WATERPROOFING MATERIALS

CONCRETE & MORTAR ADDITIVES

TILE ADHESIVES & GROUTS

REPAIRING MATERIALS & PAINTS

PREMIXED PLASTERS

INDUSTRIAL FLOORINGS

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PRODUCT TECHNICAL CATALOGUE 2012-13

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building quality

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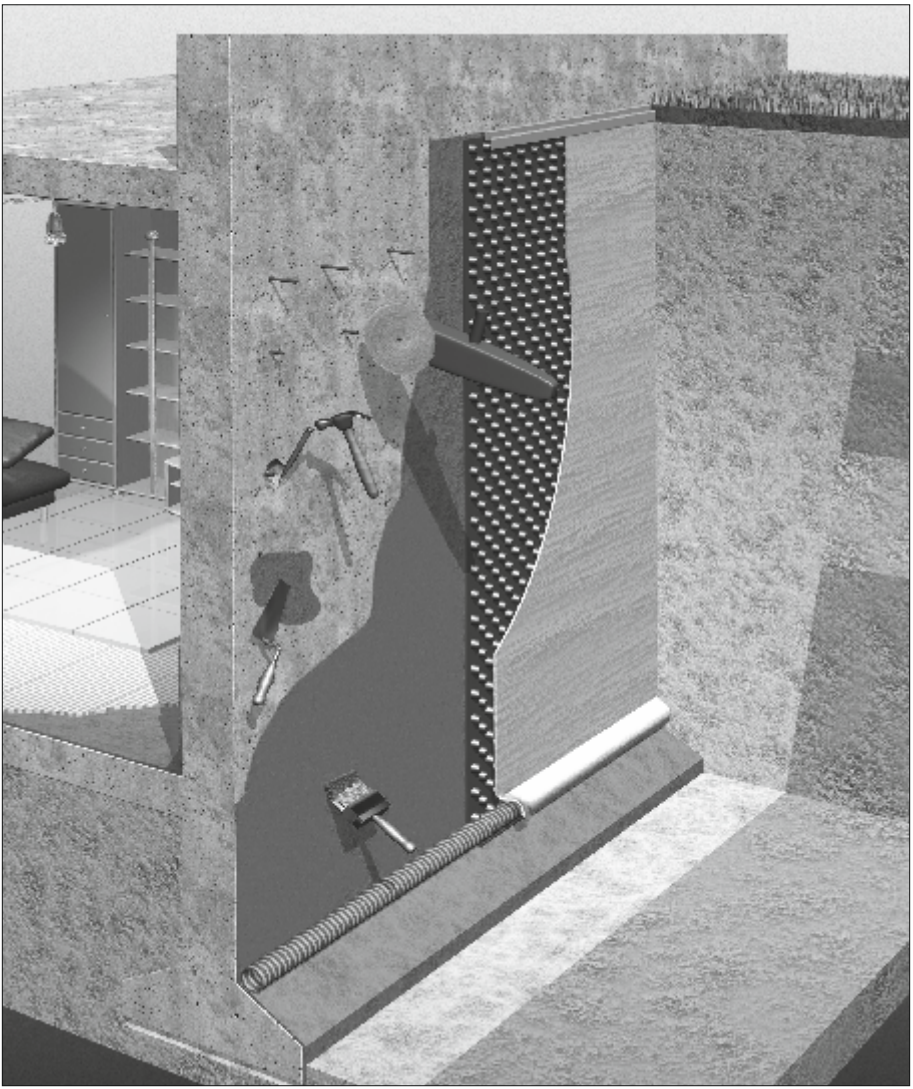
1. WATERPROOFING MATERIALS



AQUAMAT

Cement-based brushable sealing slurry

Description

AQUAMAT is a cement-based brushable sealing slurry, offering:

- Total waterproofing against water pressure up to 7 atm, according to DIN 1048.
- Protection of concrete from carbonization.
- Perfect bonding to substrates like concrete, masonry, plaster, even under negative pressure conditions.
- Suitability for potable water tanks as well as surfaces in direct contact with food products, according to W-347.
- Simple and low-cost application.
- No corrosive effects on steel in reinforced concrete.
- It is classified as a coating for surface protection of concrete, according to EN 1504-2. Certificate Nr. 2032-CPD-10.11.

Fields of application

Waterproofing of concrete elements, masonry or plaster surfaces, in cases ranging from simple moisture to water pressure. Suitable for waterproofing of basements, water tanks, swimming pools, sewage tanks, etc. Enables internal waterproofing of underground areas, since it can withstand negative pressure (water from the substrate side), due to its absolute bonding to the substrate.

In cases that the surface to be sealed shows or is expected to show haircracks, like terraces, balconies etc., the 2-component brushable sealing slurries AQUAMAT-FLEX and AQUAMAT-ELASTIC are recommended.

Technical data

Form:	cementitious powder
Colors:	grey, white, light blue
Water demand:	8,25 lit/25 kg bag

AQUAMAT Grey

Bulk density of dry mortar:	1,39 ± 0,05 kg/lit
Bulk density of fresh mortar:	1,91 ± 0,07 kg/lit
Compressive strength: (EN 196-1)	25,00 ± 3,00 N/mm^2
Flexural strength: (EN 196-1)	6,50 ± 1,00 N/mm^2
Adhesion strength: (EN 1542)	2,34 N/mm^2
Permeability to CO_2: (EN 1062-6 Method A, requirement: Sd > 50m)	177m
Capillary absorption and permeability to water: (EN 1062-3, requirement of EN 1504-2: w < 0,1)	0,093 kg/m^2·h^{0,5}
Water vapour permeability: (EN ISO 7783-2, Class I: Sd < 5 m)	Sd=0,12m
Working time:	1 h at +20^{0}C

AQUAMAT White

Bulk density of dry mortar:	1,39 ± 0,05 kg/lit
Bulk density of fresh mortar:	1,89 ± 0,07 kg/lit
Compressive strength: (EN 196-1):	29,00 ± 3,00 N/mm^2
Flexural strength: (EN 196-1)	7,50 ± 1,00 N/mm^2
Adhesion strength: (EN 1542)	2,34 N/mm^2
Permeability to CO_2: (EN 1062-6 Method A, requirement: Sd > 50m)	153m
Capillary absorption and permeability to water: (EN 1062-3, requirement of EN 1504-2: w < 0,1)	0,093 kg/m^2·h^{0,5}
Water vapour permeability: (EN ISO 7782-2, Class I: Sd < 5 m)	Sd=0,80m
Working time:	1 h at +20^{0}C

AQUAMAT

AQUAMAT LIght blue

Bulk density of dry mortar:	1,39 ± 0,05 kg/lit
Bulk density of fresh mortar:	1,89 ± 0,07 kg/lit
Compressive strength: (EN 196-1)	19,50 ± 3,00 N/mm^2
Flexural strength: (EN 196-1):	5,10 ± 1,00 N/mm^2
Adhesion strength (EN 1542):	2,34 N/mm^2
Permeability to CO_2: (EN 1062-6 Method A, requirement: Sd > 50m)	193m
Capillary absorption and permeability to water: (EN 1062-3, requirement of EN 1504-2: w < 0,1)	0,093 kg/m^2·h^{0,5}
Water vapour permeability: (EN ISO 7782-2, Class I: Sd < 5 m)	Sd=1,80m
Working time:	1 h at +20^{0}C

Loading capacity:

- Rain: after approx. 3 hours.
- Walking: after approx. 1 day.
- Water pressure: after approx. 7 days.
- Filling of foundation pit: after approx. 3 days.

Directions for use

1. Preparation of substrate

- The substrate must be clean, free of oily residues, loose material, dust, etc.
- Water leaks should be plugged with AQUAFIX rapid setting cement.
- Any cavities in concrete surface should be filled in and smoothed out using DUROCRET or RAPICRET or a cement mortar improved with ADIPLAST, after all loose aggregate has been removed and the surface has been well moistened.
- Distance pieces and form wires should be cut in a depth of about 3 cm into the concrete and the holes should be sealed as above.
- Existing work joints are opened longwise in an inverse V shape in a depth of about 3 cm and are subsequently filled in as above.
- Corners like the joint of floors with vertical walls, should be filled in and rounded smooth with DUROCRET or a cement mortar improved with ADIPLAST (formation of a groove having a triangle cross-section with 5-6 cm sides).
- In case of masonry walls, joints should be first filled in carefully; otherwise, it is recommended to apply a cement mortar layer first improved with ADIPLAST.
- For sealing of basements in old buildings, any existing wall plastering should be removed to a height of up to 50 cm above the water level and then proceed as above.
- Wherever flat surface formation is required (smoothing etc.) the use of DUROCRET, RAPICRET or a mortar improved with ADIPLAST is recommended.

2. Application

AQUAMAT is gradually added to water under continuous stirring, until a uniform viscous mixture is formed, suitable for brush application. The entire surface of the substrate should be dampened well, but without creating any water puddles. The material is applied in 2 or more layers, depending on the water effect and the consumption required. Layers thicker than 1 mm should be avoided, because the material may crack. Each new coating is applied after the previous one has dried. The freshly coated surface should be protected from direct sunlight, rain, frost, quick drying.

Elastification

For waterproofing on unstable substrates subject to vibrations or contraction-expansion effects, such as gypsum boards, chipboards, in-floor heating floors, terraces, balconies etc. it is necessary that AQUAMAT be elastified with the addition of 5-10 kg of ADIFLEX-B to 25 kg of AQUAMAT plus a quantity of water depending on the desired workability.

AQUAMAT

Consumption

Depending on the water effect, minimum consumption and relevant thickness should be as follows:

Water effect	Minimum consumption	Minimum thickness
Moisture	2,0 kg/m^2	Approx. 1,5 mm
Water without pressure	3,0 kg/m^2	Approx. 2,0 mm
Water pressure	3,5-4,0 kg/m^2	Approx. 2,5 mm

Packaging

AQUAMAT is supplied in paper bags of 25 kg in grey, white and light blue color and in plastic bags of 5 kg in grey and white color.

Shelf-life-Storage

- Paper bags of 25 kg:
  12 months from production date
- Plastic bags of 5 kg:
  18 months from production date

All of the above are in effect if the product is stored in original unopened packaging, in places protected from moisture and frost.

Remarks

- In cases of water pressure care should be taken, so that pumping, which keeps the water level low, does not stop before AQUAMAT has hardened sufficiently. About 7 days are needed.
- In cases of water pressure the structure which bears the sealing layer (wall, floor etc.) should have been suitably designed in order to possess the static sufficiency to withstand hydrostatic pressure.
- In cases of walkable floors, the floor surface sealed with AQUAMAT should be protected with a cement mortar layer.
- Application temperature should be between +5^{0}C and +30^{0}C.
- AQUAMAT contains cement and reacts as alkaline with water, so it is classified as irritant.
- Consult the usage risks and safety advice written on the bag.

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EN 1504-2

Surface protection products

Coating

Permeability to CO_2:	Sd > 50m
Water vapour permeability:	Class I (permeable)
Capillary absorption:	w < 0,1 kg/m^2·h^{0,5}
Adhesion strength:	≥ 1,0 N/mm^2
Reaction to fire:	Euroclass A1
Dangerous substances comply with 5.4	

The technical information and instructions supplied in this datasheet are based on the knowledge and experience of the department of Research and Development of our company and on results from long-term applications of the product in practice. The recommendations and suggestions referring to the use of the product are provided without guarantee, since site conditions during the applications are beyond the control of our company. Therefore the user is responsible for confirming that the chosen product is suitable for the envisaged application. The present edition of this technical data sheet automatically cancels any previous one concerning the same product.

AQUAMAT-MONOFLEX

Flexible, fibre-reinforced, one component, cement-based brushable sealing slurry

Description

AQUAMAT-MONOFLEX is a flexible, one component, brushable sealing slurry. It consists of a cement-based powder mortar enriched with resins. After hardening it forms a seamless and jointless membrane offering the following advantages:

- Crack-bridging ability.
- Total waterproofing against water pressure up to 7 atm, according to DIN 1048.
- Protection of concrete from carbonization.
- Vapor permeability.
- Resistance to ageing.
- Bonding to wet surfaces without priming.
- Simple and low-cost application.
- It is classified as a coating for surface protection of concrete, according to EN 1504-2. Certificate Nr. 2032-CPD-10.11.

Fields of application

It is used for waterproofing surfaces made of concrete, plaster, bricks, cement-blocks, mosaic etc., which show or are expected to show hair-cracks. Ideal for application on terraces, rooftops, balconies and damp areas to be covered with tiles (bathrooms, kitchens), inverted roofs, underground reservoirs, flower stands etc. It can also be used for waterproofing of basements, internally or externally, against humidity or water under pressure.

Technical data

Basis:	cementitious powder
Colors:	grey
Mixing ratio with water:	
• Application by brush:	5,4 l/ 18 kg bag
• Application by trowel:	4,1-4,5 l/ 18 kg bag
Mixing time:	2-3 min
Bulk density of dry mortar:	1,1 ± 0,2 kg/l
Bulk density of fresh mortar:	1,5 ± 0,2 kg/l
Compressive strength (EN 196-1):	4,8 ± 0,1 N/mm^2
Flexural strength: (EN 196-1):	5,40 ± 1,0 N/mm^2
Adhesion strength (EN 1542):	1,30 ± 0,3 N/mm^2
Permeability to CO_2: (EN 1062-6 Method A, requirement: Sd > 50m)	100 m
Capillary absorption and permeability to water: (EN 1062-3, requirement of EN 1504-2: w < 0,1)	0,092 kg/m^{2}h^{0,5}
Water vapour permeability: (EN ISO 7782-2, Class I < 5m)	Sd=0,5m
Pot life:	60 min at +20^{0}C

Loading capacity:
- Rain: after approx. 1 day.
- Tile fixing: after approx. 1 day.
- Water pressure: after approx. 7 days.
- Filling of foundation pit: after approx. 3 days.

Directions for use

1. Preparation of substrate

- The substrate must be clean, free of oily residues, loose material, dust, etc.
- Water leaks should be plugged with AQUAFIX rapid setting cement.
- Any cavities in concrete surface should be filled in and smoothed out using DUROCRET or RAPICRET or a cement mortar improved with ADIPLAST, after all loose aggregate has been removed and the surface has been well moistened.
- Distance pieces and form wires should be cut in a depth of about 3 cm into the concrete and the holes should be sealed as above.
- Existing work joints are opened longwise in an inverse V shape in a depth of about 3 cm and are subsequently filled in as above.
- Corners like the joint of floors with vertical walls, should be filled in and rounded smooth with DUROCRET or a cement mortar improved with ADIPLAST (formation of a

AQUAMAT-MONOFLEX

groove having a triangle cross-section with 5-6 cm sides).
- In case of masonry walls, joints should be first filled in carefully, otherwise it is recommended to apply a cement mortar layer first improved with ADIPLAST.
- For sealing of basements in old buildings, any existing wall plastering should be removed to a height of up to 50 cm above the water level and then proceed as above.
- Wherever flat surface formation is required (smoothing, slope creation etc.) the use of DUROCRET, RAPICRET or a mortar improved with ADIPLAST is recommended.

2. Application

The material is applied by brush or trowel in 2 or more layers, depending on the water effect.The content of the 18 kg bag is added into the 5,4 l of water for application by brush, or to 4,1-4,5 l of water for application by trowel, under continuous stirring, until a uniform viscous mixture is formed, suitable for brush application. The entire surface of the substrate should be dampened well, but without creating any water puddles.
Layers thicker than 1 mm should be avoided, because the material may crack. Each new coating is applied after the previous one has dried. The freshly coated surface should be protected from high temperatures, rain and frost.
On spots where AQUAMAT-MONOFLEX needs to be locally reinforced (inside corners where groove formation is not necessary, junctions etc.), the use of a 10 cm wide polyester cloth tape (30 g/m^2) or a fiberglass mesh tape (65 g/m^2) is recommended.

Consumption

Depending on the water effect, minimum consumption and relevant thickness should be as follows:

Water effect	Minimum consumption	Minimum thickness
Moisture	2,0 kg/m^2	Approx. 1,5 mm
Water without pressure	3,0 kg/m^2	Approx. 2,0 mm
Water pressure	3,5-4,0 kg/m^2	Approx. 2,5 mm

Packaging

18 kg bag.

Shelf-life-Storage

12 months from production date if stored in original, unopened packaging, in places protected from moisture and frost.

Remarks

- In cases of water pressure care should be taken, so that pumping which keeps the water level low does not stop before AQUAMAT-MONOFLEX has hardened sufficiently. About 7 days are needed.
- In cases of water pressure the structure that bears the sealing layer (wall, floor etc.) should have been suitably designed in order to withstand water pressure.
- Temperature during application should be between +5^{0}C and +30^{0}C.
- AQUAMAT-MONOFLEX contains cement and reacts as alkaline with water, so it is classified as irritant.
- Consult the usage risks and safety advice written on the bag.

AQUAMAT-MONOFLEX

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EN 1504-2

Surface protection products

Coating

Permeability to CO_2:	Sd > 50m
Water vapour permeability:	Class I (permeable)
Capillary absorption:	w < 0,1 kg/m^2·h^{0,5}
Adhesion strength:	≥ 1,0 N/mm^2
Reaction to fire:	Euroclass F
Dangerous substances	comply with 5.4

Τα τεχνικά δεδομένα και οι οδηγίες που περιλαμβάνονται σε αυτό το τεχνικό φυλλάδιο είναι αποτέλεσμα της γνώσης και της εμπειρίας από το τμήμα έρευνας και ανάπτυξης της εταιρείας, καθώς και από την εφαρμογή του προϊόντος στην πράξη. Οι συστάσεις και οι προτάσεις σχετικά με την χρήση των υλικών γίνονται χωρίς εγγύηση, αφού οι εκάστοτε συνθήκες κατά την εφαρμογή τους είναι πέρα του ελέγχου της εταιρείας μας. Για τον λόγο αυτό είναι ευθύνη του χρήστη να βεβαιωθεί πως το υλικό είναι κατάλληλο για την προβλεπόμενη εφαρμογή και τις συνθήκες του έργου. Η έκδοση του παρόντος τεχνικού φυλλαδίου ακυρώνει κάθε άλλη προηγούμενη έκδοση για το ίδιο προϊόν.

CE TÜV CERT EN ISO 9001

AQUAMAT-FLEX

Flexible, 2-component cement-based brushable sealing slurry

Description

AQUAMAT-FLEX is a flexible, 2-component, brushable sealing slurry. It consists of a cement-based powder mortar (component A) and a resin emulsion (component B). After hardening it forms a seamless and jointless membrane offering the following advantages:

- Crack-bridging ability.
- Total waterproofing against water pressure up to 7 atm, according to DIN 1048.
- Protection of concrete from carbonization.
- Vapor permeability.
- Suitability for potable water tanks as well as surfaces in direct contact with food products, according to W-347.
- Resistance to ageing.
- Bonding to wet surfaces without priming.
- Simple and low-cost application.
- It is classified as a coating for surface protection of concrete, according to EN 1504-2. Certificate Nr. 2032-CPD-10.11.

Fields of application

It is used for waterproofing surfaces made of concrete, plaster, bricks, cement-blocks, mosaic etc., that show or are expected to show hair-cracks. Ideal for application on terraces, rooftops, balconies and damp areas to be covered with tiles (bathrooms, kitchens), inverted roofs, underground reservoirs, flower stands etc. It can also be used for waterproofing of basements, internally or externally, against humidity or water under pressure.

Technical data

	Component A	Component B
Basis:	cementitious powder	acrylic polymer dispersion
Colors:	grey	white
Mixing ratio:	3 parts by weight	1 part by weight

Combined product:

Mixing time:	3 min
Compressive strength: (EN 196-1)	17,50 ± 2,50 N/mm^2
Flexural strength: (EN 196-1)	8,50 ± 1,50 N/mm^2
Adhesion strength: (EN 1542)	2,30 N/mm^2
Permeability to CO_2: (EN 1062-6 Method A, requirement: Sd > 50m)	145 m
Capillary absorption and permeability to water: (EN 1062-3, requirement of EN 1504-2: w < 0,1)	0,092 kg/m^2·h^{0,5}
Water vapour permeability: (EN ISO 7782-2, Class I < 5m)	Sd=0,45m
Pot life:	60 min at +20^{0}C
Bulk density:	1,90 kg/lit

Loading capacity:

- Rain: after approx. 4 hours.
- Walking: after approx. 1 day.
- Tile fixing: after approx. 1 day.
- Water pressure: after approx. 7 days.
- Filling of foundation pit: after approx. 3 days.

Directions for use

1. Preparation of substrate

- The substrate must be clean, free of oily residues, loose material, dust, etc.
- Water leaks should be plugged with AQUAFIX rapid setting cement.
- Any cavities in concrete surface should be filled in and smoothed out using DUROCRET or RAPICRET or a cement mortar improved with ADIPLAST, after all loose aggregate has been removed and the surface has been well moistened.

AQUAMAT-FLEX

- Distance pieces and form wires should be cut in a depth of about 3 cm into the concrete and the holes should be sealed as above.
- Existing work joints are opened longwise in an inverse V shape in a depth of about 3 cm and are subsequently filled in as above.
- Corners like the joint of floors with vertical walls, should be filled in and rounded smooth with DUROCRET or a cement mortar improved with ADIPLAST (formation of a groove having a triangle cross-section with 5-6 cm sides).
- In case of masonry walls, joints should be first filled in carefully, otherwise it is recommended to apply a cement mortar layer first improved with ADIPLAST.
- For sealing of basements in old buildings, any existing wall plastering should be removed to a height of up to 50 cm above the water level and then proceed as above.
- Wherever flat surface formation is required (smoothing, slope creation etc.) the use of DUROCRET, RAPICRET or a mortar improved with ADIPLAST is recommended.

2. Application

The content of the 25 kg bag (component A) is added into the 8 kg of liquid (component B) under continuous stirring, until a uniform viscous mixture is formed, suitable for brush application. The entire surface of the substrate should be dampened well, but without creating any water puddles. The material is applied by brush in 2 or more layers, depending on the water effect. Layers thicker than 1 mm should be avoided, because the material may crack. Each new coating is applied after the previous one has dried. The freshly coated surface should be protected from high temperatures, rain and frost.

On spots where AQUAMAT-FLEX needs to be locally reinforced (inside corners where groove formation is not necessary, junctions etc.), the use of a 10 cm wide polyester cloth tape (30 g/m^2) or a fiberglass mesh tape (65 g/m^2) is recommended.

Consumption

Depending on the water effect, minimum consumption and relevant thickness should be as follows:

Water effect	Minimum consumption	Minimum thickness
Moisture	2,0 kg/m^2	Approx. 1,5 mm
Water without pressure	3,0 kg/m^2	Approx. 2,0 mm
Water pressure	3,5-4,0 kg/m^2	Approx. 2,5 mm

Packaging

- Combined 33 kg package (25 kg cement-based powder mortar bag + 8 kg emulsion resin plastic container).
- Combined 18 kg package (13,6 kg cement-based powder mortar bag + 4,4 kg emulsion resin plastic container).

Shelf-life-Storage

Component A:
12 months from production date if stored in original, unopened packaging, in places protected from moisture and frost.

Component B:
12 months from production date if stored in original, unopened packaging, in temperature between +5°C and +35°C. Protect from direct sun exposure and frost.

Remarks

- In cases of water pressure care should be taken, so that pumping which keeps the water level low does not stop before AQUAMAT-FLEX has hardened sufficiently. About 7 days are needed.
- In cases of water pressure the structure that bears the sealing layer (wall, floor etc.) should have been suitably designed in order to withstand water pressure.

AQUAMAT-FLEX

- In cases of operational walkable floors, the floor surface sealed with AQUAMAT-FLEX should be protected with a cement mortar layer.
- Temperature during application should be between +5^{0}C and +30^{0}C.
- The A-component of AQUAMAT-FLEX contains cement and reacts as alkaline with water, so it is classified as irritant.
- Consult the usage risks and safety advice written on the bag.

Volatile organic compounds (VOCs)

According to the Directive 2004/42/CE (Annex II, table A), the maximum allowed VOC content for the product subcategory j, type WB is 140g/l (2010) for the ready to use product. The ready to use product AQUAMAT-FLEX contains max <140 g/l VOC.

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EN 1504-2

Surface protection products

Coating

Permeability to CO_2:	Sd > 50m
Water vapour permeability:	Class I (permeable)
Capillary absorption:	w < 0,1 kg/m^2·h^{0,5}
Adhesion strength:	≥ 1,0 N/mm^2
Reaction to fire:	Euroclass F

Dangerous substances comply with 5.4

The technical information and instructions supplied in this datasheet are based on the knowledge and experience of the department of Research and Development of our company and on results from long-term applications of the product in practice. The recommendations and suggestions referring to the use of the product are provided without guarantee, since site conditions during the applications are beyond the control of our company. Therefore the user is responsible for confirming that the chosen product is suitable for the envisaged application. The present edition of this technical data sheet automatically cancels any previous one concerning the same product.

AQUAMAT-ELASTIC

Elastic, 2-component cement-based brushable sealing slurry

Description

AQUAMAT-ELASTIC is an elastic, 2-component, brushable sealing slurry. It consists of a cement-based powder mortar (component A) and a resin emulsion (component B). After hardening it forms a seamless and jointless membrane offering the following advantages:

- Crack-bridging ability.
- Total waterproofing against water pressure up to 7 atm, according to DIN 1048-5.
- Protection of concrete from carbonization.
- Vapor permeability.
- Suitability for potable water tanks as well as surfaces in direct contact with food products, according to W-347.
- Resistance to ageing.
- Bonding to slightly wet surfaces without priming.
- Simple and low-cost application.
- Suitable for green roofs, flower beds etc. as it is certified for being root resistant
- It is classified as a coating for surface protection of concrete, according to EN 1504-2. Certificate Nr. 2032-CPD-10.11.

AQUAMAT-ELASTIC is tested from the accredited German Institute MFPA Leipzig and complies to the wet duty classifications A0 and B0 in accordance with the ZDB technical directive 2010 "Verbundabdichtungen" for waterproofing under plates and tiles in household wet areas as well as balconies and terraces.

Certifications numbers: P-SAC 02/5.1/11-147 as waterproofing system under plates and tiles, P-SAC 02/5.1/11- 305 (as waterproofing system for buidings).

Also complies to the requirements according to the German building regulation DIN 18195-2 Tab. 7 & 8 (crack bridging, bonding, waterproofing, resistance to alkalis etc.) for waterproofing under plates and tiles as well as for waterproofing of building structures.

Fields of application

It is used for waterproofing surfaces made of concrete, plaster, bricks, cement-blocks, mosaic, gypsum boards, wood, metal etc. Ideal in cases where high elasticity and good adhesion of the waterproofing layer is required. Suitable for waterproofing of substrates that suffer from contraction-expansion or vibration and show or are expected to show capillary cracks, such as terraces, balconies, above ground water tanks, swimming pools, inverted roofs etc. It can also be used for waterproofing of basements, internally or externally, against humidity or water under pressure.

Technical data

	Component A	Component B
Basis:	cementitious powder	acrylic polymer dispersion
Colors:	grey, white	white
Mixing ratio:	2,5 parts by weight	1 part by weight

Combined product:

Mixing time:	3 min
Pot life:	60 min at +20^{0}C
Bulk density:	1,80 kg/lit
Compressive strength: (EN 196-1)	10,00 ± 2,00 N/mm^2
Flexural strength: (EN 196-1)	6,00 ± 1,00 N/mm^2
Adhesion strength: (EN 1542)	≥ 1,0 N/mm^2

AQUAMAT-ELASTIC Grey

Permeability to CO_2: (EN 1062-6 Method A, requirement: Sd > 50m)	140m
Capillary absorption and permeability to water: (EN 1062-3, requirement of EN 1504-2: w < 0,1)	0,0594 kg/m^2·h^{0,5}

AQUAMAT-ELASTIC

Water vapour permeability: (EN ISO 7783-2, Class I: Sd < 5m)	Sd=0,61 m

AQUAMAT-ELASTIC White

Permeability to CO_2: (EN 1062-6 Method A, requirement: Sd > 50m)	129 m
Capillary absorption and permeability to water: (EN 1062-3, requirement of EN 1504-2: w < 0,1)	0,009 kg/m^2·h^{0,5}
Water vapour permeability: (EN ISO 7783-2, Class I: Sd < 5 m)	Sd=0,21 m

Loading capacity:

- Rain: after approx. 4 hours.
- Walking: after approx. 1 day.
- Tile fixing: after approx. 1 day.
- Water pressure: after approx. 7 days.
- Filling of foundation pit: after approx. 3 days.

Directions for use

1. Preparation of substrate

- The substrate must be clean, free of oily residues, loose material, dust, etc.
- Water leaks should be plugged with AQUAFIX rapid setting cement.
- Any cavities in concrete surface should be filled in and smoothed out using DUROCRET or RAPICRET or a cement mortar improved with ADIPLAST, after all loose aggregate has been removed and the surface has been well moistened.
- Distance pieces and form wires should be cut in a depth of about 3 cm into the concrete and the holes should be sealed as above.
- Existing work joints are opened longwise in an inverse V shape in a depth of about 3 cm and are subsequently filled in as above.
- Corners like the joint of floors with vertical walls, should be filled in and rounded smooth with DUROCRET or a cement mortar improved with ADIPLAST (formation of a groove having a triangle cross-section with 5-6 cm sides).
- In case of masonry walls, joints should be first filled in carefully, otherwise it is recommended to apply a cement mortar layer first improved with ADIPLAST.
- For sealing of basements in old buildings, any existing wall plastering should be removed to a height of up to 50 cm above the water level and then proceed as above.
- Wherever flat surface formation is required (smoothing, slope creation etc.) the use of DUROCRET, RAPICRET or a mortar improved with ADIPLAST is recommended.

2. Application

The content of the 25 kg bag (component A) is added into the 10 kg of liquid (component B) under continuous stirring, until a uniform viscous mixture is formed, suitable for brush application. The entire surface of the substrate should be dampened well, but without creating any water puddles. The material is applied by brush in 2 or more layers, depending on the water effect. Layers thicker than 1 mm should be avoided, because the material may crack. Each new coating is applied after the previous one has dried. The freshly coated surface should be protected from high temperatures, rain and frost.On spots where AQUAMAT-ELASTIC needs to be locally reinforced (inside corners where groove formation is not necessary, junctions etc.), the use of a 10 cm wide polyester cloth tape (30 g/m^2) or a fiberglass mesh tape (65 g/m^2) is recommended.

Consumption

Depending on the water effect, minimum consumption and relevant thickness should be as follows:

AQUAMAT-ELASTIC

Water effect	Minimum consumption	Minimum thickness
Moisture	2,0 kg/m^2	Approx. 1,5 mm
Water without pressure	3,0 kg/m^2	Approx. 2,0 mm
Water pressure	3,5-4,0 kg/m^2	Approx. 2,5 mm

Packaging

- Combined 35 kg package (25 kg cement-based powder mortar + 10 kg emulsion resin), in grey and white color.
- Combined 18 kg package (12,9 kg cement-based powder mortar + 5,1 kg emulsion resin), in white color.
- Combined 7 kg package (5 kg cement-based powder mortar + 2 kg emulsion resin), in white color.

Shelf-life - Storage

Component A:
12 months from production date if stored in original, unopened packaging, in places protected from moisture and frost.

Component B:
12 months from production date if stored in original, unopened packaging, in temperature between +5°C and +35°C. Protect from direct sun exposure and frost.

Remarks

- In cases of water pressure care should be taken, so that pumping which keeps the water level low does not stop before AQUAMAT-ELASTIC has hardened sufficiently. About 7 days are needed.
- In cases of water pressure the structure that bears the sealing layer (wall, floor etc.) should have been suitably designed in order to withstand water pressure.
- In cases of operational walkable floors, the floor surface sealed with AQUAMAT- ELASTIC should be protected with a cement mortar layer.
- Temperature during application should be between +5°C and +30°C.
- The A-component of AQUAMAT-ELASTIC contains cement and reacts as alkaline with water, so it is classified as irritant.
- Consult the usage risks and safety advice written on the bag.

Volatile organic compounds (VOCs)

According to the Directive 2004/42/CE (Annex II, table A), the maximum allowed VOC content for the product subcategory j, type WB is 140g/l (2010) for the ready to use product. The ready to use product AQUAMAT-ELASTIC contains max <140 g/l VOC.

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2032-CPD-10.11

EN 1504-2

Surface protection products

Coating

Permeability to CO_2:	Sd > 50m
Water vapour permeability:	Class I (permeable)
Capillary absorption:	w < 0,1 kg/m^2·h^{0,5}
Adhesion strength:	≥ 1,0 N/mm^2
Reaction to fire:	Euroclass F
Dangerous substances comply with 5.4	

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CE TÜV CERT EN ISO 9001

AQUAMAT-PENETRATE

Brushable sealing slurry with crystallizing effect

Description

AQUAMAT-PENETRATE is a cement-based brushable sealing slurry. It consists of special active chemicals, which in contact with moisture and the present hydroxide of lime, react and form insoluble bonds (crystals). These crystals block the capillary pores and seal the shrinkage cracks inside the concrete, so as to prevent any further water absorption.
AQUAMAT-PENETRATE offers a great range of advantages. In detail:

- It remains permanent active, and therefore, it continuously protects construction from any water presence.
- It bonds excellent to concrete, under both positive and negative water pressure.
- It is capable of sealing hair cracks with width up to 0,4 mm, even if they appear afterwards.
- There is no influence on the waterproofing of construction, in case of damaging the concrete surface or the waterproofing layer.
- It protects construction from corrosion of the reinforcement steel of concrete.
- It is suitable for potable water tanks as well as surfaces in direct contact with food products, according to W-347.
- It does not influence “breathing” of the concrete element.
- It has simple and low-cost application.
- It is classified as a coating for surface protection of concrete, according to EN 1504-2. Certificate Nr. 2032-CPD-10.11.

Fields of application

Waterproofing of concrete elements, in cases ranging from simple moisture to water pressure. Suitable for waterproofing of basements, foundations, manholes, water tanks, sewage tanks.

Technical data

Form:	cementitious powder
Color:	grey
Water demand:	6,40-6,70 l/bag 20 kg
Bulk density of dry mortar:	1,06 ± 0,05 kg/lit
Bulk density of fresh mortar:	2,00 ± 0,05 kg/lit
Compressive strength: (EN 196-1)	17,00 ± 2,00 N/mm^2
Flexural strength: (EN 196-1)	6,00 ± 1,00 N/mm^2
Adhesion strength (EN 1542):	1,60 N/mm^2
Permeability to CO_2: (EN 1062-6 Method A, requirement: Sd > 50m)	181m
Capillary absorption and permeability to water: (EN 1062-3, requirement of EN 1504-2: w < 0,1)	0,095 kg/m^2·h$^{0.5}$
Water vapour permeability: (EN ISO 7783-2, Class I < 5m)	Sd=1,40m
Working time:	30-60 min at +20ºC

Loading capacity:

- Rain: after approx. 1 day.
- Walking: after approx. 1 day.
- Water pressure: after approx. 3 days.
- Filling of foundation pit: after approx. 3 days.

Directions for use

1. Preparation of substrate

- The substrate must be clean, free of oily residues, loose material, dust, etc. Very smooth surfaces should be treated with mild sand blasting or water-blasting.
- Water leaks should be plugged with AQUAFIX rapid setting cement.
- Any cavities in concrete surface should be filled in and smoothed out using DUROCRETE-PENETRATE, after all loose aggregate has been removed and the surface has been well moistened.

AQUAMAT-PENETRATE

- Distance pieces and form wires should be cut in a depth of about 3 cm into the concrete and the holes should be sealed as above.
- Existing work joints in width of 0,4 mm are opened longwise in an inverse V shape in a depth of about 3 cm and are subsequently filled in as above.
- Corners like the joint of floors with vertical walls should be filled in and rounded smooth with DUROCRETE-PENETRATE (formation of a groove having a triangle cross-section with 5-6 cm sides).

2. Application
The content of the AQUAMAT-PENETRATE is added into the water under continuous stirring, until a uniform viscous mixture is formed, suitable for brushing or spraying. The application surface must be slightly wet, but without staying water. The product is being applied by brush or by spraying in two layers. Layers thicker than 1 mm should be avoided, because the material may crack. The second coating is applied while the previous one has is still fresh (fresh on fresh). In case the first layer has already dried, the surface must be dampened before the application of the second layer. Also, after the end of application, the final surface must be treated for the next 2-3 days, so as for the waterproofing layer to remain slightly wet and harden properly.

Damping of the surface should be done by the time AQUAMAT-PENETRATE has started hardening in order to avoid the possibility of damages. Usually 2-3 times water spraying is enough per day.
The applied surface should be protected from rain and frost.

Consumption

Approximately 0,75 kg/m^2/layer.

Packaging

AQUAMAT-PENETRATE is available in 20 kg paper bags.

Shelf-life - Storage

12 months from production date if stored in original, unopened packaging, in places protected from moisture and frost.

Remarks

- In cases of water pressure the structure which bears the sealing layer (wall, floor etc.) should have been suitably designed in order to possess the static sufficiency to withstand hydrostatic pressure.
- In case of using AQUAMAT-PENETRATE in reservoirs for drinkable water, after product application, the surface should be washed out with plane water carefully before the final filling of the reservoir.
- AQUAMAT-PENETRATE can also be dusted on the lean concrete and the steel reinforments. This procedure will not only protect the reinforcement itself but will prevent the rising dampness into the foundation slab. The lean concrete should be dampened until saturation and AQUAMAT-PENETRATE will be dusted using between 1,5-2,5 kg/m^2.The concrete of the foundation slab can be poured after one hour, once AQUAMAT-PENETRATE has hardened and adhered to the lean concrete, endeavoring not to damage the previous application.
- Temperature during application should be at least +5^{o}C.
- AQUAMAT-PENETRATE contains cement and reacts as alkaline with water, so it is classified as irritant.
- Consult the usage risks and safety advice written on the bag.
- In case AQUAMAT-PENETRATE is to be covered with mortar, plaster or tiles, consult the Technical Department of ISOMAT.

AQUAMAT-PENETRATE

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EN 1504-2

Surface protection products

Coating

Permeability to CO_2:	Sd > 50m
Water vapour permeability:	Class I (permeable)
Capillary absorption:	w < 0,1 kg/m^2·h^{0,5}
Adhesion strength:	≥ 1,0 N/mm^2
Reaction to fire:	Euroclass A1

Dangerous substances comply with 5.4

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AQUAFIX

Rapid-setting cement for instant sealing of water leaks

Description

AQUAFIX is a rapid setting cement, showing a hardening reaction that starts immediately after the addition of water.

Fields of application

AQUAFIX is used for instant plugging of local or superficial water leaks, rapid fixing and anchoring.

Technical data

Form:	cementitious powder
Color:	grey
Water demand:	30% by weight of AQUAFIX
Bulk density of dry mortar:	1,24 ± 0,05 kg/lit
Compressive strength:	22,00 ± 2,00 N/mm^2
Flexural strength:	6,10 ± 0,50 N/mm^2
Pot life:	1-2 min at +20^{0}C
Beginning of hardening:	immediately after addition of water

Directions for use

1. Preparation of substrate
The substrate must be stable, clean and it should be watered, if it is dry. Any loose material (paint, plaster etc.) should be removed to expose a stable substrate (concrete or masonry).

2. Application

a) Sealing of leaking points
The point of leakage (crack, hole etc.) should be widened in a conical shape (getting wider as it goes deeper) in a depth of 2-3 cm. AQUAFIX should be gradually added to water and quickly mixed, until it becomes like wet clay. The mixture is pressed onto the leak and held there for approx. 1 minute, until it hardens sufficiently.

b) Sealing of leaking surfaces
The wet and stable surface should be first brushed with AQUAMAT-F (consumption 200-300 g/m^2) and immediately after with AQUAMAT (consumption approx. 1,5 kg/m^2). While this layer is still fresh, it should be rubbed with AQUAFIX powder (consumption 1,0-1,5 kg/m^2) until the surface dries. Afterwards the surface should be brushed again with AQUAMAT-F, followed by at least 2 layers of AQUAMAT, until a total thickness of 2-4 mm is achieved. If there is a possibility for cracking, AQUAMAT-FLEX or AQUAMAT-ELASTIC are recommended for the last 2 layers.

Consumption

Approx. 1,6 kg AQUAFIX are required to prepare 1 lit of hardened mixture.

Packaging

1 kg, 5 kg and 15 kg.

Shelf-life - Storage

12 months from production date if stored in original, unopened packaging, in places protected from moisture and frost.

Remarks

- Application temperature should be between +5^{0}C and +30^{0}C.
- In cases of extensive work or applications requiring increased thickness, AQUAFIX may be mixed with 1-3 parts by volume of sand, before the addition of water. In this case there will be a slight increase of setting time. Also, setting time may be extended as desired with the addition of ordinary cement.
- During application the use of rubber gloves is recommended.
- Material that has started to set must not be softened again with water.
- Tools should be cleaned with water, immediately after use.
- The product contains cement, which reacts as alkaline with water and is classified as irritant.
- Consult the directions for safe use and precautions written on the packaging.

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TÜV CERT EN ISO 9001

DUROPRIMER-SG

Epoxy primer for oil contaminated concrete floors and vapour barrier

Description

DUROPRIMER-SG is a 2-component, solvent-free epoxy system, suitable for wet substrates. Due to its high density DUROPRIMER-SG displaces the water from the capillaries of concrete floors and acts like a protection against capillar rising oil and other chemical substances.
DUROPRIMER-SG is resistant to chemicals rising from the soil with an excellent bonding on wet concrete surfaces.
It is classified as SR-B2,0 according to EN 13813.

Fields of application

It is used as a primer for oil contaminated, but cleaned concrete surfaces that will be covered with epoxy layers of DUROFLOOR system.
Also it is suitable for substrates that are still damp or having problems with rising moisture.

Technical data

Basis:	2-component epoxy resin
Color:	light beige
Viscosity:	approx. 700 mPa·s at +23°C
Density:	1,75 kg/lit
Mixing proportion (A:B):	100 : 20 by weight
Pot life:	approx. 60 min at +23°C
Walkability:	after 24 h at +23°C
Successive layer:	after 24 h at +23°C
Final strength:	after 7 days at +23°C
Water-vapour permeability	
• EN 12086:	Sd > 1100 m
• EN ISO 7783-2:	Class III (low)
Minimum hardening temperature:	+8°C
Adhesive strength:	3 N/mm² (breaking point of concrete)

Cleaning of tools:
Tools should be cleaned with SM-12 solvent immediately after use.

Directions for use

1. Substrate
Oil contaminated surfaces should first be cleaned with an emulsifying cleaning agent (e.g. FD-CLEAN) in accordance with the application instructions. Subsequently the surfaces should be cleaned with a high pressure water jet pump. Then the generated wastes should be collected and removed.

DUROPRIMER-SG should be apllied on a surface that it is still wet but its pores aren't fully saturated with water. This can be verified if, by slightly dampening the surface, the new quantity of water is fully absorbed by the substrate in short time. Should the surface get dry after the cleaning step, the oil rises up and prevents the bonding of DUROPRIMER-SG to the surface.

Note: Oil contaminated surfaces are particularly problematical. For more information we recommend that you consult our Technical Department.

Application of DUROPRIMER-SG on wet substrates or on substrates with rising moisture is possible only if the pores of the surface aren't fully saturated with water.

DUROPRIMER-SG

2. Mixing of the components
Components A (resin) and B (hardener) are packed in two separate containers, having the correct predetermined mixing proportion by weight. The whole quantity of component B is added into component A.
Mixing of the 2 components should take place for about 5 minutes, using a low revolution mixer (300 rpm). It is important to stir the mixture thoroughly near the sides and bottom of the container, to achieve uniform dispersion of the hardener.

3. Application
DUROPRIMER-SG is poured on the floor and is brushed thoroughly in order to penetrate into the substrate. Then it is rolled in order to distribute the material evenly on the surface of the floor.
The application of the qualified DUROFLOOR system follows within 24 hours and after the primer has hardened.

4. Consumption
Depending on the substrate and the way of application the consumption of DUROPRIMER-SG is between 600-1000 g/m^2. The consumption of the quartz sand (Ø 0,3-0,8 mm) for spreading is approx. 1,5 kg/m^2.

Packaging

DUROPRIMER-SG is supplied in packages (A+B) of 10 kg, with components A and B having the fixed weight proportion.

Shelf-life - Storage

12 months from date of production if stored in original sealed packaging, in areas protected from humidity and direct sun exposure. Recommended storage temperature between +5°C and +35°C.

Remarks

- The workability of epoxy materials is affected by their temperature. The ideal temperature of application is between +15°C and +25°C so that the product will be easy to use and cure as prescribed. Room temperature below +15°C will expand the curing time and temperature above +30°C will accelerate the curing time. In winter time a mild preheating of the product is recommended, while in summer time to store the materials in a cool room before the application.
- Epoxy layers should be protected from moisture for 4-6 hours after application. Moisture may whiten the surface or/and make it sticky. It may also disturb hardening. Faded or sticky layers in parts of the surface should be removed by grinding or milling and laid again.
- In case that longer time than predicted interferes between the application of successive layers or in case that old floors are going to be laid again, the surface should be thoroughly cleaned and ground before application of the new layer.
- After hardening, DUROPRIMER-SG is totally safe for health.
- Before application, study the safety advice mentioned on the product's labels.

Volatile organic compounds (VOCs)

According to the Directive 2004/42/CE (Annex II, table A), the maximum allowed VOC content for the product subcategory h, type SB is 750g/l (2010) for the ready to use product. The ready to use product DUROPRIMER-SG contains max <750 g/l VOC.

DUROPRIMER-SG

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EN 13813 SR-B2,0
Primer

Reaction to fire: NPD
Release of corrosive substances: SR
Water permeability : NPD
Wear resistance: NPD
Bond strength: B2,0
Impact resistance: NPD
Sound insulation: NPD
Sound absorption: NPD
Thermal resistance: NPD
Chemical resistance: NPD

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AQUAMAT-ADMIX

Crystalline waterproofing admixture for concrete

Description

AQUAMAT ADMIX is an admixture in powder form.
It consists of cement and special active chemicals, which react with moisture and free lime in fresh concrete, creating insoluble crystalline compounds. These crystals seal the capillaries and minor shrinkage cracks inside concrete and thus they offer protection against penetration of water under strong hydrostatic pressure.

It offers the following advantages:

- Water impermeability against water pressure from either the positive or the negative surface of concrete.
- Reduces significantly the capillary absorption of water.
- It remains permanently active for the life of the structure and therefore, it continuously protects the construction from any water penetration.
- It is capable of sealing hairline cracks up to 0,4 mm width, even if they appear after the setting of concrete.
- It does not influence the vapour permeability of the concrete element.
- It protects the steel reinforcement of concrete from corrosion.
- It has no air entraining action.
- It is free of chlorides and other corrosive ingredients.
- It is compatible with all kinds of Portland cement.

Fields of application

AQUAMAT ADMIX is suitable for any type of concrete element that is constantly or temporarily in contact with water, such as foundations, basements, water tanks, tunnels, canals, sewage and wastes treatment tanks, swimming pools etc.

Technical data

Form:	powder
Color:	grey
Density of dry mortar:	0,97 ± 0,1 kg/l

Directions for use

As AQUAMAT ADMIX is in powder form, it should never be added directly to wet concrete. This could cause clumping and the admixture will not be dispersed properly.

1st way: Addition in the aggregates:
AQUAMAT ADMIX is added first into the aggregates and thoroughly mixed for 2-3 minutes with about 50% of the required mixing water, before cement and the residual water are added. The concrete should be mixed for at least 2-3 minutes to ensure good distribution of AQUAMAT ADMIX in the concrete mass.

2nd way: Addition in the concrete truck mixer:
First AQUAMAT ADMIX is mixed separately with water in the following ratio: 20 kg of AQUAMAT ADMIX with 25,5 l of water, in order to form a slurry. Then this slurry is added in the wet concrete in a dosage of 1,80 - 2,20 kg of slurry per 100 kg of cement. Further mixing must take place for at least 5 minutes in order to achieve a homogenous mix.

Dosage

0,8-1,0 kg per 100 kg of cement.

Packaging

20 kg paper bags.

Shelf-life - Storage

12 months from production date if stored in original, unopened packaging, in places protected from moisture and frost.

AQUAMAT-ADMIX

Remarks

- AQUAMAT ADMIX might affect the setting time and the final strength of concrete. Both of these effects depend on the concrete mix design. Trial mixes should be carried out in order to determine the actual effect in concrete.
- AQUAMAT ADMIX contains cement and reacts as alkaline with water, so it is classified as irritant.
- In the case of addition of AQUAMAT ADMIX in the form of slurry into the wet concrete, the water-cement ratio of concrete is not significantly altered, as except of adding water contained in the slurry, cement is added as well that is contained in AQUAMAT ADMIX.
- Consult the usage risks and safety advice written on the bag.

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TÜV CERT EN ISO 9001

PLASTIPROOF

Plasticizer, type A - Concrete waterproofing admixture

Description

PLASTIPROOF is a liquid admixture acting as a concrete plasticizer and waterproofing agent (ASTM C-494: Type A), offering the following advantages:

- Significantly increases water impermeability, against either water pressure or capillary absorption.
- Improves workability without addition of water.
- Has no air entraining action.
- It is free of chlorides and other corrosive ingredients.
- It is compatible with all kinds of Portland cement.

Certified with the CE marking as a concrete Water Reducing/Plasticizing & Water Resisting admixture according to EN 934-2:T2 & T9, certificate number: 0906-CPD-02412007.

Fields of application

PLASTIPROOF is a necessary aid for preparing high strength concrete, exposed concrete, pumpable concrete etc.
It is suitable for any type of concrete element that is constantly or temporarily in contact with water, such as foundations, basements, water tanks, tunnels, canals, sewage and wastes treatment tanks, swimming pools etc.

Technical data

Color:	dark brown
Density:	1,08 - 1,14 kg/lit
pH:	8,00 2,00
Maximum chloride content:	chloride free
Maximum alkali content:	≤ 4,0% by weight

Directions for use

PLASTIPROOF can be added:
- Into the mixing water during the preparation of concrete.
- Into the ready-mixed concrete, just before use.

In this case, the concrete truck mixer should rotate for an additional 3-5 minutes, to achieve uniform dispersion into the concrete mass.

Dosage

0,2-0,5 kg per 100 kg of cement.

Packaging

PLASTIPROOF is supplied in plastic containers of 5 kg, 20 kg, in drums of 240 kg and in tanks of 1000 kg.

Shelf-life - Storage

18 months from production date if stored in original, unopened packaging, in temperature between +5°C and +35°C. Protect from direct sun exposure and frost.

Remarks

- An excessive dosage may cause retardation of setting time, without negatively affecting the final strength.

PLASTIPROOF

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0906-CPD-02412007

EN 934-2:2009

PLASTIPROOF

Water Reducing/Plasticizing & Water Resisting admixture for concrete
EN 934-2: T.2 & T.9

Max chloride content: chloride free

Max alkali content: ≤ 4,0 % by weight

Corrosive behaviour [1]: -

Dangerous substances: none

[1]:Only required when placed in the market of a member state which regulates these items

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CE TÜV CERT EN ISO 9001

ISOFLEX

Brushable elastomeric waterproofing membrane

Description

ISOFLEX is a brushable, solvent-free, elastomeric, waterproofing membrane for terraces, offering:

- Continuous, elastic, waterproof, vapor-permeable sealing layer, without forming seams or joints.
- Excellent bonding to various substrates like concrete, wood, metal and to any type of waterproofing membranes.
- High elasticity.
- High weather resistance and durability.
- High solar reflectance and infrared thermal emittance, exceeding the energy star requirements. It can lower the roof temperature and help reduce the amount of air conditioning needed.
- Application possibility also to uneven substrates.

It is certified with the CE marking as a coating for surface protection of concrete, according to EN 1504-2. Certificate Nr. 2032-CPD-10.11.

Fields of application

ISOFLEX is ideal for the waterproofing of terraces, balconies etc. It is also a simple and safe solution for difficult areas (corners, edges, joints between adjacent different materials) and for isolated sealing of cracks.
Furthermore, it can be used as a cool roof paint due to its high solar reflectance and infrared thermal emittance.

Technical data

Colors:	white, redbrown
Hardness according to SHORE A:	50
Density:	1,43 kg/lit
Elongation at break: (ASTM D 412)	626%
Waterproofing:	7 atm, acc. DIN 1048
Capillary absorption: (EN 1062-3, requirement of EN 1504-2: w < 0,1)	0,01 kg/m^2·h^{0,5}
Permeability to CO_2: (EN 1062-6)	Sd > 50m
Water vapour permeability: (permeable) (EN ISO 7783-2, Class I < 5m)	Sd=0,80m
Adhesion strength: (EN 1542, requirement for flexible systems 0,8 N/mm^2)	1,3 N/mm^2
Artificial weathering: (EN 1062-11, after 2000h)	Pass (no blistering, cracking or flaking)
Reaction to fire: (EN 13501-1)	Euroclass F
Solar reflectance: (ASTM E903-96)	90%
Infrared thermal emmitance : (ASTM E408-71)	ε = 0,86
Minimum application temperature:	+5^{0}C
Temperature resistance:	from -15^{0}C to +100^{0}C
Viscosity:	100.000 mPa·s

Directions for use

1. Substrate
The substrate must be dry, clean, free of grease, loose particles, dust etc. Any existing cavities in concrete should be repaired in advance. A priming follows, using the special primer ISO-PRIMER with a consumption of approx. 200 g/m^2.

ISOFLEX

2. Application

a) Total sealing of the surface
ISOFLEX is applied by brush or roller in 2 layers, after the primer has dried. The second layer should follow crosswise after the first one has dried.
In areas of severe cracks, it is recommended to reinforce ISOFLEX with 10 cm wide fiberglass-mesh tape (65 g/m^2) or polyester-fiber tape (30 g/m^2) along the cracks. In detail, after the primer has dried, first layer of ISOFLEX is applied along the cracks and, while still fresh, the 10 cm wide fiberglass-mesh or polyester-fiber tape is embedded lengthwise.
Subsequently, two more layers of ISOFLEX are applied over the entire surface.
Consumption: approximately 1,5 kg/m^2, depending on the substrate.

In case of dense, multiple cracks appearing all over the surface, it is strongly recommended to reinforce thoroughly ISOFLEX membrane with 100 cm wide strips of fiberglass mesh (65 g/m^2) or polyester-fiber (30 g/m^2). The placed strips shall overlap one another by 5-10 cm.
In detail, after the primer has dried, a first layer of ISOFLEX is applied as wide as the upcoming reinforcement, and, while still fresh, strip of fiberglass mesh or polyester-fiber is embedded. The same application procedure follows over the remaining surface. Subsequently, two more layers of ISOFLEX are applied over the entire surface.
Consumption: approximately 2,0-2,5 kg/m^2, depending on the substrate and the type of reinforcement.
b) Local sealing of cracks
In this case, the primer is placed to the substrate only across the cracks at a width of 10-12 cm. After the primer has dried, first ISOFLEX layer is applied and, while still fresh, a 10 cm wide fiberglass-mesh (65 g/m^2) or polyester-fiber tape (30 g/m^2) is embedded lengthwise.
Subsequently two more ISOFLEX layers are applied along the cracks covering completely the reinforcement.
Consumption: approximately 200-250 g/m of crack's length.
Tools should be cleaned with water while ISOFLEX is still fresh.

Packaging

ISOFLEX is supplied in plastic containers of 1 kg, 5 kg, 15 kg, 25 kg and in drums of 150 kg.

Shelf-life - Storage

12 months from production date if stored in original, unopened packaging, in temperature between +5°C and +35°C. Protect from direct sun exposure and frost.

Volatile organic compounds (VOCs)

According to the Directive 2004/42/CE (Annex II, table A), the maximum allowed VOC content for the product subcategory i, type WB is 140g/l (2010) for the ready to use product. The ready to use product ISOFLEX contains max <140 g/l VOC.

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Surface protection products
Coating

Permeability to CO_2:	Sd > 50m
Water vapour permeability:	Class I (permeable)
Capillary absorption:	w < 0,1 kg/m^2·h$^{0.5}$
Adhesion strength:	≥ 0,8 N/mm^2
Artificial weathering:	Pass
Reaction to fire:	Euroclass F
Dangerous substances comply with 5.4	

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ISOFLEX-T25

Brushable elastomeric waterproofing membrane

Description

ISOFLEX-T25 is a brushable, solvent-free, elastomeric, waterproofing membrane for terraces. It has high elasticity and durability even to extreme temperature conditions (from -25ºC to +120ºC). It offers:

- Continuous, elastic, waterproof, vapor-permeable sealing layer, without forming seams or joints.
- Excellent bonding to various substrates like concrete, wood, metal and to any type of waterproofing membranes.
- High weather resistance and durability.
- High solar reflectance and infrared thermal emittance, exceeding the energy star requirements. It can lower the roof temperature and help reduce the amount of air conditioning needed.
- Application possibility also to uneven substrates.

It is certified with the CE marking as a coating for surface protection of concrete, according to EN 1504-2. Certificate Nr. 2032-CPD-10.11.

Fields of application

ISOFLEX-T25 is ideal for the waterproofing of terraces, balconies etc. It is also a simple and safe solution for difficult areas (corners, edges, joints between adjacent different materials) and for isolated sealing of cracks.
Furthermore, it can be used as a cool roof paint due to its high solar reflectance and infrared thermal emittance.

Technical data

Colors:	white, redbrown
Density:	1,44 kg/lit
Elongation at break: (ASTM D 412):	> 400%
Waterproofing:	7 atm acc. DIN 1048
Capillary absorption: (EN 1062-3, requirement of EN 1504-2: w < 0,1)	0,03 kg/m^2·h^{0,5}
Permeability to CO_2: (EN 1062-6)	Sd > 50m
Water vapour permeability: (permeable) (EN ISO 7783-2, Class I < 5m)	Sd=0,84m
Adhesion strength: (EN 1542, requirement for flexible systems without trafficking: 0,8 N/mm^2)	1,4 N/mm^2
Artificial weathering: (EN 1062-11, after 2000h)	Pass (no blistering, cracking or flaking)
Reaction to fire: (EN 13501-1)	Euroclass F
Solar reflectance: (ASTM E903-96)	89%
Infrared thermal emmitance : (ASTM E408-71)	ε = 0,90
Minimum application temperature:	+5ºC
Temperature Resistance:	from -25^{0}C to +120^{0}C
Drying time at +20^{0}C: (EN ISO 2811-1)	6 h (in touch)

Directions for use

1. Substrate
The substrate must be dry, clean, free of grease, loose particles, dust etc. Any existing cavities in concrete should be repaired in advance. A priming follows, using the special primer ISO-PRIMER with a consumption of approx. 200 g/m^2.

ISOFLEX-T25

2. Application

a) Total sealing of the surface

ISOFLEX-T25 is applied by brush or roller in 2 layers, after the primer has dried. The second layer should follow crosswise after the first one has dried.
In areas of severe cracks, it is recommended to reinforce ISOFLEX-T25 with 10 cm wide fiberglass-mesh tape (65 g/m^2) or polyester-fiber tape (30 g/m^2) along the cracks. In detail, after the primer has dried, first layer of ISOFLEX-T25 is applied along the cracks and, while still fresh, the 10 cm wide fiberglass-mesh or polyester-fiber tape is embedded lengthwise. Subsequently, two more layers of ISOFLEX-T25 are applied over the entire surface.
Consumption: 1,0-1,5 kg/m^2, depending on the substrate.

In case of dense, multiple cracks appearing all over the surface, it is strongly recommended to reinforce thoroughly ISOFLEX-T25 membrane with 100 cm wide strips of fiberglass mesh (65 g/m^2) or polyester-fiber (30 g/m^2). The placed strips shall overlap one another by 5-10 cm.
In detail, after the primer has dried, a first layer of ISOFLEX-T25 is applied as wide as the upcoming reinforcement, and, while still fresh, strip of fiberglass mesh or polyester-fiber is embedded. The same application procedure follows over the remaining surface.
Subsequently, two more layers of ISOFLEX-T25 are applied over the entire surface.
Consumption: approximately 2,0-2,5 kg/m^2, depending on the substrate and the type of reinforcement.

b) Local sealing of cracks

In this case, the primer is placed to the substrate only across the cracks at a width of 10-12 cm. After the primer has dried, first ISOFLEX-T25 layer is applied and, while still fresh, a 10 cm wide fiberglass-mesh (65 g/m^2) or polyester-fiber tape (30 g/m^2) is embedded lengthwise.
Subsequently two more ISOFLEX-T25 layers are applied along the cracks covering completely the reinforcement.
Consumption: approximately 200-250 g/m of crack's length.
Tools should be cleaned with water while ISOFLEX-T25 is still fresh.

Packaging

ISOFLEX-T25 is supplied in plastic containers of 1 kg, 5 kg, 15 kg, 25 kg and in drums of 150 kg.

Shelf-life - Storage

12 months from production date if stored in original, unopened packaging, in temperature between +5°C and +35°C. Protect from direct sun exposure and frost.

Volatile organic compounds (VOCs)

According to the Directive 2004/42/CE (Annex II, table A), the maximum allowed VOC content for the product subcategory i, type WB is 140g/l (2010) for the ready to use product. The ready to use product ISOFLEX-T25 contains max <140 g/l VOC.

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Surface protection products
Coating

Permeability to CO_2:	Sd > 50m
Water vapour permeability:	Class I (permeable)
Capillary absorption:	w < 0,1 kg/m^2·h^{0,5}
Adhesion strength:	≥ 0,8 N/mm^2
Artificial weathering:	Pass
Reaction to fire:	Euroclass F

Dangerous substances comply with 5.4

The technical information and instructions supplied in this datasheet are based on the knowledge and experience of the department of Research and Development of our company and on results from long-term applications of the product in practice. The recommendations and suggestions referring to the use of the product are provided without guarantee, since site conditions during the applications are beyond the control of our company. Therefore the user is responsible for confirming that the chosen product is suitable for the envisaged application. The present edition of this technical data sheet automatically cancels any previous one concerning the same product.

ISO-PRIMER

Primer of brushable elastomeric waterproofing membranes

Description

Aqueous polymer emulsion. It ensures the proper adhesion of the brushable, elastomeric membranes ISOFLEX and ISOFLEX-T25, when waterproofing terraces with porous substrates. By penetrating inside the pores of the substrate, it acts as a bonding layer between ISOFLEX or ISOFLEX-T25 and the substrate.

Fields of application

ISO-PRIMER is used as a primer for securing the adhesion of ISOFLEX and ISOFLEX-T25 on substrates like concrete, masonry, plaster, gypsum boards, chip boards etc.

Technical data

MForm:	emulsion
Color:	white
Density:	1,01 kg/lit

Directions for use

1. Substrate
The surface to be primed must be dry and free of dust, grease, dirt etc.

2. Application
ISO-PRIMER is thoroughly stirred and applied uniformly on the substrate by brush, roller or spraying, before the application of the brushable elastomeric liquid membranes.

Consumption

200-300 g/m^2, depending on the absorptivity of the substrate.

Packaging

ISO-PRIMER is available in plastic containers of 1 kg, 5 kg and 20 kg.

Shelf-life - Storage

12 months from production date if stored in original, unopened packaging, in temperature between +5^{o}C and +35^{o}C. Protect from direct sun exposure and frost.

Remarks

- Temperature during the application should be at least +5^{o}C.

Volatile organic compounds (VOCs)

According to the Directive 2004/42/CE (Annex II, table A), the maximum allowed VOC content for the product subcategory h, type WB is 30g/l (2010) for the ready to use product. The ready to use product ISO-PRIMER contains max <30 g/l VOC.

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TÜV CERT EN ISO 9001

ISOFLEX-PU

Brushable polyurethane waterproofing membrane

Description

ISOFLEX-PU is an one component brushable, polyurethane, waterproofing membrane for terraces, offering:

- Excellent mechanical, chemical, thermal, UV and weather resistance properties as it is based on pure elastomeric hydrophobic polyurethane resins.
- Continuous, elastic, waterproof, vapor-permeable sealing layer, without forming seams or joints.
- Excellent bonding to various substrates like concrete, cement-mortars, wood, and to any type of waterproofing membrane.
- Application possibility also to uneven substrates.
- Suitable for green roofs, flower beds etc. as it is certified for being root resistant.

ISOFLEX-PU is certified with the CE marking according to ETAG-005 (Part 6) specifications by DIBT (Deutsches Institut für Bautechnik). Certificate number: ETA-11/0239.

Fields of application

ISOFLEX-PU is ideal for the waterproofing of terraces. It is also a simple and safe solution for the local sealing of cracks on the terrace.
Also it can be used in construction, in highway engineering , for the waterproofing of bridge decks, tunnels etc.

Technical data

Form:	pre-polymer polyurethane
Color:	white
Elongation at break: (ASTM D 412)	900 ± 80%
Hardness according to SHORE A:	65 ± 5
Waterproofing:	7 atm, acc. DIN 1048

ETAG-005 specifications

Water vapour diffusion resistance factor μ:	≈1830
Resistance to wind loads:	≥ 50 KPa
Reaction to fire:	Class E
Working life: (10 years minimum)	W2
Climatic zones:	M and S, suitable for Moderate and Severe climatic zones:

	Moderate	Severe
Annual radiant exposure on horizontal surface	< 5 GJ/m^2	≥ 5 GJ/m^2
Average temperature of the warmest month per year	< 22°C	≥ 22°C

Imposed loads: P1 to P3

Category	User load	Examples of accesibility
P1	Low	Non-accesible
P2	Moderate	accessible for maintenance of the roofing only
P3	Normal	accessible for maintenance of plant and equipment and to pedestrian traffic

Roof Slope: S1 to S4

Category	Slope (%)	Examples of possible related effects
S1	< 5	Frost, UV, standing water, user loads, fire behaviour, plant roots.
S2	5-10	Frost, UV, standing water, user loads, fire behaviour, plant roots.
S3	10-30	Sliding, frost, UV, standing water, user loads, fire behaviour, plant roots.
S4	> 30	Sliding, UV, user loads, fire behaviour

ISOFLEX-PU

Lowest surface temperature: TL3

Highest surface temperature: TH4

(Temperature resistance: from -30°C to +90°C)

Directions for use

1. Substrate
The substrate must be dry, clean, free of grease, loose particles, dust etc. Any existing cavities in concrete should be repaired in advance. Porous surfaces should be treated with the special primer PRIMER-PU, with a consumption of approx. 200 g/m^2.

2. Application
a) Total sealing of the surface
ISOFLEX-PU is applied by brush or roller in 2 layers. The first layer is applied 2-3 hours after priming and while PRIMER-PU is still tacky. The second layer should follow crosswise when the first one has become walkable (approx. after 12 hours).
In areas of severe cracks, it is recommended to reinforce locally ISOFLEX-PU with a 10 cm wide fiberglass-mesh tape (65 g/m^2) or polyester-fiber tape (30 g/m^2) along the cracks. In detail, 2-3 hours after priming, first layer of ISOFLEX-PU is applied along the cracks and, while still fresh, the 10 cm wide fiberglass-mesh or polyester-fiber tape is embedded lengthwise. Subsequently, two more layers of ISOFLEX-PU are applied over the entire surface.

Consumption: approx. 1,5 kg/m^2, depending on the substrate.
In case of dense, multiple cracks all over the surface, it is strongly recommended to reinforce thoroughly ISOFLEX-PU membrane with 100 cm wide strips of fiberglass mesh (65 g/m^2) or polyester-fiber (30 g/m^2). The placed strips shall overlap one another by 5-10 cm. In detail, 2-3 hours after priming, a first layer of ISOFLEX-PU is applied as wide as the upcoming reinforcement, and, while still fresh, strip of fiberglass mesh or polyester-fiber is embedded. The same application procedure follows over the remaining surface.
Subsequently, two more layers of ISOFLEX-PU are applied over the entire surface.
Consumption: approximately 2,0-2,5 kg/m^2, depending on substrate and type of reinforcement.
b) Local sealing of cracks
In this case, the primer is placed to the substrate only across the cracks at a width of 10-12 cm. 2-3 hours after priming, first ISOFLEX-PU layer is applied and, while still fresh, a 10 cm wide fiberglass-mesh (65 g/m^2) or polyester-fiber tape (30 g/m^2) is embedded lengthwise. Subsequently two more ISOFLEX-PU layers are applied along the cracks covering completely the reinforcement.
Consumption: approximately 200-250 g/m of crack's length.
Tools should be cleaned with SM-16 solvent while ISOFLEX-PU is still fresh.

Packaging

ISOFLEX-PU is supplied in tin buckets of 1 kg, 6 kg and 25 kg.

Shelf-life-Storage

Shelf-life in sealed containers is 9 months, in frost free and dry conditions.

Remarks

- Temperature during the application and hardening of the product should be between +5°C and +35°C.
- The maximum thickness of each ISOFLEX-PU layer should not be more than 0,7 mm.
- Unsealed packages shall be used at once and cannot be restored.

ISOFLEX-PU

Volatile organic compounds (VOCs)

According to the Directive 2004/42/CE (Annex II, table A), the maximum allowed VOC content for the product subcategory i, type SB is 500g/l (2010) for the ready to use product.
The ready to use product ISOFLEX-PU contains max <500 g/l VOC.

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ETAG-005-6

Minimum layer thickness	1,6 mm
Water vapour diffusion resistance factor	μ≈1830
Resistance to wind loads	≥ 50 Kpa
Resistance to spreading fire and radiant heat	NPD
Reaction to fire	Class E
Statement on dangerous substances	Does not contain any
Resistance to slipperiness	NPD
Levels of use categories according to ETAG 005 with relation to:	
Working life	W2
Climatic zones	M and S
Imposed loads	P1 to P3
Roof Slope	S1 to S4
Lowest surface temperature	TL3
Highest surface temperature	TH4

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PRIMER-PU

Primer of ISOFLEX-PU

Description

One component, polyurethane primer with solvents. It ensures the proper adhesion of the brushable, elastomeric liquid membrane ISOFLEX-PU, when waterproofing terraces with porous substrates. By penetrating inside the pores of the substrate, it acts as a bonding layer between ISOFLEX-PU and the substrate.

Fields of application

PRIMER-PU is used as a primer for securing the adhesion of ISOFLEX-PU on substrates like concrete, cement-mortars, wood etc.

Technical data

Form:	pre-polymer polyurethane
Color:	light yellow
Successive layer:	after 1-3 h

Directions for use

1. Substrate
The surface to be primed must be dry, free of dust, grease, dirt etc.

2. Application
PRIMER-PU is thoroughly stirred and uniformly applied on the substrate by brush, roller or spraying, before the application of ISOFLEX-PU.
Tools should be cleaned with SM-16 solvent while PRIMER-PU is still fresh.

Consumption

200-300 g/m^2, depending on the absorptivity of the substrate.

Packaging

PRIMER-PU is available in tin buckets of 5 kg and 17 kg.

Shelf-life - Storage

Shelf-life in sealed containers is at least 9 months, in frost free and dry conditions.

Remarks

- Temperature during the application and hardening of the product should be between +5^{o}C and +35^{o}C.
- Unsealed packages shall be used at once and cannot be restored.

Volatile organic compounds (VOCs)

According to the Directive 2004/42/CE (Annex II, table A), the maximum allowed VOC content for the product subcategory h, type SB is 750g/l (2010) for the ready to use product.

The ready to use product PRIMER-PU contains max <750 g/l VOC.

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TÜV CERT EN ISO 9001

SM-16

Special solvent for polyurethane coatings

Description

SM-16 is a solvent used for diluting (thinning) polyurethane coatings.

Fields of application

SM-16 is used for diluting the brushable polyurethane waterproofing membrane ISOFLEX-PU, especially when it is going to be applied by spraying, and also for cleaning the tools used for the application of ISOFLEX-PU. Furthermore SM-16 can clean the tools from epoxy coatings residues and can be used as a thinner for epoxy coatings.

Technical data

Color:	transparent
Density:	0,87 kg/l

Directions for use

SM-16 is used for diluting polyurethane coatings when added in portions up to 10%.

Consumption

Consumption varies depending on the nature of the application.

Packaging

5 l containers.

Shelf-life - Storage

Shelf-life in sealed containers is 36 months, protected from high temperature (<+30^{o}C).

Remarks

- When applying SM-16 in closed areas, care should be taken for proper ventilation.
- Smoking and use of flame should be avoided during application.
- Before use, read safety instructions on the product label.

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TÜV CERT EN ISO 9001

AQUAMAT-MONOFLEX

Flexible, fibre-reinforced, one component, cement-based brushable sealing slurry

Description

AQUAMAT-MONOFLEX is a flexible, one component, brushable sealing slurry. It consists of a cement-based powder mortar enriched with resins. After hardening it forms a seamless and jointless membrane offering the following advantages:

- Crack-bridging ability.
- Total waterproofing against water pressure up to 7 atm, according to DIN 1048.
- Protection of concrete from carbonization.
- Vapor permeability.
- Resistance to ageing.
- Bonding to wet surfaces without priming.
- Simple and low-cost application.
- It is classified as a coating for surface protection of concrete, according to EN 1504-2. Certificate Nr. 2032-CPD-10.11.

Fields of application

It is used for waterproofing surfaces made of concrete, plaster, bricks, cement-blocks, mosaic etc., which show or are expected to show hair-cracks. Ideal for application on terraces, rooftops, balconies and damp areas to be covered with tiles (bathrooms, kitchens), inverted roofs, underground reservoirs, flower stands etc. It can also be used for waterproofing of basements, internally or externally, against humidity or water under pressure.

Technical data

Basis:	cementitious powder
Colors:	grey
Mixing ratio with water:	
• Application by brush:	5,4 l/ 18 kg bag
• Application by trowel:	4,1-4,5 l/ 18 kg bag
Mixing time:	2-3 min
Bulk density of dry mortar:	1,1 ± 0,2 kg/l
Bulk density of fresh mortar:	1,5 ± 0,2 kg/l
Compressive strength (EN 196-1):	4,8 ± 0,1 N/mm^2
Flexural strength: (EN 196-1):	5,40 ± 1,0 N/mm^2
Adhesion strength (EN 1542):	1,30 ± 0,3 N/mm^2
Permeability to CO_2: (EN 1062-6 Method A, requirement: Sd > 50m)	100 m
Capillary absorption and permeability to water: (EN 1062-3, requirement of EN 1504-2: w < 0,1)	0,092 kg/m^{2}h^{0,5}
Water vapour permeability: (EN ISO 7782-2, Class I < 5m)	Sd=0,5m
Pot life:	60 min at +20^{0}C

Loading capacity:
- Rain: after approx. 1 day.
- Tile fixing: after approx. 1 day.
- Water pressure: after approx. 7 days.
- Filling of foundation pit: after approx. 3 days.

Directions for use

1. Preparation of substrate

- The substrate must be clean, free of oily residues, loose material, dust, etc.
- Water leaks should be plugged with AQUAFIX rapid setting cement.
- Any cavities in concrete surface should be filled in and smoothed out using DUROCRET or RAPICRET or a cement mortar improved with ADIPLAST, after all loose aggregate has been removed and the surface has been well moistened.
- Distance pieces and form wires should be cut in a depth of about 3 cm into the concrete and the holes should be sealed as above.
- Existing work joints are opened longwise in an inverse V shape in a depth of about 3 cm and are subsequently filled in as above.
- Corners like the joint of floors with vertical walls, should be filled in and rounded smooth with DUROCRET or a cement mortar improved with ADIPLAST (formation of a

AQUAMAT-MONOFLEX

groove having a triangle cross-section with 5-6 cm sides).
- In case of masonry walls, joints should be first filled in carefully, otherwise it is recommended to apply a cement mortar layer first improved with ADIPLAST.
- For sealing of basements in old buildings, any existing wall plastering should be removed to a height of up to 50 cm above the water level and then proceed as above.
- Wherever flat surface formation is required (smoothing, slope creation etc.) the use of DUROCRET, RAPICRET or a mortar improved with ADIPLAST is recommended.

2. Application

The material is applied by brush or trowel in 2 or more layers, depending on the water effect.The content of the 18 kg bag is added into the 5,4 l of water for application by brush, or to 4,1-4,5 l of water for application by trowel, under continuous stirring, until a uniform viscous mixture is formed, suitable for brush application. The entire surface of the substrate should be dampened well, but without creating any water puddles.
Layers thicker than 1 mm should be avoided, because the material may crack. Each new coating is applied after the previous one has dried. The freshly coated surface should be protected from high temperatures, rain and frost.
On spots where AQUAMAT-MONOFLEX needs to be locally reinforced (inside corners where groove formation is not necessary, junctions etc.), the use of a 10 cm wide polyester cloth tape (30 g/m^2) or a fiberglass mesh tape (65 g/m^2) is recommended.

Consumption

Depending on the water effect, minimum consumption and relevant thickness should be as follows:

Water effect	Minimum consumption	Minimum thickness
Moisture	2,0 kg/m^2	Approx. 1,5 mm
Water without pressure	3,0 kg/m^2	Approx. 2,0 mm
Water pressure	3,5-4,0 kg/m^2	Approx. 2,5 mm

Packaging

18 kg bag.

Shelf-life-Storage

12 months from production date if stored in original, unopened packaging, in places protected from moisture and frost.

Remarks

- In cases of water pressure care should be taken, so that pumping which keeps the water level low does not stop before AQUAMAT-MONOFLEX has hardened sufficiently. About 7 days are needed.
- In cases of water pressure the structure that bears the sealing layer (wall, floor etc.) should have been suitably designed in order to withstand water pressure.
- Temperature during application should be between +5^{0}C and +30^{0}C.
- AQUAMAT-MONOFLEX contains cement and reacts as alkaline with water, so it is classified as irritant.
- Consult the usage risks and safety advice written on the bag.

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EN 1504-2

Surface protection products

Coating

Permeability to CO_2:	Sd > 50m
Water vapour permeability:	Class I (permeable)
Capillary absorption:	w < 0,1 kg/m^2·h^{0,5}
Adhesion strength:	≥ 1,0 N/mm^2
Reaction to fire:	Euroclass F
Dangerous substances	comply with 5.4

Τα τεχνικά δεδομένα και οι οδηγίες που περιλαμβάνονται σε αυτό το τεχνικό φυλλάδιο είναι αποτέλεσμα της γνώσης και της εμπειρίας από το τμήμα έρευνας και ανάπτυξης της εταιρείας, καθώς και από την εφαρμογή του προϊόντος στην πράξη. Οι συστάσεις και οι προτάσεις σχετικά με την χρήση των υλικών γίνονται χωρίς εγγύηση, αφού οι εκάστοτε συνθήκες κατά την εφαρμογή τους είναι πέρα του ελέγχου της εταιρείας μας. Για τον λόγο αυτό είναι ευθύνη του χρήστη να βεβαιωθεί πως το υλικό είναι κατάλληλο για την προβλεπόμενη εφαρμογή και τις συνθήκες του έργου. Η έκδοση του παρόντος τεχνικού φυλλαδίου ακυρώνει κάθε άλλη προηγούμενη έκδοση για το ίδιο προϊόν.

CE TÜV CERT EN ISO 9001

AQUAMAT-FLEX

Flexible, 2-component cement-based brushable sealing slurry

Description

AQUAMAT-FLEX is a flexible, 2-component, brushable sealing slurry. It consists of a cement-based powder mortar (component A) and a resin emulsion (component B). After hardening it forms a seamless and jointless membrane offering the following advantages:

- Crack-bridging ability.
- Total waterproofing against water pressure up to 7 atm, according to DIN 1048.
- Protection of concrete from carbonization.
- Vapor permeability.
- Suitability for potable water tanks as well as surfaces in direct contact with food products, according to W-347.
- Resistance to ageing.
- Bonding to wet surfaces without priming.
- Simple and low-cost application.
- It is classified as a coating for surface protection of concrete, according to EN 1504-2. Certificate Nr. 2032-CPD-10.11.

Fields of application

It is used for waterproofing surfaces made of concrete, plaster, bricks, cement-blocks, mosaic etc., that show or are expected to show hair-cracks. Ideal for application on terraces, rooftops, balconies and damp areas to be covered with tiles (bathrooms, kitchens), inverted roofs, underground reservoirs, flower stands etc. It can also be used for waterproofing of basements, internally or externally, against humidity or water under pressure.

Technical data

	Component A	Component B
Basis:	cementitious powder	acrylic polymer dispersion
Colors:	grey	white
Mixing ratio:	3 parts by weight	1 part by weight

Combined product:

Mixing time:	3 min
Compressive strength: (EN 196-1)	17,50 ± 2,50 N/mm^2
Flexural strength: (EN 196-1)	8,50 ± 1,50 N/mm^2
Adhesion strength: (EN 1542)	2,30 N/mm^2
Permeability to CO_2: (EN 1062-6 Method A, requirement: Sd > 50m)	145 m
Capillary absorption and permeability to water: (EN 1062-3, requirement of EN 1504-2: w < 0,1)	0,092 kg/m^2·h^{0,5}
Water vapour permeability: (EN ISO 7782-2, Class I < 5m)	Sd=0,45m
Pot life:	60 min at +20^{0}C
Bulk density:	1,90 kg/lit

Loading capacity:

- Rain: after approx. 4 hours.
- Walking: after approx. 1 day.
- Tile fixing: after approx. 1 day.
- Water pressure: after approx. 7 days.
- Filling of foundation pit: after approx. 3 days.

Directions for use

1. Preparation of substrate

- The substrate must be clean, free of oily residues, loose material, dust, etc.
- Water leaks should be plugged with AQUAFIX rapid setting cement.
- Any cavities in concrete surface should be filled in and smoothed out using DUROCRET or RAPICRET or a cement mortar improved with ADIPLAST, after all loose aggregate has been removed and the surface has been well moistened.

AQUAMAT-FLEX

- Distance pieces and form wires should be cut in a depth of about 3 cm into the concrete and the holes should be sealed as above.
- Existing work joints are opened longwise in an inverse V shape in a depth of about 3 cm and are subsequently filled in as above.
- Corners like the joint of floors with vertical walls, should be filled in and rounded smooth with DUROCRET or a cement mortar improved with ADIPLAST (formation of a groove having a triangle cross-section with 5-6 cm sides).
- In case of masonry walls, joints should be first filled in carefully, otherwise it is recommended to apply a cement mortar layer first improved with ADIPLAST.
- For sealing of basements in old buildings, any existing wall plastering should be removed to a height of up to 50 cm above the water level and then proceed as above.
- Wherever flat surface formation is required (smoothing, slope creation etc.) the use of DUROCRET, RAPICRET or a mortar improved with ADIPLAST is recommended.

2. Application

The content of the 25 kg bag (component A) is added into the 8 kg of liquid (component B) under continuous stirring, until a uniform viscous mixture is formed, suitable for brush application. The entire surface of the substrate should be dampened well, but without creating any water puddles. The material is applied by brush in 2 or more layers, depending on the water effect. Layers thicker than 1 mm should be avoided, because the material may crack. Each new coating is applied after the previous one has dried. The freshly coated surface should be protected from high temperatures, rain and frost.

On spots where AQUAMAT-FLEX needs to be locally reinforced (inside corners where groove formation is not necessary, junctions etc.), the use of a 10 cm wide polyester cloth tape (30 g/m^2) or a fiberglass mesh tape (65 g/m^2) is recommended.

Consumption

Depending on the water effect, minimum consumption and relevant thickness should be as follows:

Water effect	Minimum consumption	Minimum thickness
Moisture	2,0 kg/m^2	Approx. 1,5 mm
Water without pressure	3,0 kg/m^2	Approx. 2,0 mm
Water pressure	3,5-4,0 kg/m^2	Approx. 2,5 mm

Packaging

- Combined 33 kg package (25 kg cement-based powder mortar bag + 8 kg emulsion resin plastic container).
- Combined 18 kg package (13,6 kg cement-based powder mortar bag + 4,4 kg emulsion resin plastic container).

Shelf-life-Storage

Component A:
12 months from production date if stored in original, unopened packaging, in places protected from moisture and frost.

Component B:
12 months from production date if stored in original, unopened packaging, in temperature between +5°C and +35°C. Protect from direct sun exposure and frost.

Remarks

- In cases of water pressure care should be taken, so that pumping which keeps the water level low does not stop before AQUAMAT-FLEX has hardened sufficiently. About 7 days are needed.
- In cases of water pressure the structure that bears the sealing layer (wall, floor etc.) should have been suitably designed in order to withstand water pressure.

AQUAMAT-FLEX

- In cases of operational walkable floors, the floor surface sealed with AQUAMAT-FLEX should be protected with a cement mortar layer.
- Temperature during application should be between +5^{0}C and +30^{0}C.
- The A-component of AQUAMAT-FLEX contains cement and reacts as alkaline with water, so it is classified as irritant.
- Consult the usage risks and safety advice written on the bag.

Volatile organic compounds (VOCs)

According to the Directive 2004/42/CE (Annex II, table A), the maximum allowed VOC content for the product subcategory j, type WB is 140g/l (2010) for the ready to use product. The ready to use product AQUAMAT-FLEX contains max <140 g/l VOC.

CE

2032

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2032-CPD-10.11

EN 1504-2

Surface protection products

Coating

Permeability to CO_2:	Sd > 50m
Water vapour permeability:	Class I (permeable)
Capillary absorption:	w < 0,1 kg/m^2·h^{0,5}
Adhesion strength:	≥ 1,0 N/mm^2
Reaction to fire:	Euroclass F

Dangerous substances comply with 5.4

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AQUAMAT-ELASTIC

Elastic, 2-component cement-based brushable sealing slurry

Description

AQUAMAT-ELASTIC is an elastic, 2-component, brushable sealing slurry. It consists of a cement-based powder mortar (component A) and a resin emulsion (component B). After hardening it forms a seamless and jointless membrane offering the following advantages:

- Crack-bridging ability.
- Total waterproofing against water pressure up to 7 atm, according to DIN 1048-5.
- Protection of concrete from carbonization.
- Vapor permeability.
- Suitability for potable water tanks as well as surfaces in direct contact with food products, according to W-347.
- Resistance to ageing.
- Bonding to slightly wet surfaces without priming.
- Simple and low-cost application.
- Suitable for green roofs, flower beds etc. as it is certified for being root resistant
- It is classified as a coating for surface protection of concrete, according to EN 1504-2. Certificate Nr. 2032-CPD-10.11.

AQUAMAT-ELASTIC is tested from the accredited German Institute MFPA Leipzig and complies to the wet duty classifications A0 and B0 in accordance with the ZDB technical directive 2010 "Verbundabdichtungen" for waterproofing under plates and tiles in household wet areas as well as balconies and terraces.

Certifications numbers: P-SAC 02/5.1/11-147 as waterproofing system under plates and tiles, P-SAC 02/5.1/11- 305 (as waterproofing system for buidings).

Also complies to the requirements according to the German building regulation DIN 18195-2 Tab. 7 & 8 (crack bridging, bonding, waterproofing, resistance to alkalis etc.) for waterproofing under plates and tiles as well as for waterproofing of building structures.

Fields of application

It is used for waterproofing surfaces made of concrete, plaster, bricks, cement-blocks, mosaic, gypsum boards, wood, metal etc. Ideal in cases where high elasticity and good adhesion of the waterproofing layer is required. Suitable for waterproofing of substrates that suffer from contraction-expansion or vibration and show or are expected to show capillary cracks, such as terraces, balconies, above ground water tanks, swimming pools, inverted roofs etc. It can also be used for waterproofing of basements, internally or externally, against humidity or water under pressure.

Technical data

	Component A	Component B
Basis:	cementitious powder	acrylic polymer dispersion
Colors:	grey, white	white
Mixing ratio:	2,5 parts by weight	1 part by weight

Combined product:

Mixing time:	3 min
Pot life:	60 min at +20^{0}C
Bulk density:	1,80 kg/lit
Compressive strength: (EN 196-1)	10,00 ± 2,00 N/mm^2
Flexural strength: (EN 196-1)	6,00 ± 1,00 N/mm^2
Adhesion strength: (EN 1542)	≥ 1,0 N/mm^2

AQUAMAT-ELASTIC Grey

Permeability to CO_2: (EN 1062-6 Method A, requirement: Sd > 50m)	140m
Capillary absorption and permeability to water: (EN 1062-3, requirement of EN 1504-2: w < 0,1)	0,0594 kg/m^2·h^{0,5}

AQUAMAT-ELASTIC

Water vapour permeability: (EN ISO 7783-2, Class I: Sd < 5m)	Sd=0,61m

AQUAMAT-ELASTIC White

Permeability to CO_2: (EN 1062-6 Method A, requirement: Sd > 50m)	129m
Capillary absorption and permeability to water: (EN 1062-3, requirement of EN 1504-2: w < 0,1)	0,009 kg/m^2·h^{0,5}
Water vapour permeability: (EN ISO 7783-2, Class I: Sd < 5 m)	Sd=0,21m

Loading capacity:

- Rain: after approx. 4 hours.
- Walking: after approx. 1 day.
- Tile fixing: after approx. 1 day.
- Water pressure: after approx. 7 days.
- Filling of foundation pit: after approx. 3 days.

Directions for use

1. Preparation of substrate

- The substrate must be clean, free of oily residues, loose material, dust, etc.
- Water leaks should be plugged with AQUAFIX rapid setting cement.
- Any cavities in concrete surface should be filled in and smoothed out using DUROCRET or RAPICRET or a cement mortar improved with ADIPLAST, after all loose aggregate has been removed and the surface has been well moistened.
- Distance pieces and form wires should be cut in a depth of about 3 cm into the concrete and the holes should be sealed as above.
- Existing work joints are opened longwise in an inverse V shape in a depth of about 3 cm and are subsequently filled in as above.
- Corners like the joint of floors with vertical walls, should be filled in and rounded smooth with DUROCRET or a cement mortar improved with ADIPLAST (formation of a groove having a triangle cross-section with 5-6 cm sides).
- In case of masonry walls, joints should be first filled in carefully, otherwise it is recommended to apply a cement mortar layer first improved with ADIPLAST.
- For sealing of basements in old buildings, any existing wall plastering should be removed to a height of up to 50 cm above the water level and then proceed as above.
- Wherever flat surface formation is required (smoothing, slope creation etc.) the use of DUROCRET, RAPICRET or a mortar improved with ADIPLAST is recommended.

2. Application

The content of the 25 kg bag (component A) is added into the 10 kg of liquid (component B) under continuous stirring, until a uniform viscous mixture is formed, suitable for brush application. The entire surface of the substrate should be dampened well, but without creating any water puddles. The material is applied by brush in 2 or more layers, depending on the water effect. Layers thicker than 1 mm should be avoided, because the material may crack. Each new coating is applied after the previous one has dried. The freshly coated surface should be protected from high temperatures, rain and frost.On spots where AQUAMAT-ELASTIC needs to be locally reinforced (inside corners where groove formation is not necessary, junctions etc.), the use of a 10 cm wide polyester cloth tape (30 g/m^2) or a fiberglass mesh tape (65 g/m^2) is recommended.

Consumption

Depending on the water effect, minimum consumption and relevant thickness should be as follows:

AQUAMAT-ELASTIC

Water effect	Minimum consumption	Minimum thickness
Moisture	2,0 kg/m^2	Approx. 1,5 mm
Water without pressure	3,0 kg/m^2	Approx. 2,0 mm
Water pressure	3,5-4,0 kg/m^2	Approx. 2,5 mm

Packaging

- Combined 35 kg package (25 kg cement-based powder mortar + 10 kg emulsion resin), in grey and white color.
- Combined 18 kg package (12,9 kg cement-based powder mortar + 5,1 kg emulsion resin), in white color.
- Combined 7 kg package (5 kg cement-based powder mortar + 2 kg emulsion resin), in white color.

Shelf-life - Storage

Component A:
12 months from production date if stored in original, unopened packaging, in places protected from moisture and frost.

Component B:
12 months from production date if stored in original, unopened packaging, in temperature between +5°C and +35°C. Protect from direct sun exposure and frost.

Remarks

- In cases of water pressure care should be taken, so that pumping which keeps the water level low does not stop before AQUAMAT-ELASTIC has hardened sufficiently. About 7 days are needed.
- In cases of water pressure the structure that bears the sealing layer (wall, floor etc.) should have been suitably designed in order to withstand water pressure.
- In cases of operational walkable floors, the floor surface sealed with AQUAMAT- ELASTIC should be protected with a cement mortar layer.
- Temperature during application should be between +5°C and +30°C.
- The A-component of AQUAMAT-ELASTIC contains cement and reacts as alkaline with water, so it is classified as irritant.
- Consult the usage risks and safety advice written on the bag.

Volatile organic compounds (VOCs)

According to the Directive 2004/42/CE (Annex II, table A), the maximum allowed VOC content for the product subcategory j, type WB is 140g/l (2010) for the ready to use product. The ready to use product AQUAMAT-ELASTIC contains max <140 g/l VOC.

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2032-CPD-10.11

EN 1504-2

Surface protection products

Coating

Permeability to CO_2:	Sd > 50m
Water vapour permeability:	Class I (permeable)
Capillary absorption:	w < 0,1 kg/m^2·h^{0,5}
Adhesion strength:	≥ 1,0 N/mm^2
Reaction to fire:	Euroclass F
Dangerous substances	comply with 5.4

The technical information and instructions supplied in this datasheet are based on the knowledge and experience of the department of Research and Development of our company and on results from long-term applications of the product in practice. The recommendations and suggestions referring to the use of the product are provided without guarantee, since site conditions during the applications are beyond the control of our company. Therefore the user is responsible for confirming that the chosen product is suitable for the envisaged application. The present edition of this technical data sheet automatically cancels any previous one concerning the same product.

CE TÜV CERT EN ISO 9001

ISOGUM 4P MIN

Plastomeric bituminous membrane with chippings

Description

Plastomeric bituminous membrane based on a mixture of high-quality distilled bitumen and thermoplastic polymers (APP, IPP). The membrane is reinforced with non-woven polyester fabric (180 gr/m^2). The upper surface of the membrane is covered with mineral chippings and the under surface is covered by a thin film of polyethylene which is easily torched. At the one edge of each membrane there is a margin (10 cm width) without mineral chipping, which enables covering with adjacent membrane sheets. It has excellent strength and provides absolute waterproofing.

Fields of application

The application of ISOGUM 4P MIN is an effective, affordable and easily-applied solution for waterproofing terraces, since its special feature is that it can be stuck on the terrace surface by heating with a blowtorch, without the need of hot oxidised bitumen (bituminous adhesive).

Technical data

(According to UEA tc European directive for polymer bitumen)

Overall thickness:	4 mm
Weight:	4,0 kg/m^2
Tensile strength (long.):	700 N / 5 cm
Tensile strength (transv.):	500 N / 5 cm
Elongation at break (long.):	40 %
Elongation at break (transv.):	40
Tear strength (long.):	140 N
Tear strength (transv.):	180 N
Static puncture resistance:	3 L
Dynamic puncture resistance:	4 I
Cold flexibility:	-5°C
Heat resistance:	+120°C
Softening point:	> +150°C
Penetration at +25°C:	25 ± 5 dmm

Directions for use

1. Substrate preparation
The substrate must be free of dust, loose materials, old layers, paints etc. Where the terrace intersects the vertical structures a groove must be formed using DUROCRET polymer modified cement mortar or a cement mortar reinforced with ADIPLAST polymer latex. Over this groove the membranes should be curved along their entire length. This prevents the bituminous membranes from folding at a right angle, which could result in cracking.
The terrace, which should be dry, is primed with a suitable bituminous primer, such as ISOPAST bituminous emulsion (consumption: approx. 0,3 kg/m^2) or ISOLAC bituminous varnish (consumption: approx. 0,3 kg/m^2).

2. Application
The bituminous membranes is heated with a blowtorch and stuck to the surface, starting from the lowest points, so that there will be no joints against the water flow. The film covering the inner side of the membrane melts on contact with the flame and facilitates the bonding of the bituminous membranes to the surface. Adjacent membrane rolls should overlap each other at a width of approx. 10cm.
Once the bituminous membranes have been laid, the joints are carefully treated with a blowtorch and sealed by pressing with an iron spatula, in order to ensure good bonding.

ISOGUM 4P MIN

Where bituminous membrane with mineral chippings is used, the bonding process in the overlapped areas involves a significant loss of chips. To ensure that the membrane surface protection against UV radiation is adequate, a coating with ISOFLEX is recommended along the entire length of the joints.
The waterproofing is extended at a height of appox. 50 cm on the sides of vertical surfaces, such as parapets, staircase walls, etc., to form a watertight basin.
Although optional, it is recommended that the edges of the bituminous membranes are fixed to the vertical surfaces with aluminium strips, 2mm thick and 3cm wide. Galvanised nails and washers are used to fasten them.
The space between the strip and the vertical surface should be sealed with a special bituminous sealant (e.g. ISOMAC). Wherever there is an interruption to the waterproofing layer (pipes, rain pipes, metal bases, etc), this should be sealed with the same sealant in the same way.

Packaging

ISOGUM 4P MIN is available in rolls of 10m^2 (1m x 10m).

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TÜV CERT EN ISO 9001

ISOGUM 3V

Plastomeric bituminous membrane

Description

Plastomeric bituminous membrane reinforced with fibreglass tissue 50 g/m^2. The upper surface of the membrane is covered by a sheet of polyethylene.The under surface is covered by a thin film of polyethylene which is easily torched. It has excellent strength and provides absolute waterproofing.

Fields of application

The application of ISOGUM 3V is an effective, affordable and easily-applied solution for waterproofing terraces, since its special feature is that it can be stuck on the terrace surface by heating with a blowtorch, without the need of hot oxidised bitumen (bituminous adhesive).

Technical data

(According to UEA tc European directive for polymer bitumen)

Overall thickness:	3 mm
Weight:	3,0 kg/m^2
Tensile strength (long.):	330 N / 5 cm
Tensile strength (transv.):	220 N / 5 cm
Elongation at break (long.):	2 %
Elongation at break (transv.):	2 %
Tear strength (long.):	80 N
Tear strength (transv.):	100 N
Static puncture resistance:	3 L
Dynamic puncture resistance:	3 I
Cold flexibility:	-3°C
Heat resistance:	+120°C
Softening point:	> +150°C

Directions for use

1. Substrate preparation
The substrate must be free of dust, loose materials, old layers, paints etc. Where the terrace intersects the vertical structures a groove must be formed using DUROCRET polymer modified cement mortar or a cement mortar reinforced with ADIPLAST polymer latex. Over this groove the membranes should be curved along their entire length. This prevents the bituminous membranes from folding at a right angle, which could result in cracking.
The terrace, which should be dry, is primed with a suitable bituminous primer, such as ISOPAST bituminous emulsion (consumption: approx. 0,3 kg/m^2) or ISOLAC bituminous varnish (consumption: approx. 0,3 kg/m^2).

2. Application
The bituminous membranes is heated with a blowtorch and stuck to the surface, starting from the lowest points, so that there will be no joints against the water flow. The film covering the inner side of the membrane melts on contact with the flame and facilitates the bonding of the bituminous membranes to the surface. Adjacent membrane rolls should overlap each other at a width of approx. 10cm.
Once the bituminous membranes have been laid, the joints are carefully treated with a blowtorch and sealed by pressing with an iron spatula, in order to ensure good bonding.
The waterproofing is extended at a height of appox. 50 cm on the sides of vertical surfaces, such as parapets, staircase walls, etc., to form a watertight basin.
Although optional, it is recommended that the edges of the bituminous membranes are fixed to the vertical surfaces with aluminium strips, 2mm thick and 3cm wide. Galvanised nails and washers are used to fasten them.

ISOGUM 3V

The space between the strip and the vertical surface should be sealed with a special bituminous sealant (e.g. ISOMAC). Wherever there is an interruption to the waterproofing layer (pipes, rain pipes, metal bases, etc), this should be sealed with the same sealant in the same way.

Packaging

ISOGUM 3V is available in rolls of 10m^2 (1m x 10m).

The technical information and instructions supplied in this datasheet are based on the knowledge and experience of the department of Research and Development of our company and on results from long-term applications of the product in practice. The recommendations and suggestions referring to the use of the product are provided without guarantee, since site conditions during the applications are beyond the control of our company. Therefore the user is responsible for confirming that the chosen product is suitable for the envisaged application. The present edition of this technical data sheet automatically cancels any previous one concerning the same product.

TÜV CERT EN ISO 9001

ISODIEN 4 PF ALU

Elastomeric bituminous membrane covered with aluminium sheet

Description

Elastomeric bituminous membrane reinforced with non-woven polyester fabric 150 gr/m^2. The upper surface of the membrane is covered with aluminium sheet and the under surface is covered by a thin film of polyethylene which is easily torched. At the one edge of each membrane there is a margin (10 cm width) without aluminium cover, which enables covering with adjacent membrane sheets. It has excellent strength and provides absolute waterproofing.

Fields of application

The application of ISODIEN 4 PF ALU is an effective, affordable and easily-applied solution for waterproofing terraces, since its special feature is that it can be stuck on the terrace surface by heating with a blowtorch, without the need of hot oxidised bitumen (bituminous adhesive).

Technical data

(According to UEA tc European directive for polymer bitumen)

Overall thickness:	4 mm
Weight:	4,0 kg/m^2
Tensile strength (long.):	650 N / 5 cm
Tensile strength (transv.):	450 N / 5 cm
Elongation at break (long.):	40 %
Elongation at break (transv.):	45 %
Tear strength (long.):	150 N
Tear strength (transv.):	180 N
Static puncture resistance:	4 L
Dynamic puncture resistance:	4 I
Cold flexibility:	-15^{0}C
Heat resistance:	+100°C
Softening point:	> +125°C

Directions for use

1. Substrate preparation
The substrate must be free of dust, loose materials, old layers, paints etc. Where the terrace intersects the vertical structures a groove must be formed using DUROCRET polymer modified cement mortar or a cement mortar reinforced with ADIPLAST polymer latex. Over this groove the membranes should be curved along their entire length. This prevents the bituminous membranes from folding at a right angle, which could result in cracking.
The terrace, which should be dry, is primed with a suitable bituminous primer, such as ISOPAST bituminous emulsion (consumption: approx. 0,3 kg/m^2) or ISOLAC bituminous varnish (consumption: approx. 0,3 kg/m^2).

2. Application
The bituminous membranes is heated with a blowtorch and stuck to the surface, starting from the lowest points, so that there will be no joints against the water flow. The film covering the inner side of the membrane melts on contact with the flame and facilitates the bonding of the bituminous membranes to the surface. Adjacent membrane rolls should overlap each other at a width of approx. 10 cm.
Once the bituminous membranes have been laid, the joints are carefully treated with a blowtorch and sealed by pressing with an iron spatula, in order to ensure good bonding.
The waterproofing is extended at a height of appox. 50 cm on the sides of vertical surfaces, such as parapets, staircase walls, etc., to form a watertight basin.

ISODIEN 4 PF ALU

Although optional, it is recommended that the edges of the bituminous membranes are fixed to the vertical surfaces with aluminium strips, 2mm thick and 3cm wide. Galvanised nails and washers are used to fasten them.
The space between the strip and the vertical surface should be sealed with a special bituminous sealant (e.g. ISOMAC). Wherever there is an interruption to the waterproofing layer (pipes, rain pipes, metal bases, etc), this should be sealed with the same sealant in the same way.

Packaging

ISODIEN 4 PF ALU is available in rolls of 10m^2 (1m x 10m).

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TÜV CERT EN ISO 9001

ISOPAST

Bituminous emulsion

Description

Bituminous emulsion providing excellent adhesion on various substrates like concrete, cement screeds, metal, wood etc. and resistance to acid and alkali solutions.

Fields of application

ISOPAST is used as a primer for fixing bituminous membranes as well as for waterproofing foundations, retaining walls, floors, inclined roofs etc.

Technical data

Form:	thick jelly
Color:	brown-black
Water content:	40-50% by weight
Binding agent content:	50-60% by weight
Drying:	after 5-10 h (+20°C)
Curing:	after 2-3 days

Cleaning of tools:
Tools are cleaned with water immediately after use.

Directions for use

The surface to be sealed/protected must be completely clean and dry.
Before use, mix content well.
ISOPAST bituminous emulsion may be applied in 1-3 layers using a roll, brush or spray.

Application on vertical surfaces
1st layer: 1 part by volume of ISOPAST is diluted to 0,5 parts of water and the mixture is then applied by brush.
2nd layer: 1 part by volume of ISOPAST is diluted to 0,25 parts of water and the mixture is then applied by brush.

Application on horizontal surfaces
1st layer: 1 part by volume of ISOPAST is diluted to 0,5 parts of water and the mixture is then applied by brush. While it is still fresh, it is recommended to reinforce it with fiberglass mesh, fiberglass felt or polyester fabric.
2nd layer: 1 part by volume of ISOPAST is diluted to 0,25 parts of water and the mixture is then applied by brush.

Consumption

- On vertical surfaces: 0,2-0,3 kg/m^2/layer.
- On horizontal surfaces, without reinforcement: 0,5-1,0 kg/m^2/layer.
- On horizontal surfaces, with reinforcement: 3,5-4,0 kg/m^2 totally.

Packaging

5 kg and 19 kg tin buckets.

Shelf-life - Storage

12 months from date of production in sealed buckets, in cool, dry and frost-free conditions

Volatile organic compounds (VOCs)

According to the Directive 2004/42/CE (Annex II, table A), the maximum allowed VOC content for the product subcategory i, type WB is 140g/l (2010) for the ready to use product. The ready to use product ISOPAST contains max <140 g/l VOC.

The technical information and instructions supplied in this datasheet are based on the knowledge and experience of the department of Research and Development of our company and on results from long-term applications of the product in practice. The recommendations and suggestions referring to the use of the product are provided without guarantee, since site conditions during the applications are beyond the control of our company. Therefore the user is responsible for confirming that the chosen product is suitable for the envisaged application. The present edition of this technical data sheet automatically cancels any previous one concerning the same product.

TÜV CERT EN ISO 9001

ISOPAST-RUBBER

Elastomer bituminous emulsion

Description

Elastomer bituminous emulsion consisting of high quality asphalt, resins and special additives. It has high durability in moisture and excellent elasticity. Provides excellent adhesion on various substrates like concrete, metal, wood etc.

Fields of application

ISOPAST-RUBBER is used for waterproofing foundations, retaining walls, terraces, roofs, etc.

Technical data

Form:	thick jelly
Color:	brown-black
Water content:	25-30% by weight
Binding agent content:	70-75% by weight
Density:	1,10 kg/lit
pH:	10
Temperature resistance:	up to +120°C
Elongation at break:	> 200%
Drying time:	2-3 days

Cleaning of tools:
Tools must be cleaned thoroughly with water, immediately after use.

Directions for use

1. Substrate
The surface to be sealed/protected must be completely clean and dry.

2. Application
ISOPAST-RUBBER should be thoroughly stirred before application. It is used as it is or diluted with water up to 30% by volume. ISOPAST-RUBBER is applied by brush or by spraying in 2 layers. The second layer is applied after the first one is completely dry.
In case of reinforcement of the sealing layer with fiber mesh tape or polyester tape, is recommended to apply 3 layers of ISOPAST-RUBBER and embed the reinforcement on the first layer while is still fresh.

Consumption

- Vertical surfaces: 0,35-0,50 kg/m^2/layer.
- Horizontal surfaces, without reinforcement: 0,35-0,50 kg/m^2/layer.
- Horizontal surfaces, with reinforcement: 1,5-2,0 kg/m^2.

Packaging

ISOPAST-RUBBER is available in tin buckets of 19 kg.

Shelf-life - Storage

Shelf-life in sealed containers is 12 months in frost free conditions.

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TÜV CERT EN ISO 9001

ISOLAC-BT

Bituminous varnish

Description

Bituminous waterproofing varnish with solvents. It provides excellent adhesion on all surfaces.

Fields of application

It is used as a primer for the application of bituminous membranes, as a vapor barrier in insulations as well as for protecting concrete or metal surfaces from moisture (protection against oxidation).

Technical data

Color:	black
Specific weight:	0,97 kg/lit
Distilled residue:	55-60 %

Cleaning of tools:
Tools must be cleaned thoroughly immediately after use using petrol or a solvent.

Directions for use

The surface to be sealed/protected must be completely clean and dry.
Before use, mix content well.
ISOLAC-BT bituminous varnish may be applied in 1-3 layers using a roll or brush.

Consumption

- On metal surfaces: 100-150 g/m^2/layer.
- On concrete surfaces: 250-300 g/m^2/layer.

Packaging

5 kg and 17 kg tin buckets.

Shelf-life - Storage

12 months from the date of production in sealed containers, in cool, dry and frost-free conditions. Keep away from flame sources.

Volatile organic compounds (VOCs)

According to the Directive 2004/42/CE (Annex II, table A), the maximum allowed VOC content for the product subcategory h, type SB is 750g/l (2010) for the ready to use product.
The ready to use product ISOLAC-BT contains max <750 g/l VOC.

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TÜV CERT EN ISO 9001

ISOMAC

Bituminous mastic

Description

Bituminous sealing mastic with excellent adhesion ability and great elasticity even at very low temperatures.

Fields of application

It is used for sealing joints on horizontal and vertical surfaces, for sealing/bridging hairline cracks, difficult points during application of bituminous membranes (gutters, joints, parapet finishings etc). Also used for repairing bituminous layers.

Technical data

Form:	viscous, gluey
Color:	black
Specific weight:	1,40 kg/lit
Distilled residue:	80-85%

Cleaning of tools:
Tools must be cleaned thoroughly immediately after use with petrol or a solvent.

Directions for use

ISOMAC is cold-applied with a trowel as it is. For lengthy horizontal joints it may be diluted with petrol and applied by injecting directly from the container.
Mastic starts to settle after 24 hours. Loss of mass, occurring as a result of solvent evaporation, is supplemented by the same material the day after the initial application.

Consumption

1,2-1,3 kg/lit.

Packaging

5 kg and 20 kg tin buckets.

Shelf-life - Storage

12 months from the date of production in sealed containers, in cool, dry and frost-free conditions.

Volatile organic compounds (VOCs)

According to the Directive 2004/42/CE (Annex II, table A), the maximum allowed VOC content for the product subcategory g, type SB is 350g/l (2010) for the ready to use product.
The ready to use product ISOMAC contains max <350 g/l VOC.

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TÜV CERT EN ISO 9001

FLEXCOAT

High quality, elastic, waterproofing paint

Description

High quality, elastic, waterproofing paint, based on acrylic resins. FLEXCOAT offers total water impermeability for the protection of walls against rain. It has high elasticity and crack bridging ability on surfaces that show hairline cracks. The paint is vapor permeable, allowing the building to breathe. It features total surface coverage, excellent bonding and superb resistance to weather conditions and washing. It is certified as a cool paint.

Fields of application

It is suitable for outdoor and indoor applications, on old and new surfaces, such as exposed concrete, plaster, brickwork, asbestos cement, gypsum boards etc. It may also be applied over bituminous layers, bituminous membranes and polyurethane layers for their protection against sunlight. Indoors, it is recommended in areas where frequent cleaning and high resistance are required, like kitchens, bathrooms, garages, hospitals, industrial areas etc.

Technical data

Colors:	white and 1420 selected (ISOMAT COLOR SYSTEM)
Type:	100% acrylic paint
Viscosity (Poise):	14-17
Density:	1,34 kg/l
pH:	8-9 at +20^{o}C
Opacity:	min 90%
Whiteness:	min 85%
Capillary water absorption:	0,03 kg/m^{2}h^{0,5}
Bond strength:	2,00 N/mm^{2}
Resistance to washing:	>20.000 cycles
Solar reflectance:	89%
Infrared emittance coef:	0,86
Drying time:	1 h (in touch)
Recoating:	3-4 h

Cleaning of tools:
Remove as much paint as possible from the used tools before cleaning. Clean the tools thoroughly with water and detergent immediately after use.

Directions for use

1. Substrate
The substrate should be clean, dry and free of grease, dust and loose materials.
- Cracks or joints should be filled with ISOMASTIC-A sealant.
- Imperfections on concrete should be repaired with polymer-modified mortar DUROCRET and on exposed concrete with polymer-modified putty PLANFIX or PLANFIX-FINE.
- Plaster repairs are done with UNICRET or UNICRET-FAST ready made mortars.

Priming with acrylic FLEX-PRIMER should follow, with consumption 100-200 g/m^{2}, depending on the substrate's absorptivity. FLEX-PRIMER is especially recommended for loose or crumbling plasters.

2. Application
FLEXCOAT is used as it is or thinned with up to 5% of water. It should be thoroughly stirred before application. It is applied by roller, brush or airless spray in two layers. The second coat follows after drying of the first. In cases of severe, isolated cracks, FLEXCOAT may be reinforced along the crack with a polyester fabric tape (30 g/m^{2}), 10 cm wide.
In cases of multiple cracks, FLEXCOAT may be totally reinforced with the same polyester fabric, 100 cm wide.

Coverage

FLEXCOAT covers 8-12 m^{2}/l, on previously prepared surfaces.

FLEXCOAT

Packaging

FLEXCOAT is supplied in plastic buckets of 3 lit and 10 lit.

Shelf-life - Storage

12 months from production date if stored in original, unopened packaging, in temperature between +5°C and +35°C. Protect from direct sun exposure and frost.

Volatile organic compounds (VOCs)

According to the Directive 2004/42/CE (Annex II, table A), the maximum allowed VOC content for the product subcategory c, type WB is 40g/l (2010) for the ready to use product.
The ready to use product FLEXCOAT contains max <40 g/l VOC.

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TÜV CERT EN ISO 9001

FLEX-PRIMER

High quality acrylic water-based primer

Description

Highly penetrative, polymer emulsion. It stabilizes porous substrates and ensures the proper adhesion of water-based paints, tile-adhesives, flexible mortars, brushable elastomeric coatings, acrylic plasters etc.
By penetrating inside the pores of the substrate, it acts as a bonding layer between the substrate and the paint, adhesive, mortar, coating etc., to be applied.

Fields of application

Used in combination with the highly elastic waterproofing paint FLEXCOAT, it forms an ideal system for the waterproofing of walls.
FLEX-PRIMER is a ready-to-use primer suitable for ensuring the adhesion of water-based paints and acrylic plasters on porous substrates made of concrete, masonry, plaster, gypsum boards, chip boards etc.
It stabilizes weak or crumbling plasters etc.
It is also used for stabilizing and reducing the water absorption of surfaces like gypsum boards or chip boards, on which tile-adhesives, AQUAMAT-ELASTIC (2-component, elastic sealing slurry) or Isomat® SL 17 (brushable, elastomeric liquid membrane for waterproofing under tiles), are going to be subsequently applied.
It is suitable for indoor and outdoor applications.

Technical data

Form:	emulsion
Color:	white
Density:	1,00 kg/lit

Directions for use

1. Substrate
The surface to be primed must be dry and free of dust, grease, dirt etc.

2. Application
FLEX-PRIMER is thoroughly stirred and uniformly applied on the substrate by brush, roller or spraying, before painting.

Consumption

100-200 g/m^2, depending on the absorptivity of the substrate.

Packaging

FLEX-PRIMER is available in plastic containers of 1 kg, 5 kg, 10 kg and 20 kg.

Shelf-life - Storage

12 months from production date if stored in original, unopened packaging, in temperature between +5^{o}C and +35^{o}C. Protect from direct sun exposure and frost.

Remarks

- Temperature during application should be at least +5^{o}C.

Volatile organic compounds (VOCs)

According to the Directive 2004/42/CE (Annex II, table A), the maximum allowed VOC content for the product subcategory h, type WB is 30g/l (2010) for the ready to use product.
The ready to use product FLEX-PRIMER contains max <30 g/l VOC.

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TÜV CERT EN ISO 9001

NANO-SEAL

Waterproofing and stabilization of surfaces

Description

Polymer emulsion, highly penetrative.The nano-molecular structure of the dispersion gives an excellent penetration to the final product. Applied on porous surfaces, protects them from moisture and salt stains, while prevents from fungi-mould growth. NANO-SEAL is also used as a surface hardener on weak or dusty substrates. After has been dried, it is transparent and can be painted.

Fields of application

NANO-SEAL is used to protect porous substrates from moisture and salt strains, such as concrete, masonry, plaster, gypsum boards, chip boards, natural stone etc. NANO-SEAL has also the ability to harden weak substrates, such as plasters etc. Suitable for indoor and outdoor application.

Technical data

Form:	emulsion
Color:	light blue
Density:	1,00 kg/lit
pH:	8,5

Cleaning of tools:
Tools are cleaned with water immediately after use.

Directions for use

1. Substrate
The surface to be primed must be dry and free of dust, grease, dirt etc.

2. Application
NANO-SEAL is thoroughly stirred and uniformly applied on the substrate by brush, roller or spraying, until full impregnation. On very porous surfaces, a second layer might be required. The second layer is applied once the first layer has been dried.

Consumption

100-200 g/m^2, depending on the absorptivity of the substrate.

Packaging

NANO-SEAL is available in plastic containers of 1 kg and 5 kg.

Shelf-life - Storage

Shelf-life in sealed containers is 12 months, in frost-free conditions.

Remarks

- Temperature during application must be between +5^{0}C to +30^{0}C.
- The product should be completely dry before covering.
- NANO-SEAL after has been dried is almost transparent. Therefore, when the surface is not going to be covered, NANO-SEAL should always be applied under trial because it can change the aspect of the surface.

Volatile organic compounds (VOCs)

According to the Directive 2004/42/CE (Annex II, table A), the maximum allowed VOC content for the product subcategory h, type WB is 30g/l (2010) for the ready to use product.
The ready to use product NANO-SEAL contains max <30 g/l VOC.

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TÜV CERT EN ISO 9001

PS-20

Silicone-based solution for waterproofing

Description

PS-20 is a transparent, ready-to-use, silicone-based solution with solvents, for the waterproofing of inorganic substrates.

- Offers excellent water-repellence and long time protection.
- It is water-vapor permeable, permitting breathing of the structure.
- Does not form a skin on the application surface and does not alter its appearance.
- Protects the surface from salt stains (rashes) and effects of frost or filth because it prevents absorption of rain water or dirt.
- Suitable for very alkaline substrates.
- Quickly efficient after application.

Fields of application

PS-20 is applied on various surfaces (natural or synthetic stone, unpainted plaster, exposed masonry, decorative bricks, roof tiles, tiles, exposed concrete etc.) for their protection against rain effect. Also it is suitable for waterproofing of tile joints.

Technical data

Color:	transparent
Density:	0,79 kg/lit

Directions for use

1. Substrate
Surfaces where PS-20 is going to be applied should clean, dry and have open pores. Adjacent surfaces like windows, painted elements, solvent-sensitive materials like polystyrene, sealants or mastics, bitumen, should be protected during application.

2. Application
PS-20 is applied by brush, roller or spray. One or two layers are usually sufficient. The second layer is applied once the first layer has completely dried. Waterproofing is more effective on surfaces with inclination and without standing water.

Consumption

0,2-0,4 lit/m^2, depending on the absorptivity of the substrate.

Packaging

PS-20 is supplied in metal containers of 1 lit, 3 lit and 20 lit.

Shelf-life - Storage

18 months from production date if stored in original, unopened packaging, in temperature between +5°C and +35°C. Protect from direct sun exposure and frost.

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TÜV CERT EN ISO 9001

PS-21

Silicone-based solution without solvents for waterproofing

Description

PS-21 is a ready-to-use, silicone-based solution without solvents, for the waterproofing of inorganic substrates.

- It provides excellent water-repellence.
- It is vapor permeable, permitting breathing of the structure.
- Does not form a skin on the application surface and does not alter its appearance.
- Protects the surface from salt stains, effects of frost or filth, because it prevents absorption of rain water or dirt.
- It is suitable for very alkaline substrates.
- It is quickly effective after application.
- Protects from carbonation
- It is suitable for slightly wet substrates.

Fields of application

PS-21 is used for the protection of horizontal or vertical surfaces against rain effect and for the waterproofing of tile joints. It is also suitable for the waterproofing of natural stone, plaster, exposed bricks, roof tiles, exposed concrete etc. It can also be applied on unpolished marble surfaces to protect them from water and dirt absorption. It can be used even on slightly wet substrates.

Technical data

Color:	transparent when dry
Density:	0,99 kg/lit

Directions for use

1. Substrate
Surfaces where PS-21 is going to be applied should have open pores and be clean.

2. Application

a) Horizontal surfaces
In case of horizontal absorptive surfaces (absorbent tiles, mosaic, etc.) the application can be done with a squeegee. The material is left to act for 5 minutes, next the excessive material is removed using a squeegee and the surface is cleaned with a slightly wet cloth. The final cleaning of the surface can be done after 6 hours. Waterproofing is more effective on surfaces with inclination and without standing water.

b) Vertical surfaces
In vertical surfaces PS-21 is applied by spray, brush or roller. One or two layers are usually sufficient. The second layer follows while the first is still fresh. Better impregnation is succeeded in dry or slightly wet absorbent substrates.

c) Waterproofing of tile joints
The application of PS-21 for waterproofing tile joints can be done by brush or squeegee.

d) Impregnation
PS-21 can be used also for the impregnation of building materials, like tiles, bricks etc., diluted with water in proportions of 1:1 to 1:4.

Consumption

0,2-0,4 lit/m^2, depending on the absorptivity of the substrate.

Packaging

PS-21 is supplied in plastic containers of 1 lit, 5 lit and 20 lit.

Shelf-life - Storage

12 months from production date if stored in original, unopened packaging, in temperature between +5°C and +35°C. Protect from direct sun exposure and frost.

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TÜV CERT EN ISO 9001

NANOPRO-C

Nano-impregnation for protecting porous surfaces

Description

Water-based emulsion with high penetrating ability, based on nano-molecular structure. Protects porous surfaces, from moisture and salt stains, while prevents from fungi-mould growth. After it has dried, it is transparent. It does not become yellow due to UV radiation and permits breathing of the structure. It does not form a skin on the application surface and does not alter its appearance.

Fields of application

NANOPRO- C is used to protect from moisture and salt stains porous substrates such as surfaces of concrete, masonry, plaster, tile grouts, gypsum boards, chip boards, natural stone etc. Suitable for indoor and outdoor application.

Technical data

Form:	emulsion
Color:	white
Density:	0,99 kg/lit
pH:	7,5

Cleaning of tools:
Tools are cleaned with water immediately after use.

Directions for use

1. Substrate
The surface to be primed must be dry and free of dust, grease, dirt etc.

2. Application
NANOPRO-C is thoroughly stirred and uniformly applied on the substrate by brush, roller or spraying, until full impregnation. On very porous substrates a second layer might be required, which is applied within 3 hours after the first one.
Total resistance in absorbing moisture is achieved 2 days after the application.

Consumption

100-200 ml/m^2, depending on the absorptivity of the substrate.

Packaging

NANOPRO-C is available in plastic containers of 1l, 5 l and 20 l and in drums of 220 l.

Shelf-life - Storage

12 months from production date if stored in original, unopened packaging, in temperature between +5^{o}C and +35^{o}C. Protect from direct sun exposure and frost.

Remarks

Temperature during application must be between +5^{o}C to +30^{o}C.

Volatile organic compounds (VOCs)

According to the Directive 2004/42/CE (Annex II, table A), the maximum allowed VOC content for the product subcategory g, type WB is 30g/l (2010) for the ready to use product. The ready to use product NANOPRO-C contains max <30 g/l VOC.

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TÜV CERT EN ISO 9001

NANOPRO-M

Nano-impregnation for protecting marbles

Description

Water-based emulsion with highly penetrating ability based on nano-molecular structure. When applied on unporous surfaces, it seals and protects them from moisture and stains. After it has dried, it is transparent. It does not become yellow due to UV radiation and permits breathing of the structure. It does not form a skin on the application surface and does not alter its appearance.

Fields of application

NANOPRO-M is used to protect from stains unporous substrates such as surfaces of polished marbles, granites, tiles, porcelain etc. Suitable for indoor and outdoor application.

Technical data

Form:	emulsion
Color:	white
Density:	0,99 kg/lit
pH:	7,5

Cleaning of tools:
Tools are cleaned with water immediately after use.

Directions for use

1. Substrate
The surface to be primed must be dry and free of dust, grease, dirt etc.

2. Application
NANO-PRO-M is thoroughly stirred and uniformly applied on the substrate by brush, roller or spraying, 10-15 minutes after the application and before get dried, the excessive material is removed using a wet cloth.
For surfaces which are very sensitive to stains, a second layer can be applied within 3 hours after the first one.
Total resistance in absorbing moisture is achieved 7 days after the application.

Consumption

50-70 ml/m^2, depending on the absorptivity of the substrate.

Packaging

NANOPRO-M is available in plastic containers of 1l, 5l and 20l.

Shelf-life - Storage

12 months from production date if stored in original, unopened packaging, in temperature between +5^{o}C and +35^{o}C. Protect from direct sun exposure and frost.

Remarks

Temperature during application must be between +5^{o}C to +30^{o}C.

Volatile organic compounds (VOCs)

According to the Directive 2004/42/CE (Annex II, table A), the maximum allowed VOC content for the product subcategory g, type WB is 30g/l (2010) for the ready to use product. The ready to use product NANOPRO-M contains max <30 g/l VOC.

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TÜV CERT EN ISO 9001

NANOPRO-L

Nano-impregnation for protecting surfaces from oils

Description

Water-based emulsion with high penetrating ability, based on nano-molecular structure. Protects porous and slightly porous surfaces (marbles, granites etc.), from oil stains, moisture and salt stains while prevents from fungi-mould growth.
If used at the recommended dosage, it does not form skin on the application surface and does not alter the appearance of most surfaces.

Fields of application

NANOPRO-L is used to protect from oil stains, moisture and salt stains either non absorptive surfaces such as polished marbles, granites etc. or porous surfaces, such as concrete, masonry, plaster, tile grouts, gypsum boards, chip boards, natural stones etc.
Suitable for indoor and outdoor application.

Technical data

Form:	emulsion
Color:	white (slightly yellow)
Density:	0,99 kg/lit
pH:	7,25

Cleaning of tools:
Tools are cleaned with water immediately after use.

Directions for use

1. Substrate
The substrate must be dry and free of dust, grease, dirt etc.

2. Application
NANOPRO-L is thoroughly stirred and uniformly applied on the substrate by brush, roller or spraying. After about 15 minutes and before the material has dried, the surface is cleaned by rubbing with a slightly damp cloth. For very absorptive surfaces a second layer can be applied before the first layer is totally dry.
Total resistance in absorbing oils and moisture is achieved 2 days after the application.

Consumption

50-100 ml/m^2, depending on the absorptivity of the substrate.

Packaging

NANOPRO-L is available in plastic containers of 1l, 5l and 20l.

Shelf-life - Storage

12 months from production date if stored in original, unopened packaging, in temperature between +5^{o}C and +35^{o}C. Protect from direct sun exposure and frost.

Remarks

Temperature during application must be between +5^{o}C to +35^{o}C.

Volatile organic compounds (VOCs)

According to the Directive 2004/42/CE (Annex II, table A), the maximum allowed VOC content for the product subcategory g, type WB is 30g/l (2010) for the ready to use product. The ready to use product NANOPRO-L contains max <30 g/l VOC.

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TÜV CERT EN ISO 9001

ISOMAT SL 17

Elastomeric liquid membrane for waterproofing under tiles

Description

ISOMAT SL 17 is a ready to use, brushable, solvent-free, elastomeric sealing membrane. After hardening provides a highly elastic membrane which is both waterproof and water-vapor permeable.

Fields of application

ISOMAT SL 17 is ideal for sealing surfaces in humid rooms like bathrooms, showers etc, (without forming seams or joints), before fixing ceramic tiles.
It is suitable for all floor or wall surfaces made of concrete, plaster gypsum boards, chip boards etc. Yet, it should not be applied on surfaces subject to permanent water pressure.

Technical data

Color:	grey
Density:	1,58 kg/lit
Viscosity:	50.000 mPa.s at +23^{0}C
Minimum application temperature:	+5^{0}C
Drying Time:	6 h at +20^{0}C
Walkability:	after 6 h at +20^{0}C
Tile fixing:	approx. after 6 h at +20^{0}C

Directions for use

1. Substrate
The substrate must be clean, free of grease, loose particles, dust, etc. Cavities should be repaired using PLANFIX putty. Priming follows, using the special acrylic primer UNI-PRIMER with a consumption of approx. 100-200 g/m^{2}, depending on the absorptivity of the substrate.

2. Application
ISOMAT SL 17 is applied by brush or roller in 2 layers, after the primer has dried. The second layer should be applied after the first one has dried. It can be also applied in one layer with a notched trowel of 3-4 mm notch-size and flattened with a smooth trowel.
This way a uniform thickness of the coating layer is achieved.
The ISOMAT SL 17 sealing membrane should be locally reinforced lengthwise across joints and wall-floor corners by fiberglass-mesh tape (65 g/m^{2}) or polyester cloth tape (30 g/m^{2}).
Tools are cleaned with water while ISOMAT SL 17 is still fresh.
Tiles should be fixed with a high performance polymer-modified tile adhesive like ISOMAT AK 20, ISOMAT AK 22, ISOMAT AK 25, ISOMAT AK-ELASTIC, after ISOMAT SL17 has dried.

Consumption

1,0-1,5 kg/m^{2}, depending on the substrate.

Packaging

ISOMAT SL 17 is supplied in buckets of 5 kg and 15 kg.

Shelf-life - Storage

12 months from production date if stored in original, unopened packaging, in temperature between +5^{o}C and +35^{o}C. Protect from direct sun exposure and frost.

Volatile organic compounds (VOCs)

According to the Directive 2004/42/CE (Annex II, table A), the maximum allowed VOC content for the product subcategory g, type WB is 30g/l (2010) for the ready to use product.
The ready to use product ISOMAT SL 17 contains max <30 g/l VOC.

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TÜV CERT EN ISO 9001

AQUAMAT-F

Damp course against capillary rising damp

Description

AQUAMAT-F is a ready-to-use water-based siliceous solution with hydrophobic siliceous compounds. When injected into walls, the compounds it contains react with the existing lime and form non-soluble compounds (hydrous silicic monocalcium) that block the capillary absorption of water and create hydrophobie.
AQUAMAT-F has no corrosive effects on the steel in reinforced concrete.
AQUAMAT-F is not suitable for application on surfaces of exposed concrete, brick-walls or plaster that are not going to be coated or painted.

Fields of application

AQUAMAT-F is mainly applied against rising moisture. AQUAMAT-F is used to create a horizontal barrier against the rising moisture, at the base of walls.
In case of hydrostatic pressure existence, AQUAMAT use is required.

Technical data

Color:	transparent
pH:	12,7
Density:	1,36 kg/lit

Directions for use

1. Without pressure
AQUAMAT-F is applied with a wall perforation procedure. Holes of 30 mm diameter are drilled lengthwise at the base of the wall, with a distance of 15-20 cm between them. The drilling angle should be dipping between 30^0 and 45^0 and the depth of 5 cm less than the wall's thickness. Holes are usually opened from the outside. Also, they may be opened in two levels (one higher - one lower).
In this case, the distance from hole to hole depends on the absorptivity of the wall.
15-20 cm is recommended in general.
Brushing AQUAMAT on both sides in the treated area will prevent AQUAMAT-F leakages.
After the drilling and cleaning of the holes, AQUAMAT-F (not diluted) is poured into the wall through them using a funnel, repeating the process up to the point of saturation.
The holes are filled and sealed with a cement mortar enhanced with ADIPLAST, at least 24 hours after the application.
Sealing both surfaces of the wall with AQUAMAT sealing slurry in the area of the boreholes prevents AQUAMAT-F from leaking out of the wall.

2. With pressure
This method is suitable for walls greatly or totally soaked with water. The holes should have a diameter of 12-18 mm and should be opened horizontally or at 30^0 dipping slope, in a distance of 10-20 cm between them. In case of walls with low absorptivity, holes should be drilled in two levels. In case of stone walls with very low absorptivity the holes should be opened in the joints but if the stones are absorptive the hole should be opened in them.
AQUAMAT-F is injected under pressure, using the appropriate equipment. The application is considered finished when AQUAMAT-F starts to leak from the wall surface, assuring that the area around the holes have been saturated with the material. 24 hours after the application of AQUAMAT-F, the holes are filled and sealed with cement mortar enhanced with ADIPLAST.

Consumption

Depends on the absorptivity of the wall. Usual consumption is approximately 18 kg per m^2 of wall's cross-section, referring to walls of medium absorptivity.

AQUAMAT-F

Packaging

AQUAMAT-F is available in plastic containers of 6 kg and 25 kg and drums of 170 kg.

Shelf-life - Storage

12 months from production date if stored in original, unopened packaging, in temperature between +5°C and +35°C. Protect from direct sun exposure and frost.

Remarks

- AQUAMAT-F contains siliceous compounds and is classified as corrosive.
- Consult the usage risks and safety advice written on the label.

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TÜV CERT EN ISO 9001

POLYESTER CLOTH

Polyester cloth for reinforcing waterproofing layers

Description

Thin polyester cloth for total reinforcing of waterproofing layers such as ISOFLEX, AQUAMAT-ELASTIC, AQUAMAT-FLEX etc. It can also be used for local reinforcing of waterproofing layers along cracks, joints or wall-floor junctions.
Weight: approx.30g/m^2.

Packaging

- Rolls of 1m x 200m (200 m^2).
- Rolls of 1m x 100m (100 m^2).
- Rolls of 10cm x 50m.

FIBERGLASS MESH FOR WATERPROOFING LAYERS

Fiberglass mesh for reinforcing waterproofing layers

Description

Fiberglass mesh for total reinforcing of waterproofing layers (e.g. ISOFLEX membrane) in tough cases of multiple cracking. It can also be used for local reinforcing of ISOFLEX, ISOFLEX-T25 membrane along cracks or joints.
Weight: approx. 65g/m^2.
Mesh: 1mm x 2mm.

Packaging

- Rolls of 1m x 50m (50 m^2).
- Rolls of 10cm x 50m.

FIBERGLASS TISSUE

Fiberglass tissue for reinforcing waterproofing layers

Description

Fiberglass tissue for total reinforcing of waterproofing layers such as ISOFLEX, ISOFLEX-T25, ISOFLEX-PU etc. It can also be used for local reinforcing of ISOFLEX membrane along cracks or joints.
Weight: approx. 50g/m^2.

Packaging

Rolls of 1m x 500m (500 m^2).

ISOMAT BUTYL TAPE

Self-adhesive butyl tape

Description

ISOMAT BUTYL TAPE is a self-adhesive, non woven sealing tape composed of a butyl adhesive covered with a non woven fleece. The adhesive face is protected by a peelable liner.

Fields of application

ISOMAT BUTYL TAPE is used in wet areas for waterproofing under tiles, especially in places where there are cracks, joints etc. It can be covered with tile adhesives or brushable waterproofing materials.

Technical data

Nature of the fibres:	100 % polyester
Thickness:	0,9 mm
Mass per m²: (D 45 1012)	50 g/m²
Resistance at break:	Longitudinal 90 N/ 5cm Perpendicular 65N/5cm
Hydrophobic:	yes
Temperature of application:	+5°C up to +40°C
Temperature of service:	-30°C up to + 80°C

Directions for use

1. Substrate
The surface must be clean, dry and free of dust, loose particles etc.

2. Application
Remove the protective liner progressively when installing. Roll-press firmly the product when installing to avoid inclusion of air bubbles. When connecting two tapes, use an overlap of at least 5 cm.

Packaging

Rolls 8 cm x 10 m

Shelf-life - Storage

12 months from production date, in original unopened packaging and protected from humidity. Store in a well ventilated room and at a maximum temperature of 30°C.

Remarks

- The non woven support may be painted. However, the softness of the sealant can lead to cracks in the paint as the sealant is more flexible than the paint.
- The coatings, adhesives or paints that cover the non woven must be compatible.
- Butyl sealants are sensitive to solvent.
- Keep out of reach of children.
- Avoid contact with skin.
- Consult the Safety Data Sheet.

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TÜV CERT EN ISO 9001

WATERPROOFING AND UNCOUPLING MEMBRANE

Waterproofing and uncoupling membrane

Description

Waterproofing and uncoupling membrane for outdoor and indoor use. The special lower non-woven material ensures safe isolation of the floor covering.

Fields of application

Suitable for waterproofing and uncoupling of sound and problematic substrates. Especially used in damp areas and on terraces, balconies etc. It can be placed on walls or floors and on a variety of substrates such as concrete, cement mortars, old tile layers, mosaics, masonry etc.

Technical data

Color:	top green- bottom white
Thickness:	0,80 mm
Weight:	450 gr/m^2
Width:	100 cm
Application/ substrate temperature:	+ 5° C - + 30° C
Slotted disk water pressure test 2, 5 bar:	passed

Tested acc. to DIN EN 1928, DIN 4102 part 1, DIN EN ISO 527, DIN 16726, DIN 28052-6
Test certificate of the MPA Brunswick (Germany)

Directions for use

1. Substrate
Substrate must be stable, clean and suitable for tiling.

2. Application
The membrane is adhered on the substrate using the tile adhesives ISOMAT AK-20 or ISOMAT AK-22 applied by a trowel with 3mm or 4mm teeth.
Subsequently press the membrane carefully into the layer of the adhesive with the green side on top using the smooth edge of the trowel.
Place the single membrane end to end and fix the supplied tape homogeneously over the joints.
Apply a thin coat of the tile adhesive on both sides of the joint and carefully press in the entire surface of the sealing tape.
After the adhesive has hardened beneath the membrane the tiles are fixed as usual using ISOMAT AK-20, ISOMAT AK-22 or ISOMAT AK-25 depending the application.

Packaging

Rolls of 1m x 15 m.
Supplied tape of 12cm x 25 m.

Shelf-life - Storage

Stored in original, unopened packaging, in places protected from moisture and frost.

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TÜV CERT EN ISO 9001

TIXOPHALTE

Elastoplastic and adhesive bituminous mastic sealant

Description

TIXOPHALTE is a plasto-elastic, neutral hardening mastic, based on a (thixotropic) high-quality modified bitumen/rubber composition and contains additives, filler and a non flammable solvent.
Adheres and seals under many different conditions. Sticks to wet substrate (even under water). Sticks to most plastics, e.g. polythylene.

Fields of application

- Roof-Terraces: Adhesives for all types of roofing felts; including SBS and APP bitumen modified membranes. Waterproof finishing of overlaps, connections and joints of roof edges, chimneys, light domes and bushings for exhaust pipes. Fixing rain water drain systems onto the roof.
- Constructions: Suitable for sealing vertical and horizontal joints, on various materials like concrete, brick or steel. Also suitable for the adhesion of common building materials.
- Hydraulic applications: For waterproofing cracks and joints in waterways, canals, dams, bridges and reservoirs taking advantage of its unique wet-weather and underwater properties.

Technical data

Form:	plasto elastic, neutral hardening mastic
Color:	black
Specific gravity:	1,38 kg/lit at +20ºC
Curing time:	1-10 days, depending on substrate
Skin forming after flow resistance (14 days, 1.5mm):	30 min
Dripping point:	+ 200ºC

Stable at -35 to +110°C depending on load conditions.

Directions for use

1. Substrate
A clean, dry and dust free substrate is recommended. For special applications and/or on wet substrates an adhesion test is advised.

2. Application
TIXOPHALTE can be applied with a hand gun or a compressed airgun. Using the cartridge, the aluminium seal in the front screw spout has to be cut slantwise so that it has the size of the desired band of TIXOPHALTE. A clean spout is important for a uniform dose and a smooth finish. In order to obtain adequate adhesion on a wet substrate, it is important that the distance between substrate and spout is as small as possible and not more than 3 mm, so that the initial adhesion is obtained by displacing the water. When compressed-air guns are used (for the sausage-packing) the piston and the cylinder have to be greased properly. TIXOPHALTE must be applied in strips or spot wise, so that the solvent is able to evaporate easily. Ensure that there is adequate ventilation during use. The open time and hardening rate are influenced by factors such as temperature, type of substrate, absorbency behavior of the materials and the applied layer thickness of TIXOPHALTE. Immediately after applying TIXOPHALTE, the adhesion is sufficient to resist a low load. Maximum strength is obtained after curing by evaporation of the solvent. The final adhesive strength is strongly dependant on the type and nature of the bond. TIXOPHALTE can be removed with tools, such as a palette knife. Any residue can be cleaned by dissolving in a solvent (e.g special solvent SM-12)

TIXOPHALTE

Consumption

Approximately 1,4 kg/lit of joint volume.

Packaging

- Cartridges of 310 ml.
- Sausages of 1,4 lit.

Shelf-life - Storage

Storage life is 36 months in unopened packing, 12 months in opened.
TIXOPHALTE should not be stored in direct sunlight or near a source of heat.

Remarks

- Contact with mineral oil (gasoline, kerosine, gas oil) softens the product.
- TIXOPHALTE does not tolerate solvent based paint.
- Ambient temperature during application is recommended to be between +5°C and +40°C.

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TÜV CERT EN ISO 9001

ELASTOTAN

Elastomeric adhesive sealant

Description

ELASTOTAN is an one component, elastomeric adhesive sealant, providing:

- Resistance to temperature fluctuations from -50°C to +150°C.
- Excellent bonding to any kind of building material.
- High elasticity.
- Great endurance to ageing and weather.

Fields of application

ELASTOTAN is suitable for sealing vertical and horizontal joints 3-50 mm wide on various material surfaces such as glass, aluminium, wood, etc. in indoor or outdoor areas.
It is not recommended for use in aquariums or swimming pools.

Technical data

Colors:	white, grey
Application temperature:	from +5°C to +40°C
Skin formation:	after 15-30 min
Maturation speed:	2-3 mm/day
Joint movement capability:	25%
Elastic recovery:	approx. 95%
Hardness according to SHORE A:	approx. 20

Directions for use

1. Substrate
Substrate must be free of dust, loose particles, grease etc. It is recommended that the joint is cleaned up by using a paintbrush or a wire brush and then air-blasted.
To avoid undesirable soiling at joint edges, a self-adhesive paper-tape is applied alongside the edges and then removed immediately after sealing the joint (before skin formation).

2. Application
Insert cartridge in the special gun and cut nozzle in a slant way so that as it does not fit into the joint but just touches and slides along the edges.
ELASTOTAN is applied by driving the cartridge alongside the joint axis at a 45° angle. While still fresh, the mastic is leveled using a trowel.

Cleaning of tools:
Tools must be cleaned thoroughly with common solvents while material is still fresh. If material is hardened, tools may be mechanically cleaned.

Consumption

- Joint 10mm x 10mm:
  1 cartridge / 2,8 m of joint length.
- Joint 5mm x 5mm:
  1 cartridge / 11,2 m of joint length.

Packaging

- Cartridges of 280 ml.
- Sausages of 600 ml.

Shelf-life - Storage

Shelf-life is 12 months, in dry and frost-free conditions.

Remarks

ELASTOTAN should not be applied on materials that eject oils.

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TÜV CERT EN ISO 9001

DOMOSIL

General purpose silicone sealant

Description

DOMOSIL is a general purpose silicone for highly demanding jobs, providing:

- Resistance to temperature fluctuations from -40°C to +160°C.
- Excellent bonding to any kind of non- porous building material.
- Great endurance to ageing.

Fields of application

DOMOSIL is suitable for sealing vertical and horizontal joints 3-40 mm wide on non-porous material surfaces such as glass, aluminium, porcelain (tiles etc) and non-porous ceramics, in indoor or outdoor areas.

Technical data

Base:	silicone
Color:	transparent, white
Skin formation:	after 20-30 min
Maturation speed:	1,5-2,0 mm/day
Hardness according to SHORE A:	19 ± 2

Directions for use

1. Substrate
Substrate must be free of dust, loose particles, grease etc. It is advisable that the joint is cleaned up using a paintbrush or a wire brush and then air-blasted.
To avoid undesirable soiling at joint edges, a self-adhesive paper-tape is applied alongside the edges and then removed immediately after sealing the joint (before skin formation).

2. Application
Insert cartridge in the special gun and cut nozzle in a slant way so that as it does not fit into the joint but just touches and slides along the edges.
Silicon is applied by driving the cartridge alongside the joint axis at a 45° angle.
While still fresh, silicone is leveled using a trowel or by finger.

Cleaning of tools:
Tools must be cleaned thoroughly with water whilst material is still fresh. If material is hardened, tools may be mechanically cleaned.

Consumption

- Joint 10mm x 10mm:
  1 cartridge / 3 m of joint length.
- Joint 5mm x 5mm:
  1 cartridge / 12 m of joint length.

Packaging

Cartridges of 280 ml.

Shelf-life - Storage

Shelf-life is at least 12 months, in dry and frost-free conditions.

Remarks

- Ambient temperature during application must be between -10°C and +60°C.

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TÜV CERT EN ISO 9001

DOMOSIL-S

Mildew-resistant silicone sealant

Description

DOMOSIL-S is a mildew-resistant silicone for highly demanding jobs, providing:

- High mechanical resistance.
- Resistance to temperature fluctuations from -60°C to +220°C.
- Excellent bonding to any kind of non porous building material.
- Great endurance to ageing.
- Prevention of mildew and fungi growth.

Fields of application

DOMOSIL-S is suitable for sealing vertical and horizontal joints 3-40 mm wide on non-porous material surfaces such as glass, aluminium, porcelain (tiles etc) and non-porous ceramics, in indoor or outdoor areas.
It is applied in high humidity areas (kitchens, bathrooms etc) as well as hospitals, biology and microbiology labs etc.
It prevents the growth of mildew or fungi, which cause black spots and stains in such areas.
It is not recommended for use in aquariums because of the fungicide it contains.

Technical data

Base:	silicone
Color:	transparent, white
Skin formation:	after 10-15 min
Maturation speed:	2,0-2,5 mm/day
Hardness according to SHORE A:	19 ± 2

Directions for use

1. Substrate
Substrate must be free of dust, loose particles, grease etc. It is advisable that the joint is cleaned up using a paintbrush or a wire brush and then air-blasted.

To avoid undesirable soiling at joint edges, a self-adhesive paper-tape is applied alongside the edges and then removed immediately after sealing the joint (before skin formation).

2. Application
Insert cartridge in the special gun and cut nozzle in a slant way so that as it does not fit into the joint but just touches and slides along the edges.
Silicone is applied by driving the cartridge alongside the joint axis at a 45° angle.
While still fresh, silicone is leveled using a trowel or by finger.

Cleaning of tools:
Tools must be cleaned thoroughly with water whilst material is still fresh. If material is hardened, tools may be mechanically cleaned.

Consumption

- Joint 10mm x 10mm:
  1 cartridge / 3 m of joint length.
- Joint 5mm x 5mm:
  1 cartridge / 12 m of joint length.

Packaging

Cartridges of 280 ml.

Shelf-life - Storage

Shelf-life is at least 12 months, in dry and frost-free conditions.

Remarks

- Ambient temperature during application must be between -10°C and +60°C.

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TÜV CERT EN ISO 9001

DOMOSIL-MICRO

High performance anti-mould silicone sealant

Description

DOMOSIL-MICRO is a high performance, anti-mould, acetic silicone with built in Microban technology, providing:

- Prevention of mildew and fungi growth.
- Resistance to temperature fluctuations from -40°C to +120°C.
- Excellent bonding to any kind of building material.
- Great endurance to ageing and water.
- High mechanical resistance.

Fields of application

DOMOSIL-MICRO is suitable for sealing joints 3-40mm wide on materials such as glass, aluminium, non-porous ceramics, porcelain (tiles, sanitary products etc). It is applied in high humidity areas (kitchens, bathrooms etc).
With normal cleaning practises DOMOSIL-MICRO remains stable even after 10 years.
It is not recommended for use in aquariums because of the fungicide it contains and cannot be overpainted.

Technical data

Base:	silicone
Color:	transparent, white
Skin formation:	after 20-25 min
Maturation speed:	1,0-2,0 mm/day
Hardness according to SHORE A:	18 ± 2

Admissible joint movement :	25%
Elongation at break (%) DIN 53504	550%

Directions for use

1. Substrate
Substrate must be free of dust, loose particles, grease etc. It is advisable that the joint is cleaned up using a paintbrush or a wire brush and then air-blasted.

To avoid undesirable soiling at joint edges, a self-adhesive paper-tape is applied alongside the edges and then removed immediately after sealing the joint (before skin formation).

2. Application
Insert cartridge in the special gun and cut nozzle in a slant way so that as it does not fit into the joint but just touches and slides along the edges.
Silicon is applied by driving the cartridge alongside the joint axis at a 45° angle.
While still fresh, silicone is leveled using a trowel or by finger.

Cleaning of tools:
Tools must be cleaned thoroughly with water whilst material is still fresh. If material is hardened, tools may be mechanically cleaned.

Consumption

- Joint 10mm x 10mm:
  1 cartridge / 3 m of joint length.
- Joint 5mm x 5mm:
  1 cartridge / 12 m of joint length.

Packaging

Cartridge of 280 ml.

Shelf-life - Storage

Shelf-life is at least 12 months, in dry and frost-free conditions.

Remarks

- Ambient temperature during application must be between -10°C and +40°C.
- Maturation speed of DOMOSIL-MICRO is depended on the environmental conditions.
- Microban® is a registered trademark of Microban Products Company.

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DOMOSIL-POOL

Silicone sealant for permanent water immersion

Description

DOMOSIL-POOL is an acetic silicone for permanent water immersion (swimming pools, aquariums etc), providing:

- High mechanical resistance and deformability.
- Resistance to temperature fluctuations from -50°C to +200°C.
- Excellent bonding to any kind of building material.
- Great endurance to ageing and water.

Fields of application

DOMOSIL-POOL is appropriate for sealing vertical and horizontal joints 3-40mm wide, for indoor and outdoor applications. It has very good adhesion on surfaces such as glass, porcelain (tiles, sanitary products), aluminium etc. Suitable for sealing joints on aquariums, boats, glass-structures etc. It cannot be overpainted.

Technical data

Base:	silicone
Application temperature:	from +5 ºC to +40 ºC
Color:	transparent
Skin formation:	after 7 min (23ºC, 50% R.H)
Maturation speed:	4,5 mm/1st- day 10 mm/ 7 days
Hardness according to SHORE A:	23
Admissible joint movement :	25%
Elongation at break (%) DIN 53504:	550%

Directions for use

1. Substrate
Substrate must be free of dust, loose particles, grease etc. It is advisable that the joint is cleaned up using a paintbrush or a wire brush and then air-blasted.
To avoid undesirable soiling at joint edges, a self-adhesive paper-tape is applied alongside the edges and then removed immediately after sealing the joint (before skin formation).

2. Application
Insert cartridge in the special gun and cut nozzle in a slant way so that as it does not fit into the joint but just touches and slides along the edges.
Silicon is applied by driving the cartridge alongside the joint axis at a 45° angle.
While still fresh, silicone is leveled using a trowel or by finger.

Cleaning of tools:
Tools must be cleaned thoroughly with water whilst material is still fresh. If material is hardened, tools may be mechanically cleaned.

Consumption

- Joint 10mm x 10mm:
  1 cartridge / 3 m of joint length.
- Joint 5mm x 5mm:
  1 cartridge / 12 m of joint length.

Packaging

Cartridges of 280 ml.

Shelf-life - Storage

Shelf-life is 12 months, in dry and frost-free conditions.

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TÜV CERT EN ISO 9001

FLEX PU-20

Solvent free polyurethane construction joint sealant

Description

FLEX PU-20 is an one component, solvent-free polyurethane sealing mastic, providing:

- Resistance to temperature fluctuations from -40°C to +80°C.
- Excellent bonding to any kind of building material.
- High elasticity.
- Great endurance to ageing and weather.
- Painting ability after hardening.

Fields of application

FLEX PU-20 is suitable for sealing vertical and horizontal joints, indoor or outdoor, on various materials like concrete aluminium, steel, wood, glass, natural and synthetic stones etc.

Technical data

Base:	polyurethane
Color:	grey
Application temperature:	from +5°C to +35°C
Skin formation:	after 100-120 min
Maturation speed:	3 mm/day
Admissible joint movement:	25%
Elastic recovery:	approx. 90%
Hardness according to SHORE A:	15-20

Directions for use

1. Substrate
Substrate must be free of dust, loose particles, grease etc. It is recommended that the joint is cleaned up by using a paintbrush or a wire brush and then air-blasted.

To avoid undesirable soiling at joint edges, a self-adhesive paper-tape is applied alongside the edges and then removed immediately after sealing the joint (before skin formation).

2. Application
Insert cartridge in the special gun and cut nozzle in a slant way so that as it does not fit into the joint but just touches and slides along the edges.
FLEX PU-20 is applied by driving the cartridge alongside the joint axis at a 45° angle.
While still fresh, the mastic is leveled using a trowel.

Cleaning of tools:
Tools must be cleaned thoroughly with common solvents while material is still fresh. If material is hardened, tools may be mechanically cleaned.

Consumption

- Joint 10mm x 10mm:
  1 cartridge / 3 m of joint length.
- Joint 5mm x 5mm:
  1 cartridge / 12 m of joint length.

Packaging

- Cartridges of 310 ml.
- Sausages of 600 ml.

Shelf-life - Storage

Shelf-life is 12 months, in dry and frost-free conditions.

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FLEX PU-40

Solvent free polyurethane adhesive and sealant

Description

FLEX PU-40 is an one component, solvent-free polyurethane sealing mastic, providing:

- Resistance to temperature fluctuations from -40°C to +80°C.
- Excellent bonding to any kind of building material.
- High elasticity.
- Great endurance to ageing and weather.
- Painting ability after hardening.

Fields of application

FLEX PU-40 is suitable for sealing vertical and horizontal joints, indoor or outdoor, on various materials like concrete aluminium, steel, wood, glass, natural and synthetic stones etc. Also suitable for bonding these materials.

Technical data

Base:	polyurethane
Colors:	white, grey, brown
Application temperature:	from +5°C to +35°C
Skin formation:	after 70 min
Maturation speed:	4 mm/day
Elastic recovery:	approx. 80%
Hardness according to SHORE A:	35-40

Directions for use

1. Substrate
Substrate must be free of dust, loose particles, grease etc. It is recommended that the joint is cleaned up by using a paintbrush or a wire brush and then air-blasted.

To avoid undesirable soiling at joint edges, a self-adhesive paper-tape is applied alongside the edges and then removed immediately after sealing the joint (before skin formation).

2. Application
Insert cartridge in the special gun and cut nozzle in a slant way so that as it does not fit into the joint but just touches and slides along the edges.
FLEX PU-40 is applied by driving the cartridge alongside the joint axis at a 45° angle.
While still fresh, the mastic is leveled using a trowel.

Cleaning of tools:
Tools must be cleaned thoroughly with common solvents while material is still fresh. If material is hardened, tools may be mechanically cleaned.

Consumption

- Joint 10mm x 10mm:
  1 cartridge / 3 m of joint length.
- Joint 5mm x 5mm:
  1 cartridge / 12 m of joint length.

Packaging

- Cartridges of 310 ml.
- Sausages of 600 ml.

Shelf-life - Storage

Shelf-life is 12 months, in dry and frost-free conditions.

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TÜV CERT EN ISO 9001

FLEX PU-30 S

Polyurethane construction joint sealant, with solvents

Description

FLEX PU-30 S is an one component, polyurethane sealing mastic, with solvents, providing:

- Resistance to temperature fluctuations from -20°C to +90°C.
- Excellent bonding to any kind of building material.
- High elasticity.
- Great endurance to ageing (U.V radiation and weather).
- Painting ability after hardening only with water soluble paints.

Fields of application

FLEX PU-30 S is suitable for sealing vertical and horizontal joints 5-50mm thick, indoor or outdoor, on various materials like concrete, aluminium, steel, wood, glass, natural and synthetic stones etc.

Technical data

Base:	polyurethane
Color:	grey, white
Application temperature:	from +5°C to +40°C
Skin formation:	after 120-140 min
Maturation speed:	2-3 mm/day
Admissible joint movement:	± 25%
Elastic recovery:	approx. 90%
Hardness according to SHORE A:	30 ± 3
Tensile strength (ISO 8339):	0.82 N/mm^2
Modulus at 100% elongation (ISO 8339):	0.41 N/mm^2
Elongation at break: (ISO 8339)	450%

Directions for use

1. Substrate
Substrate must be dry and free of dust, loose particles, grease etc. It is recommended that the joint is cleaned up by using a paintbrush or a wire brush and then air-blasted.
To avoid undesirable soiling at joint edges, a self-adhesive paper-tape is applied alongside the edges and then removed immediately after sealing the joint (before skin formation).

2. Application
Insert cartridge in the special gun and cut nozzle in a slant way so that as it does not fit into the joint but just touches and slides along the edges. FLEX PU-30 S is applied by driving the cartridge alongside the joint axis at a 45° angle. While still fresh, the mastic is leveled using a trowel.
Cleaning of tools:
Tools must be cleaned thoroughly with common solvents while material is still fresh. If material is hardened, tools may be mechanically cleaned.

Consumption

- Joint 10mm x 10mm:
  1 cartridge / 3 m of joint length.
- Joint 5mm x 5mm:
  1 cartridge / 12 m of joint length.

Packaging

- Cartridges of 300 ml.
- Sausages of 600 ml.

Shelf-life - Storage

Shelf-life is 12 months, in dry and frost-free conditions.

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TÜV CERT EN ISO 9001

FLEX PU-50 S

Polyurethane adhesive and sealant, with solvents

Description

FLEX PU-50 S is an one component, polyurethane adhesive and sealing mastic, with solvents, providing:

- Resistance to temperature fluctuations from -20°C to +90°C.
- Excellent bonding to any kind of building material. High elasticity.
- Great endurance to ageing (U.V radiation and weather).
- Painting ability after hardening only with water soluble paints.

Fields of application

FLEX PU-50 S is suitable for sealing vertical and horizontal joints 5-30mm thick, indoor or outdoor, on various materials like concrete aluminium, steel, wood, glass, natural and synthetic stones etc. Also suitable for bonding these materials.

Technical data

Base:	polyurethane
Color:	grey, white
Application temperature:	from +5°C to +40°C
Skin formation:	after 35-40 min
Maturation speed:	4 mm/day
Elastic recovery:	approx. 90%
Hardness according to SHORE A:	50 ± 3
Tensile strength (ISO 8339):	3 N/mm^2
Modulus at 100% elongation (ISO 8339):	1.4 N/mm^2
Elongation at break: (ISO 8339)	350%

Directions for use

1. Substrate
Substrate must be dry and free of dust, loose particles, grease etc. It is recommended that the joint is cleaned up by using a paintbrush or a wire brush and then air-blasted.
To avoid undesirable soiling at joint edges, a self-adhesive paper-tape is applied alongside the edges and then removed immediately after sealing the joint (before skin formation).

2. Application
Insert cartridge in the special gun and cut nozzle in a slant way so that as it does not fit into the joint but just touches and slides along the edges. FLEX PU-50 S is applied by driving the cartridge alongside the joint axis at a 45° angle. While still fresh, the mastic is leveled using a trowel.
Cleaning of tools:
Tools must be cleaned thoroughly with common solvents while material is still fresh. If material is hardened, tools may be mechanically cleaned.

Consumption

- Joint 10mm x 10mm:
  1 cartridge / 3 m of joint length.
- Joint 5mm x 5mm:
  1 cartridge / 12 m of joint length.

Packaging

- Cartridges of 300 ml.
- Sausages of 600 ml.

Shelf-life - Storage

Shelf-life is 9 months, in dry and frost-free conditions.

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TÜV CERT EN ISO 9001

FLEX PU-2K

Two component, polyurethane joint sealant

Description

FLEX PU-2K is a two component joint sealant based on polyurethane resins. When mixed, the two components are vulcanised to an elastic and cohesive mass.
The sealant has excellent UV resistance and thermostability (it contains UV stabilizers and antioxidants).

Available in two types:
- **FLEX PU-2KV** for vertical surfaces
- **FLEX PU-2KH** for horizontal surfaces

Fields of application

FLEX PU-2K is suitable for sealing vertical and horizontal concrete joints in buildings, civil engineer and hydraulic (irrigation and water supply) works (canals, tanks, etc.).

Technical data

Uncured Sealant

Density at +23°C:	1,45 gr/cm^3
Application temperature:	+5°C - +35°C
Pot life:	25-60 min
Vulcanization rate:	1-2 days

Cured Sealant

Tension at 100% extension (DIN EN 28339):	15-20 N/cm^2
Tensile strength at break (DIN EN 28339):	35-45 N/cm^2
Elongation at break point (DIN EN 28339):	400-450%
Hardness (Shore A) :	14-18
Movement Capability:	+/- 25%
Recovery 100% extension:	90%

Directions for use

1. Preparation
- It is recommended that the minimum joint width should be no less than 1-1,5 cm and the maximum no more than 5 cm. However, it can be used in applications where the joint width reaches 8 cm. The sealing depth can be adjusted to the 50% of the joint width, but the minimum limit is 1,5 cm.
- The joint walls need to be thoroughly cleaned from loose particles, dust etc by blowing with compressed air and primed with PRIMER V.
- The depth of the sealing is regulated, when necessary, with CELLUFILL (backing rod from expanded polyethylene).

2. Sealing
- The two components, packaged at a certain dosimetric rate, need to be thoroughly mixed with the use of a proper mixer, e.g. a helical one attached to a drill. The mixing must be continuous until the complete homogenisation of the mixture.
- The mixed sealant is applied into the joint by means of a special gun or a spatula (for minor applications).
- The surface of the uncured sealant is smoothed with a spatula, so as to form a slightly negative crescent.

Consumption

1,45 kg/l of joint volume

Packaging

FLEX PU 2K is supplied in packages (A+B) of 5 kg, with components A and B having the fixed weight proportion.

Shelf-life - Storage

Shelf-life is 6 months, in dry and frost-free conditions.

Remarks

Rain, as well as temperatures under 5°C or over 35°C during the application, must be avoided.

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TÜV CERT EN ISO 9001

FLEX MS-45

Elastomeric adhesive and sealant

Description

One-component, elastomeric adhesive and sealant, based on hybrid polymeric resins.

- Resistance to temperature fluctuations from -40°C to +90°C.
- Excellent bonding to any kind of building material.
- High elasticity.
- Great endurance to ageing and weather.
- Adheres even to wet substrates even without primer.
- It prevents from fungi growth.
- Painting ability after hardening.

Fields of application

FLEX MS-45 is suitable for sealing vertical and horizontal joints 3-40mm wide, indoor or outdoor, on materials like glass, aluminium, wood, granite, marble, PVC etc. Also suitable for elastic bonding on various substrates.It is not recommended for joints immersed into water or in direct contact with food products.

Technical data

Base:	hybrid polymeric resins
Color:	grey, redbrown
Application temperature:	from +5°C to +40°C
Skin formation:	after 30-45 min
Maturation speed:	4 mm/day
Joint movement capability:	± 25%
Elastic recovery:	approx. 95%
Hardness according to SHORE A:	35-40
Elongation at break: (ISO 8339)	500%

Directions for use

1.Substrate
Substrate must be free of dust, loose particles, grease etc. It is recommended that the joint is cleaned up by using a paintbrush or a wire brush and then air-blasted.
To avoid undesirable soiling at joint edges, a self-adhesive paper-tape is applied alongside the edges and then removed immediately after sealing the joint (before skin formation).

2. Application
Insert cartridge in the special gun and cut nozzle in a slant way so that as it does not fit into the joint but just touches and slides along the edges. FLEX MS-45 is applied by driving the cartridge alongside the joint axis at a 45° angle. While still fresh, the mastic is levelled using a trowel.

Cleaning of tools:
Tools must be cleaned thoroughly with common solvents while material is still fresh. If material is hardened, tools may be mechanically cleaned.

Consumption

Indicative consumption: 1 cartridge /10 linear meters.

Packaging

Cartridges of 280 ml.

Shelf-life - Storage

Shelf-life is 12 months from production date in dry and frost-free conditions.

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TÜV CERT EN ISO 9001

WATERSTOP 1520

Swelling bentonite tape

Description

Swelling tape which consists of sodium bentonite, embedded in a matrix of non-vulcanized rubber as binding agent. In contact with water develops volume by swelling up to 270%. As a result it seals and waterproofs the joint gaps permanently.

Fields of application

WATERSTOP 1520 is used to underground constructions for sealing horizontal or vertical connection joints to concrete elements. Also it can be used for sealing conjunction joints (e.g pipes through concrete walls etc.).

Technical data

Color:	green
Dimentions:	15 mm x 20 mm
Density:	1,53 kg/lit
Water pressure strength:	5 atm
Swelling volume:	270%
Application temperature:	+5°C up to +50°C

Packaging

Rolls of 5 m.

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TÜV CERT EN ISO 9001

DELTA-FOL PVG

Roofing membrane for ventilated roofs

Description

The waterproofing membrane DELTA-FOL PVG is suitable to be placed on ventilated (cold) roofs onto the sheeting. Alternatively, it can be used on cold roofs without sheeting. In that occasion the membrane should be placed onto the rafters or the counter battens that encompass the thermal insulation, tensioned or to form a slight sag .The membrane is used also for (cold) roofs made of reinforced concrete and is placed onto the counter battens.
The waterproofing layer is consisted from low density polyethylene that forms the absolute hydro-insulation against water, snow and humidity. Thanks to its special surface structure is very non-slip and abrasion-proof.
The membrane is having satisfactory vapor permeability (S_d = 3 m) due to the micro-sized holes which allow vapor but not water to pass through. Moreover, the membrane is very easy mounted without danger of tearing because of the low weight and great mechanical strength.
In case of ventilated roofs, the vapor-barrier is additional benefit, since the vapor distribution in the air is really fast. If a vapor-barrier is necessary DELTA-FOL PVG can be ideally combined with a DELTA REFLEX air and vapour barrier.

Technical data

Material:	3 layers - Spun fibre material combined with an inner waterproof layer
Mechanical strength:	
• by length:	270 N/5 cm
• by width:	200 N/5 cm
Impermeability:	Watertight (DIN EN 13111)
Vapor-permeability:	S_d = 3 m
Resistance to temperature changes:	-40°C up to +80°C
Fire resistance:	Highly fire resistant B1 as per DIN 4102 Class E (EN 13501-1)
Weight:	195 gr/m^2

Packaging

Rolls of 1,5m x 50m (75 m^2) each.

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TÜV CERT EN ISO 9001

DELTA-FOL PVE

Roofing membrane for ventilated roofs

Description

The waterproofing membrane DELTA-FOL PVE is suitable to be placed on ventilated (cold) roofs onto the sheeting. Alternatively, it can be used on cold roofs without sheeting. In that occasion the membrane should be placed onto the rafters or the counter battens that encompass the thermal insulation, tensioned or to form a slight sag .The membrane is used also for (cold) roofs made of reinforced concrete and is placed on the counter battens.
The waterproofing layer is consisted from two attached layers of special polymer EVA that form the absolute hydro-insulation against water, snow and humidity. Between the two layers is placed the reinforcement net. On the down side of the membrane is attached a fabric non-woven layer.
The membrane is having satisfactory vapor permeability (S_d = 3 m) which allow vapor but not water to pass through. Moreover, the membrane is very easy mounted without danger of tearing because of the low weight and great mechanical strength.
In case of ventilated roofs, the vapor-barrier is additional benefit, since the vapor distribution in the air is really fast. If a vapor-barrier is necessary DELTA-FOL PVE can be ideally combined with a DELTA REFLEX air and vapour barrier.

Technical data

Material:	3 layers - 2 attached layers of polymer with addition of fabric non-woven layer
Reinforcement:	PP net
Mechanical strength:	
• by length:	400 N/5 cm
• by width:	400 N/5 cm
Impermeability:	Watertight (DIN EN 13111)
Vapor-permeability:	S_d = 3 m
Resistance to temperature changes:	-40°C up to +80°C
Fire resistance:	Highly fire resistant B1 as per DIN 4102 Class E (EN 13501-1)
Weight:	165 gr/m^2

Packaging

Rolls of 1,5m x 50m (75 m^2) each.

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TÜV CERT EN ISO 9001

DELTA-VENT S

Roofing membrane for non - ventilated roofs

Description

The waterproofing membrane DELTA-VENT S is suitable to be placed on non ventilated (warm) roofs onto the sheeting. Alternatively, it can be used on roofs without sheeting. In that occasion the membrane should be placed onto the rafters or the counter battens that encompass the thermal insulation. The membrane is used also for non-ventilated (warm) roofs made of reinforced concrete and is placed onto the counter battens.
DELTA-VENT S is a strong spun-bonded polypropylene composite breather membrane which includes a fabric mat layer on lower side which protects against damage e. g. from roughly sawed sheeting. The membrane is also laminated by a special ultrasonic welding process ensuring secure layer bonding.
With its high vapour permeability (Sd value of approx. 0.02 m) DELTA-VENT S consistently absorbs migrating residual moisture from the inside and lead it safely away.
Moreover, the membrane is very easy mounted without danger of tearing because of the low weight and great mechanical strength. The membrane is extremely rugged and withstands rough treatment on the site.
In case of non- ventilated (warm) roofs, the vapor-barrier is necessary under the thermal insulation, in order to avoid condensation of water vapor. DELTA VENT S can be ideally combined with a DELTA REFLEX air and vapour barrier.

Technical data

Material:	3-layer, pitched roof membrane made of a tear-resistant, vapour permeable PP spun non-woven fabric / film combination
Mechanical strength:	
• by length:	250 N/5 cm
• by width:	250 N/5 cm
Impermeability:	Watertight (DIN EN 13111)
Vapor-permeability:	S_d = 0,02 m
Resistance to temperature changes:	-40°C up to +80°C
Fire resistance:	Standard B2 fire resistance as per DIN 4102 Class E (EN 13501-1)
Weight:	140 gr/m^2

Packaging

Rolls of 1,5m x 50m (75 m^2) each.

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TÜV CERT EN ISO 9001

DELTA-VENT N

Roofing membrane for non-ventilated roofs

Description

The waterproofing membrane DELTA-VENT N is suitable to be placed on non – ventilated (warm) roofs without sheeting onto the rafters or the counter battens that encompass the thermal insulation. The membrane is used also for non-ventilated (warm) roofs made of reinforced concrete and is placed onto the counter battens.
DELTA-VENT N is a strong spun-bonded polypropylene composite breather membrane which includes a fabric mat layer on lower side which protects against damage e. g. from roughly sawed sheeting. The membrane is also laminated by a special ultrasonic welding process ensuring secure layer bonding.
With its high vapour permeability (Sd value of approx. 0.02 m) DELTA-VENT N consistently absorbs migrating residual moisture from the inside and lead it safely away.
Moreover, the membrane is very easy mounted without danger of tearing because of the low weight and great mechanical strength. The membrane is extremely rugged and withstands rough treatment on the site.
In case of non- ventilated (warm) roofs, the vapor-barrier is necessary under the thermal insulation, in order to avoid condensation of water vapor. DELTA-VENT N can be ideally combined with a DELTA-REFLEX air and vapour barrier.

Technical data

Material:	3-layer, pitched roof membrane made of a tear-resistant, vapour permeable PP spun non-woven fabric / film combination
Mechanical strength:	
• by length:	210 N/5 cm
• by width:	155 N/5 cm
Impermeability:	watertight (DIN EN 13111)
Vapor-permeability:	S_d = 0, 02 m
Resistance to temperature changes:	-40°C up to +80°C
Fire resistance:	standard B2 fire resistance as per DIN 4102 Class E (EN 13501-1)
Weight:	120 gr/m^2

Packaging

Rolls of 1,5m x 50m (75 m^2) each.

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TÜV CERT EN ISO 9001

DRAGOFOL

White roofing membrane for ventilated roofs

Description

The waterproofing membrane DRAGOFOL is suitable to be placed on ventilated (cold) roofs onto the rafters.The vapour-permeability of DRAGOFOL is achieved by being perforated with micro-sized holes which allow vapour but not water to pass through. DRAGOFOL is not recommended if is going to be laid on top of the sheeting, because in that case it is possible that water could pass through the micro-sized holes due to cohesion forces. The membrane is used also for (cold) roofs made of reinforced concrete.
DRAGOFOL is a mesh-reinforced polyethylene film, microperforated which offers long-lasting, durable protection from dust, rain and driven snow.
The membrane is having satisfactory vapor permeability (S_d = 3 m) which allows extra exchange of air moisture via special microperforation.
Moreover, the membrane is very easy mounted without danger of tearing because of its low weight and great mechanical strength.
In case of ventilated roofs, the vapor-barrier is an additional benefit, since the vapor distribution in the air is really fast. If a vapor-barrier is necessary DRAGOFOL can be ideally combined with a DELTA REFLEX air and vapor barrier.

Technical data

Material:	mesh-reinforced polyethylene film, microperforated
Reinforcement:	PP net
Mechanical strength:	
• by length:	350 N/5 cm
• by width:	350 N/5 cm
Impermeability:	Watertight (DIN EN 13111)
Vapor-permeability:	S_d = 3 m
Resistance to temperature changes:	-40°C up to +80°C
Fire resistance:	Highly fire resistant B1 as per DIN 4102 Class E (EN 13501-1)
Weight:	140 gr/m^2

Packaging

Rolls of 1,5m x 50m (75 m^2) each

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TÜV CERT EN ISO 9001

DELTA-FOL LP

Transparent roofing membrane for ventilated roofs

Description

The waterproofing membrane DELTA-FOL LP is suitable to be placed on ventilated (cold) roofs onto the rafters.The vapour-permeability of DELTA-FOL LP is achieved by being perforated with micro-sized holes which allow vapour but not water to pass through. DELTA-FOL LP is not recommended if is going to be laid on top of the sheeting, because in that case it is possible that water could pass through the micro-sized holes due to cohesion forces. The membrane is used also for (cold) roofs made of reinforced concrete.
DELTA-FOL LP is a mesh-reinforced polyethylene film, microperforated which offers long-lasting, durable protection from dust, rain and driven snow.
The membrane is having satisfactory vapor permeability (S_d = 3 m) which allows extra exchange of air moisture via special microperforation.
Moreover, the membrane is very easy mounted without danger of tearing because of the low weight and great mechanical strength.
In case of ventilated roofs, the vapor-barrier is additional benefit, since the vapor distribution in the air is really fast. If a vapor-barrier is necessary DELTA-FOL LP can be ideally combined with a DELTA REFLEX air and vapour barrier.

Technical data

Material:	mesh-reinforced polyethylene film, microperforated
Reinforcement:	PP net
Mechanical strength:	
• by length:	150 N/5 cm
• by width:	150 N/5 cm
Impermeability	Watertight (DIN EN 13111)
Vapor-permeability:	S_d = 3 m
Resistance to temperature changes:	-40°C up to +80°C
Fire resistance:	Highly fire resistant B1 as per DIN 4102 Class E (EN 13501-1)
Weight:	100 gr/m^2

Packaging

Rolls of 1,5m x 50m (75 m^2) each

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TÜV CERT EN ISO 9001

ROOF-TOP

Roofing membrane for ventilated roofs

Description

The waterproofing membrane ROOF-TOP is suitable to be placed on ventilated (cold) roofs onto the sheeting. Alternatively, it can be used on cold roofs without sheeting. In that occasion the membrane should be placed onto the rafters or the counter battens that encompass the thermal insulation, tensioned or to form a slight sag .The membrane is used also for (cold) roofs made of reinforced concrete and is placed onto the counter battens.
The waterproofing membrane is consisted from a layer of oxidized bitumen that forms the absolute hydro-insulation against water, snow and humidity and is double covered of perforated polyethylene film.
The membrane is having minimum vapor permeability (S_d > 100 m) due to its bituminous composition, so is recommended that the unions of successive leaves are not stamped in order to allow vapor but not water to pass through. Moreover, the membrane is very easy mounted without danger of tearing because of the low weight and great mechanical strength.
In case of a vapor-barrier is necessary it is recommended the usage of the roofing membrane DELTA-REFLEX.

Technical data

Material:	3 layers - Polyester reinforcement and double cover of perforated polyethylene film
Reinforcement:	polyester
Mechanical strength:	
• by length:	500 N/5 cm
• by width:	300 N/5 cm
Impermeability:	Waterproofing membrane
Vapor-permeability:	S_d >100 m
Resistance to temperature changes:	-40°C up to +80°C
Weight:	800 gr/m^2

Packaging

Rolls of 1m x 30m (30 m^2) each.

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TÜV CERT EN ISO 9001

ISOMAT BUTYL TAPE ALU

Self-adhesive butyl tape with aluminum coating

Description

ISOMAT BUTYL TAPE ALU is a butyl sealant coated with aluminum laminate.
The adhesive face of the butyl is protected by a siliconized and peelable liner.

Fields of application

ISOMAT BUTYL TAPE ALU is is mainly used for waterproofing and sealing on roofs and terraces, in places such as chimney-roof assemblies, roof vents, etc. Suitable for repairs on roof tiles, sealing joints on the top of the roof etc.

Technical data

Thickness:	0,6 mm
Peel strength: (MEL 052)	4 N/cm
Resistance to tear propagation: (NF T 54-108)	≈ 1 N
Temperature of application:	+5°C up to +40°C
Temperature of service:	-30°C up to + 80°C

Directions for use

1. Substrate
The surface must be clean, dry and free of dust, loose particles etc.

2. Application
Remove the protective liner progressively when installing. Roll-press firmly the product when installing to avoid inclusion of air bubbles. When connecting two tapes, use an overlap of at least 5 cm.

Packaging

Rolls 10 cm x 10 m

Shelf-life - Storage

12 months from production date, in original unopened packaging and protected from humidity. Store in a well ventilated room and at a maximum temperature of 30°C.

Remarks

- For an application between 0°C and +5°C, check beforehand the absence of frost or of condensation on the surface.
- The top foil may be painted after a preliminary test.
- The mechanical performances or butyl sealants decrease with an increase of temperature.
- Butyl sealants are sensitive to solvents.
- Keep out of reach of children.
- Avoid contact with skin.
- Consult the Safety Data Sheet.

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TÜV CERT EN ISO 9001

DELTA-NB

Drainage membrane

Description

Drainage membrane made of high density polyethylene 0,5 mm thick, with dimples 8,0 mm high.

Technical data

Material:	high density polyethylene
Material thickness:	approx. 0,5 mm
Dimple height:	approx. 8 mm
Compressive strength:	200 kN/m^2
Maximum application depth:	7 m
Drainage capacity:	approx. 2,25 lit/sec.m
Air gap between dimples:	approx. 5,30 lit/m^2
Service temperature range:	-30ºC up to +80ºC
Chemical properties:	chemical resistant, plants' roots resistant, degradation restistant, non polluting for drinking water
Fire resistance rating:	class B2 according to DIN 4102

Packaging

Rolls of 40 m^2 (2m x 20m).

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TÜV CERT EN ISO 9001

DELTA-MS

Drainage membrane

Description

Drainage membrane made of high density polyethylene 0,6 mm thick, with dimples 8,0 mm high.

Technical data

Material:	high density polyethylene
Material thickness:	approx. 0,6 mm
Dimple height:	approx. 8 mm
Compressive strength:	250 kN/m^2
Maximum application depth:	10 m
Drainage capacity:	approx. 2,25 lit/sec.m
Air gap between dimples:	approx. 5,30 lit/m^2
Service temperature range:	-30ºC up to +80ºC
Chemical properties:	chemical resistant, plants' roots resistant, degradation restistant, non polluting for drinking water
Fire resistance rating:	class B2 according to DIN 4102

Packaging

Rolls of 40 m^2 (2m x 20m).

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TÜV CERT EN ISO 9001

DELTA-NP-DRAIN

Drainage membrane

Description

Drainage membrane made of high density polyethylene 0,6 mm thick, with dimples 8,0 mm high and polypropylene geotextile bonded to one side.

Technical data

Material of the membrane:	high density polyethylene
Material of the geotextile:	polypropylene
Material thickness:	approx. 0,6 mm
Dimple height:	approx. 8 mm
Compressive strength:	150 kN/m^2
Maximum application depth:	7 m
Drainage capacity:	approx. 2,25 lit/sec.m
Air gap between dimples:	approx. 5,30 lit/m^2
Service temperature range:	-30ºC up to +80ºC
Chemical properties:	chemical resistant, plants' roots resistant, degradation restistant, non polluting for drinking water
Fire resistance rating:	class B2 according to DIN 4102

Packaging

Rolls of 40 m^2 (2m x 20m).

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TÜV CERT EN ISO 9001

DELTA-FLORAXX

Drainage membrane for green roofs

Description

Drainage membrane made of high density polyethylene with octagonal dimples 20 mm high. It has the ability to store water in the dimples and at the same time to drain excess water from its perforations. It combines two functions in one sheet:

- Drainage
- Water storage

Suitable also for inverted roofs as it is vapour permeable

Fields of application

DELTA-FLORAXX is the optimum solution for flat roofs which are to be extensively planted with greenery that does not need much care as it is capable of retaining 7 l/m^2 of water as a reserve for periods of draught.
Due to its octagonal dimples which are reinforced by ribs it offers high compression-resistance (200 KN/m^2), so that it will sustain even heavy loads safely. Thus, it provides an extremely serviceable foundation for green roofs.

Technical data

Material of the membrane:	high density polyethylene (HDPE)
Thickness: approx.	0,6 mm
Dimple height:	20 mm
Compressive strength:	200 kN/m^2
Water storage capacity:	7 l/m^2
Air gap:	14 l/m^2
Lateral water permeability: (EN ISO 12958)	10X10^{-3}m^2/s(10 l/s·m)
Vertical water permeability:	1,2 l/m^2·s
Water vapor permeability:	Sd = 0,4m
Operating temperature range:	-30 ºC to +80 ºC
CE conformability:	DIN EN 13252 test report TBU 1.1/13525/0394.01-2009

Packaging

Rolls of 40 m^2 (2m x 20m).

Remarks

- Soil can not be spread directly on top of DELTA-FLORAXX immediately after fixing it. A non woven polypropylene geotextile of 125gr/m^2 should be placed first over DELTA-FLORAXX.
- The waterproofing layer beneath DELTA-FLORAXX must be resistant to roots.
- The rolls may be easily and safely joined with the enclosed connecting elements.
- Green roofs protect the waterproofing layer from UV radiation, increase the thermal insulation, reduce noise, collect dust and air pollutants and contribute against the urban heat island effect.

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TÜV CERT EN ISO 9001

DELTA-FLORAXX TOP

Drainage membrane for green roofs

Description

Drainage membrane made of high density polyethylene with octagonal dimples 20 mm high and polypropylene geotextile bonded to one side.
It has the ability to store water in the dimples and at the same time to drain excess water from its perforations. It combines three functions in one sheet:

- Drainage
- Water storage
- Filtration

Suitable also for inverted roofs as it is vapour permeable

Fields of application

DELTA-FLORAXX TOP is the optimum solution for flat roofs which are to be extensively planted with greenery that does not need much care as it is capable of retaining 7 l/m^2 of water as a reserve for periods of draught.
Due to its octagonal dimples which are reinforced by ribs it offers high compression-resistance (200 KN/m^2), so that it will sustain even heavy loads safely. Thus, it provides an extremely serviceable foundation for green roofs.

Technical data

Material of the membrane:	high density polyethylene (HDPE)
Material of the geotextile:	polypropylene
Thickness: approx.	0,6 mm
Dimple height:	20 mm
Compressive strength:	200 kN/m^2
Water storage capacity:	7 l/m^2
Air gap:	14 l/m^2
Lateral water permeability: (EN ISO 12958)	10X10^{-3} m^2/s (10 l/s·m)
Vertical water permeability:	1,2 l/m^2·s
Water vapor permeability:	Sd = 0,4m
Operating temperature range:	-30 ºC to +80 ºC
Characteristic opening size geotextile: (EN ISO 12956)	0,15mm
CE conformability:	DIN EN 13252 test report TBU 1.1/13525/0580.0.1-2009

Packaging

Rolls of 20 m^2 (2m x 10m).
Geotextile width: 2,10 m.

Remarks

- The waterproofing layer beneath DELTA-FLORAXX TOP must be resistant to roots.
- Soil may be spread directly on top of DELTA-FLORAXX TOP immediately after fixing it.
- The rolls may be easily and safely joined with the enclosed connecting elements.
- Green roofs protect the waterproofing layer from UV radiation, increase the thermal insulation, reduce noise, collect dust and air pollutants and contribute against the urban heat island effect.

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TÜV CERT EN ISO 9001

DELTA TERMINATION BARS

Special bars for fixing DELTA drainage membranes

Description

Special termination bars used to cover the top edge of DELTA drainage membranes in vertical applications. They are mechanically fixed above the height of the existing waterproofing layer, so is not allowed the entry of materials between the drainage membrane and the waterproofing layer during the phase of filling with rubble.

Packaging

Profile's length: 2 m. 20 pieces per pack.

DELTA SCREWS

Screws for the montage of DELTA drainage membranes

Description

Used for the montage of DELTA drainage membranes as plugs. They can also be used as bradawls bonded with their self-adhesive head to the substrate when there is a waterproofing layer under the drainage membrane.

Packaging

Box including 100 pieces.

DELTA WASHERS

Washers for the installation of DELTA drainage membranes

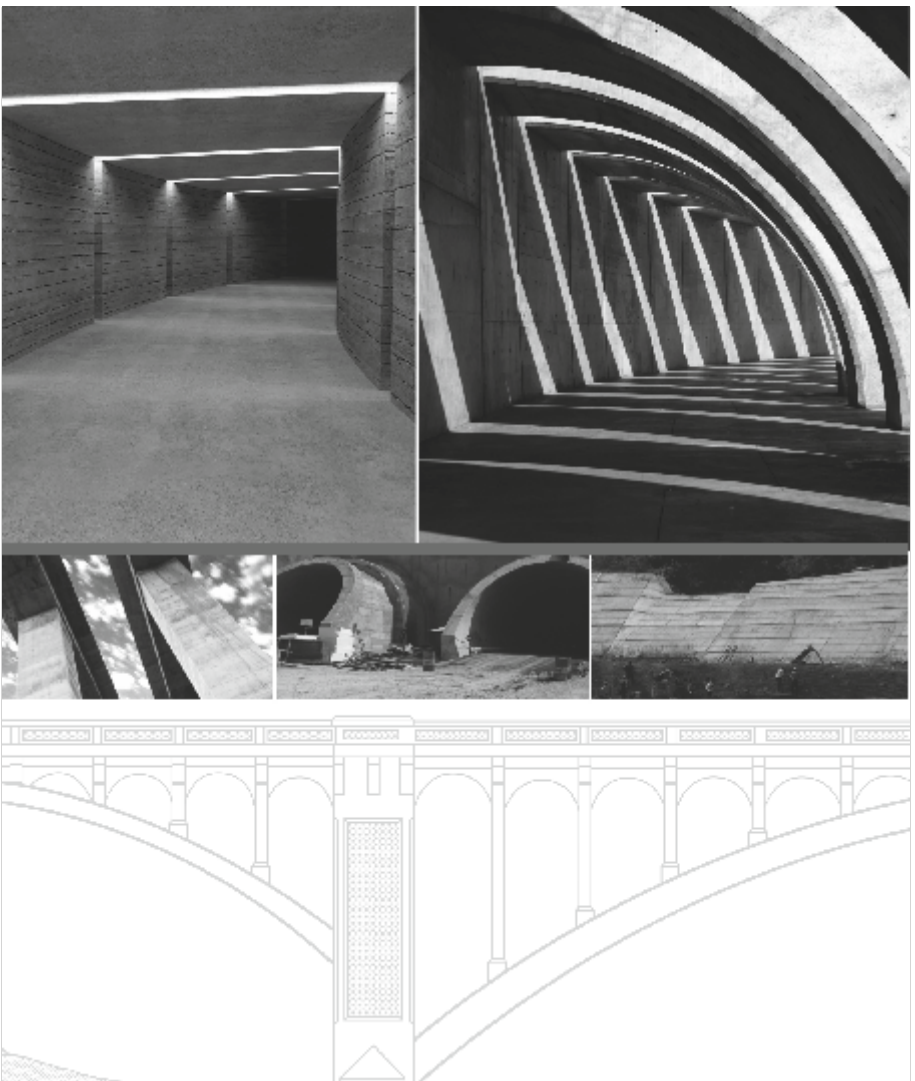
Description

They are applied to the dimples of DELTA drainage membranes in points where the membrane is screwed, allowing secure installation without tearing.

Packaging

Bags including 100 pieces.

2. CONCRETE & MORTAR ADDITIVES



PLASTIPROOF

Plasticizer, type A - Concrete waterproofing admixture

Description

PLASTIPROOF is a liquid admixture acting as a concrete plasticizer and waterproofing agent (ASTM C-494: Type A), offering the following advantages:

- Significantly increases water impermeability, against either water pressure or capillary absorption.
- Improves workability without addition of water.
- Has no air entraining action.
- It is free of chlorides and other corrosive ingredients.
- It is compatible with all kinds of Portland cement.

Certified with the CE marking as a concrete Water Reducing/Plasticizing & Water Resisting admixture according to EN 934-2:T2 & T9, certificate number: 0906-CPD-02412007.

Fields of application

PLASTIPROOF is a necessary aid for preparing high strength concrete, exposed concrete, pumpable concrete etc.
It is suitable for any type of concrete element that is constantly or temporarily in contact with water, such as foundations, basements, water tanks, tunnels, canals, sewage and wastes treatment tanks, swimming pools etc.

Technical data

Color:	dark brown
Density:	1,08 - 1,14 kg/lit
pH:	8,00 2,00
Maximum chloride content:	chloride free
Maximum alkali content:	≤ 4,0% by weight

Directions for use

PLASTIPROOF can be added:

- Into the mixing water during the preparation of concrete.
- Into the ready-mixed concrete, just before use.

In this case, the concrete truck mixer should rotate for an additional 3-5 minutes, to achieve uniform dispersion into the concrete mass.

Dosage

0,2-0,5 kg per 100 kg of cement.

Packaging

PLASTIPROOF is supplied in plastic containers of 5 kg, 20 kg, in drums of 240 kg and in tanks of 1000 kg.

Shelf-life - Storage

18 months from production date if stored in original, unopened packaging, in temperature between +5°C and +35°C. Protect from direct sun exposure and frost.

Remarks

- An excessive dosage may cause retardation of setting time, without negatively affecting the final strength.

PLASTIPROOF

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EN 934-2:2009

PLASTIPROOF

Water Reducing/Plasticizing & Water Resisting admixture for concrete
EN 934-2: T.2 & T.9

Max chloride content: chloride free

Max alkali content: ≤ 4,0 % by weight

Corrosive behaviour [1]: -

Dangerous substances: none

[1]:Only required when placed in the market of a member state which regulates these items

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BEVETOL-RD

Set retarding and water reducing concrete admixture, type G

Description

BEVETOL-RD is a wide range super-plasticizer (ASTM C 494 as Type A, D and G), offering the following advantages:

- Long distance transport of ready-mixed concrete,
- Helps avoid work joints between concreting works.
- When added into the ready-mixed concrete, increases slump from 1-4 cm to 18-22 cm without additional water.
- Contributes to better hydration of cement.
- Facilitates compaction of concrete, reduces segregation and significantly improves workability and pumpability.
- Significantly reduces setting shrinkage (crack prevention).
- Improves water impermeability.
- Does not have air entraining action.
- It is free of chlorides and other corrosive constituents.
- It is compatible with all kinds of Portland cement.

Certified with the CE marking as a concrete superplasticizer - setting retarder according to EN 934-2: T11.1 and T11.2, certificate number: 0906-CPD-02412007.

Fields of application

BEVETOL-RD is used where high retention of concrete's workability is required and for preparing high strength concrete, exposed concrete, pumpable concrete etc.

Technical data

Color:	dark brown
Density (at 25°C):	1,16 - 1,20 kg/lit
pH:	7 ± 1
Chloride content:	chloride free
Maximum alkali content:	≤ 3,0% by weight

Directions for use

BEVETOL-RD may be added:

- Into the mixing water during the preparation of concrete.
- Into the ready-mixed concrete, just before use. In this case, the concrete truck mixer should rotate for an additional 4-5 minutes, to achieve uniform dispersion of BEVETOL-RD into the concrete mass.

Dosage

0,2 - 0,8 kg per 100 kg of cement.

When used for ready-mixed concrete, the consumption of BEVETOL-SPL depends on the initial and the desired slump at site.

Packaging

BEVETOL-RD is supplied in:

- pails of 20 kg,
- drums of 250 kg and
- tanks of 1000 kg.

Shelf-life - Storage

12 months from production date if stored in original, unopened packaging, in temperature between +5°C and +35°C. Protect from direct sun exposure and frost.

Remarks

An excessive dosage may cause retardation of setting time, without affecting negatively the final strength.

BEVETOL-RD

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EN 934-2:2009

BEVETOL-RD

Set Retarding/ High Range Water Reducing/
Superplasticizing Admixture
EN 934-2: T11.1/11.2

Max chloride content: chloride free

Max alkali content: ≤ 3,0 % by weight

Corrosive behaviour [1]: -

Dangerous substances: none

[1]:Only required when placed in the market of a member state which regulates these items

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BEVETOL-SPL

Concrete superplasticizer, type G

Description

BEVETOL-SPL is a wide range super-plasticizer (ASTM C-494: Type A, D and G), offering the following advantages:

- When added during preparation of concrete, reduces the water required and the resulting water/cement ratio thus significantly increasing both initial and final strength.
- When added into the ready-mixed concrete, increases slump from 1-4 cm to 18-22 cm without additional water.
- Contributes to better hydration of cement.
- Facilitates compaction of concrete, reduces segregation and significantly improves workability and pumpability.
- Significantly reduces setting shrinkage (crack prevention).
- Improves water impermeability.
- Does not have air entraining action.
- It is free of chlorides and other corrosive constituents.
- It is compatible with all kinds of Portland cement.

Certified with the CE marking as a concrete concrete superplasticizer - setting retarder according to EN 934-2: T11.1 and T11.2, certificate number: 0906-CPD-02412007.

Fields of application

BEVETOL-SPL is a necessary aid for preparing high strength concrete, exposed concrete, pumpable concrete etc.

Technical data

Color:	darkbrown
Density:	1,15 - 1,21 kg/lit
pH:	8,00 ± 1,00
Maximum chloride content:	chloride free
Maximum alkali content:	≤ 4,0% by weight

Directions for use

BEVETOL-SPL may be added:

- Into the mixing water during the preparation of concrete.
- Into the ready-mixed concrete, just before use. In this case, the concrete truck mixer should rotate for an additional 4-5 minutes, to achieve uniform dispersion into the concrete mass.

Classification - Dosage

- As a superplasticizer (type G): 0,6-0,8 kg per 100 kg of cement weight.
- At smaller dosages BEVETOL-SPL acts as a plasticizer (type A, D).

When used for ready-mixed concrete, the consumption of BEVETOL-SPL depends on the initial and the desired slump at site.

Packaging

BEVETOL-SPL is supplied in plastic containers of of 5 kg, 20 kg, in drums of 250 kg and in tanks of 1000 kg.

BEVETOL-SPL

Shelf-life - Storage

18 months from production date if stored in original, unopened packaging, in temperature between +5°C and +35°C. Protect from direct sun exposure and frost.

Remarks

An excessive dosage may cause retardation of setting time, without affecting negatively the final strength.

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EN 934-2:2009

BEVETOL-SPL

Set Retarding/ High Range Water Reducing/ Superplasticizing Admixture
EN 934-2: T11.1/11.2

Max chloride content: chloride free

Max alkali content: ≤ 4,0 % by weight

Corrosive behaviour [1]: -

Dangerous substances: none

[1]:Only required when placed in the market of a member state which regulates these items

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REOTOL-SPL

Concrete superplasticizer, type F

Description

REOTOL-SPL is a wide range superplasticizer (ASTM C-494: Type A and F), offering the following advantages:

- When added during preparation of concrete, reduces the water required and the resulting water/cement ratio thus significantly increasing both initial and final strength.
- When added into the ready-mixed concrete, increases slump from 1-4 cm to 18-22 cm without additional water.
- Contributes to better hydration of cement.
- Facilitates compaction of concrete, reduces segregation and significantly improves workability and pumpability.
- Significantly reduces setting shrinkage (crack prevention).
- Improves water impermeability.
- Does not have air entraining action.
- It is free of chlorides and other corrosive constituents.
- Does not have a retarding effect.
- It is compatible with all kinds of Portland cement.

Certified with the CE marking as a concrete superplasticizer according to EN 934-2: T3.1 and T3.2, certificate number: 0906-CPD-02412007.

Fields of application

REOTOL-SPL is a necessary aid for preparing of high-strength concrete, exposed concrete, pumpable concrete etc.

Technical data

Color:	dark brown
Density:	1,11 - 1,17 kg/lit
pH:	8,20 ± 0,40
Maximum chloride content:	chloride free
Maximum alkali content:	≤ 4,0% by weight

Directions for use

REOTOL-SPL may be added:

- Into the mixing water during the preparation of concrete.
- Into the ready-mixed concrete, just before use. In this case, the concrete truck mixer should rotate for an additional 4-5 minutes, to achieve uniform dispersion into the concrete mass.

Classification - Dosage

- As a type F superplasticizer: 1,2-1,7 kg per 100 kg of cement.
- As a type A plasticizer: 0,9-1,1 kg per 100 kg of cement.

Packaging

REOTOL-SPL is available in plastic containers of 20 kg and in drums of 240 kg and in tanks of 1000 kg.

Shelf-life - Storage

18 months from production date if stored in original, unopened packaging, in temperature between +5°C and +35°C. Protect from direct sun exposure and frost.

REOTOL-SPL

Remarks

An excessive dose may cause retardation of setting time, without affecting negatively the final strength.

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EN 934-2:2009

REOTOL-SPL

High Range Water Reducing/
Superplasticizing Admixture
EN 934-2: T3.1/3.2

Max chloride content: chloride free

Max alkali content: ≤ 4,0 % by weight

Corrosive behaviour [1]: -

Dangerous substances: none

[1]:Only required when placed in the market of a member state which regulates these items

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ADIUM 110

Broad-use new generation concrete superplasticizer

Description

ADIUM 110 is a new generation polycarboxylate-based superplasticizer specially developed for the production of ready-mix concrete where high workability, excellent slump retention, high strength and durability are required. It is offering the following advantages:

- When added during the preparation of concrete, reduces the water demand up to 20% and the resulting water/cement ratio thus significantly increasing both initial and final strength.
- When added to the ready-mixed concrete improves significantly its workability with a spread flow up to 63 cm (fluid concrete) without need of additional water.
- Contributes to better hydration of cement.
- Facilitates compaction of concrete, reduces segregation and bleeding and significantly improves pumpability.
- Significantly reduces setting shrinkage (crack prevention) and creeping.
- Improves water impermeability.
- Improves resistance to carbonation and chloride ion attack.
- Does not have air entraining action.
- It is free of chlorides and other corrosive constituents.
- It is compatible with all kinds of Portland cement.

Certified with the CE marking as a concrete superplasticizer according to EN 934-2:T3.1 and T3.2, certificate number: 0906-CPD-02412007.

Working mechanism

ADIUM 110 is an innovative superplasticizer of the newest technology based on modified polycarboxylic ether polymer.
Compared to the conventional superplasticizers it predominates in the performance because it gives at low dosage high water reduction or great flowability with high duration.
These properties are attributed to the specifically designed chemical structure as well as to the unique working mechanism of ADIUM 110 differing significant from the working mechanism of the conventional superplasticizers which are based on polymer chains of modified lignosulfonates, sulphonated naphthalene-based and melamine-based polycondensates.
The polymer chains of the conventional superplasticizers caring a very high anionic charge are immediately adsorbed on the surface of the cement particles and render it a negative charge. Because of the electrostatic repulsion forces the cement particles are dispersed and the result is that less mixing water is required to achieve a desired concrete workability. However the adsorbed polymer chains are rapidly overlapped by crystals developed during the hydration of cement and the consequence is an early loss of the superplasticizing action. Therefore the conventional superplasticizers shall be added directly into the concrete on the construction site or in the concrete plant, in case this is placed next to the construction site.
Contrary to that, the new generation superplasticizers act with a very different working mechanism. They are a copolymer consisting of an anionic backbone with carboxylic groups and long polyethylene oxide-side chains. After the addition of the superplasticizer to concrete the anionic main chain is adsorbed on the positive charged surface of the cement particles whereas the side chains induce a steric repulsion effect between the cement particles. Due to this repulsive force maximum dispersibility is reached and agglomeration can be avoided. Furthermore new polymer chains are continuously released and adsorbed on the crystals which are developed on the surface of the cement particles during the hydration and prevent the early setting of concrete.

ADIUM 110

Therefore high workability of concrete and maximum hydration of cement at low water/cement ratio are achieved causing a very compact structure of the hardened concrete with very high strength.

Fields of application

ADIUM 110 is a necessary aid for preparing high strength concrete, exposed concrete, pumpable concrete etc. It is suitable for any type of concrete element such as foundations, basements, water tanks, tunnels, canals, sewage and wastes treatment tanks, swimming pools etc.

Technical data

Color:	slightly yellow
Density:	1,01 - 1,05 kg/lit
pH:	6,30 ± 0,50
Maximum chloride content:	chloride free
Maximum alkali content:	≤ 2,0% by weight

Increase of spread flow of concrete according to dosage of ADIUM 110:

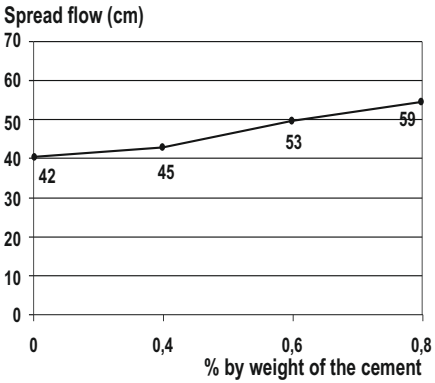

Table 1. Spread flow of reference concrete C20/25, CEM II/B 32,5 (320 kg/m^3), w/c ratio = 0,59.

Increase of slump of concrete according to dosage of ADIUM 110:

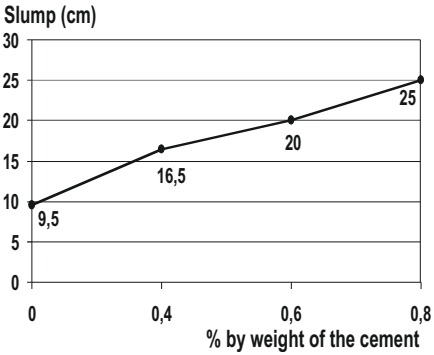

Table 2. Slump of reference concrete C20/25, CEM II/B 32,5 (320 kg/m^3), w/c ratio = 0,59.

Increase of compression strength of concrete according to dosage of ADIUM 110, with simultaneous reduction of mix water and maintenance of spread flow same as the reference concrete (42 cm):

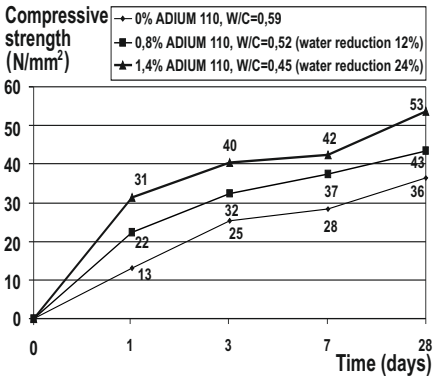

Table 3. Increase of compression strength of reference concrete C20/25, Cement CEM II/B 32,5 (320kg/m^3), w/c=0,59 and reduction of w/c ratio by 12% and 24%.

ADIUM 110

The results of tables are indicative and can be differentiated for different compositions of concrete and types of cement. In any case is recommended that trial mixes should be carried out to determine the most effective dose. The most optimal dosage is influenced by the constitution of concrete (quantity and type of cement, quantity and gradation of aggregates and the w/c ratio).

Directions for use

ADIUM 110 should be added to the ready concrete mixture just after its preparation in order to achieve highest effectiveness. It can also be added into the ready-mixed concrete, just before use.
To achieve uniform dispersion into the concrete mass, the concrete truck mixer should rotate for an additional 4-5 minutes.

Dosage

0,60-1,40 kg per 100 kg of cement.

The consumption of ADIUM 110 depends on the initial and the desired slump at site.
Before application it is recommended to check in a laboratory the action of ADIUM 110 after mixed with the concrete according to the specific mix design and requirements.

Packaging

ADIUM 110 is supplied in plastic containers of 20 kg, in drums of 220 kg and in tanks of 1000 kg.

Shelf-life - Storage

12 months from production date if stored in original, unopened packaging, in temperature between +5°C and +35°C. Protect from direct sun exposure and frost.

Remarks

Overdosage could cause the separation of aggregates from the concrete or the perspiration of concrete, as a result the final strength is reduced.

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EN 934-2:2009

ADIUM 110

High Range Water Reducing - Concrete Superplasticizing Admixture
EN 934-2: T3.1/T3.2

Max chloride content: chloride free

Max alkali content: ≤ 2,0 % by weight

Corrosive behaviour [1]: -

Dangerous substances: none

[1]:Only required when placed in the market of a member state which regulates these items

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ADIUM 130

New generation superplasticizer for long-time delivery of concrete

Description

ADIUM 130 is a new generation polycarboxylate-based superplasticizer specially developed for the production of ready-mix concrete where high workability, excellent slump retention, high strength and durability are required. It is offering the following advantages:

- When added during the preparation of concrete, reduces the water demand up to 20% and the resulting water/cement ratio thus significantly increasing both initial and final strength.
- When added to the ready-mixed concrete improves significantly its workability with a spread flow more than 63 cm (self-compacting concrete) without need of additional water.
- Contributes to better hydration of cement.
- Facilitates compaction of concrete, reduces segregation and bleeding and significantly improves pumpability.
- Significantly reduces setting shrinkage (crack prevention) and creeping.
- Improves water impermeability.
- Improves resistance to carbonation and chloride ion attack.
- Does not have air entraining action.
- It is free of chlorides and other corrosive constituents.
- It is compatible with all kinds of Portland cement.

Certified with the CE marking as a concrete superplasticizer - setting retarder according to EN 934-2: T11.1 and T11.2, certificate number: 0906-CPD-02412007.

Working mechanism

ADIUM 130 is an innovative superplasticizer of the newest technology based on modified polycarboxylic ether polymer.

Compared to the conventional superplasticizers it predominates in the performance because it combines two important properties:

- High water reduction or high flowability, at low dosage.
- Slump retention for two hours.

These properties are attributed to the specifically designed chemical structure as well as to the unique working mechanism of ADIUM 130 differing significant from the working mechanism of the conventional superplasticizers which are based on polymer chains of modified lignosulfonates, sulphonated naphthalene-based and melamine-based polycondensates.
The polymer chains of the conventional superplasticizers caring a very high anionic charge are immediately adsorbed on the surface of the cement particles and render it a negative charge. Because of the electrostatic repulsion forces the cement particles are dispersed and the result is that less mixing water is required to achieve a desired concrete workability. However the adsorbed polymer chains are rapidly overlapped by crystals developed during the hydration of cement and the consequence is an early loss of the superplasticizing action. Therefore the conventional superplasticizers shall be added directly into the concrete on the construction site or in the concrete plant, in case this is placed next to the construction site.
Contrary to that, the new generation superplasticizers act with a very different working mechanism. They are a copolymer consisting of an anionic backbone with carboxylic groups and long polyethylene oxide-side chains. After the addition of the superplasticizer to concrete the anionic main chain is adsorbed on the positive charged surface of the cement particles whereas the side chains induce a steric repulsion effect between the cement particles.

ADIUM 130

Due to this repulsive force maximum dispersibility is reached and agglomeration can be avoided. Furthermore new polymer chains are continuously released and adsorbed on the crystals which are developed on the surface of the cement particles during the hydration and prevent the early setting of concrete. Therefore high workability of concrete and maximum hydration of cement at low water/cement ratio are achieved causing a very compact structure of the hardened concrete with very high strength.

Fields of application

ADIUM 130 is a necessary aid for preparing high strength concrete, exposed concrete, pumpable concrete etc. It is suitable for any type of concrete element such as foundations, basements, water tanks, tunnels, canals, sewage and wastes treatment tanks, swimming pools etc. Ideal for long-time delivery of ready-mixed concrete when a maintenance of slump and workability for two hours is required.

Technical data

Color:	light brown
Density:	1,01 - 1,05 kg/lit
pH:	5,90 ± 1,00
Maximum chloride content:	chloride free
Maximum alkali content:	≤ 2,0% by weight

Increase and maintenance of slump of concrete according to dosage of ADIUM 130:

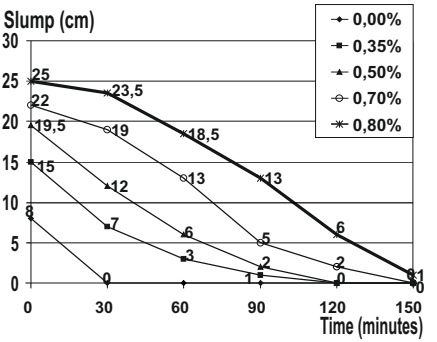

Table 1. Increase and maintenance of slump of concrete according to dosage of ADIUM 130 for concrete C20/25, CEM II/B 32,5, w/c ratio =0,58.

Increase and maintenance of spread flow of concrete according to dosage of ADIUM 130:

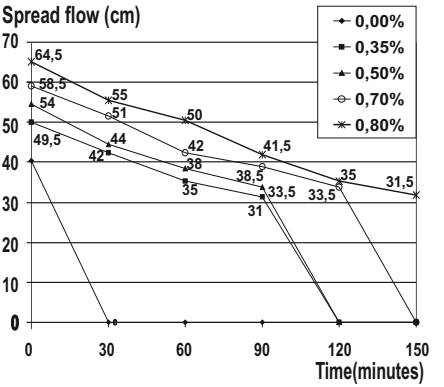

Table 2. Increase and maintenance of spread flow of concrete according to dosage of ADIUM 130 for concrete C20/25, CEM II/B 32,5, w/c ratio =0,58.

ADIUM 130

The results of tables are indicative and can be differentiated for different compositions of concrete and types of cement. In any case is recommended that trial mixes should be carried out to determine the most effective dose. The most optimal dosage is influenced by the constitution of concrete (quantity and type of cement, quantity and gradation of aggregates and the w/c ratio).

Directions for use

ADIUM 130 should be added to the ready concrete mixture just after its preparation in order to achieve highest effectiveness.
To achieve uniform dispersion into the concrete mass, the concrete truck mixer should rotate for an additional 4-5 minutes.

Dosage

0,35-0,70 kg per 100 kg of cement.

The consumption of ADIUM 130 depends on the initial and the desired slump at site.
Before application it is recommended to check in a laboratory the action of ADIUM 130 after mixed with the concrete according to the specific mix design and requirements.

Packaging

ADIUM 130 is supplied in plastic containers of 20 kg, in drums of 220 kg and in tanks of 1000 kg.

Shelf-life - Storage

12 months from production date if stored in original, unopened packaging, in temperature between +5°C and +35°C. Protect from direct sun exposure and frost.

Remarks

Overdosage could cause the separation of aggregates from the concrete or the perspiration of concrete, as a result the final strength is reduced.

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EN 934-2:2009

ADIUM 130

Set Retarding/ High Range Water Reducing - Concrete Superplasticizing Admixture
EN 934-2: T11.1/11.2

Max chloride content: chloride free

Max alkali content: ≤ 2,0 % by weight

Corrosive behaviour [1]: -

Dangerous substances: none

[1]:Only required when placed in the market of a member state which regulates these items

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ADIUM 132

New generation superplastisizer for concrete with extended slump retention

Description

ADIUM 132 is a new generation Polycarboxylate-based superplasticizer specially developed for the production of ready-mix concrete where high workability, excellent slump retention, high strength and durability are required. It is offering the following advantages:

- When added during the preparation of concrete, reduces the water demand up to 25% and the resulting water/cement ratio thus significantly increasing both initial and final strength.
- When added to the ready-mixed concrete improves significantly its workability with a spread flow more than 63 cm (self-compacting concrete) without need of additional water.
- Contributes to better hydration of cement.
- Facilitates compaction of concrete, reduces segregation and bleeding and significantly improves pumpability.
- Significantly reduces setting shrinkage (crack prevention) and creeping.
- Improves water impermeability.
- Improves resistance to carbonation and chloride ion attack.
- Does not have air entraining action.
- It is free of chlorides and other corrosive constituents.
- It is compatible with all kinds of Portland cement.

Certified with the CE marking as set retarding - high range water reducing - concrete superplasticizing admixture according to EN 934-2: T11.1 and T11.2, certificate number: 0906-CPD-02412009.

Working mechanism

ADIUM 132 is an innovative superplasticizer of the newest technology based on modified polycarboxylic ether polymer.
Compared to the conventional superplasticizers it predominates in the performance because it combines two important properties:

- High water reduction or high flowability, at low dosage.
- Slump retention for at least two hours.

These properties are attributed to the specifically designed chemical structure as well as to the unique working mechanism of ADIUM 132 differing significant from the working mechanism of the conventional superplastici-zers which are based on polymer chains of modified lignosulfonates, sulphonated naphthalene-based and melamine-based polycondensates. The polymer chains of the conventional superplasticizers caring a very high anionic charge are immediately adsorbed on the surface of the cement particles and render it a negative charge. Because of the electrostatic repulsion forces the cement particles are dispersed and the result is that less mixing water is required to achieve a desired concrete workability. However the adsorbed polymer chains are rapidly overlapped by crystals developed during the hydration of cement and the consequence is an early loss of the superplasticizing action.

ADIUM 132

Therefore the conventional superplasticizers shall be added directly into the concrete on the construction site or in the concrete plant, in case this is placed next to the construction site. Contrary to that, the new generation of superplasticizers act with a very different working mechanism. They are copolymers consisting of an anionic backbone with carboxylic groups and long polyethylene oxide-side chains. After the addition of the superplasticizer to concrete the anionic main chain is adsorbed on the positive charged surface of the cement particles whereas the side chains induce a steric repulsion effect between the cement particles.
Due to this repulsive force maximum dispersibility is reached and agglomeration can be avoided.
Furthermore new polymer chains are continuously released and adsorbed on the crystals which are developed on the surface of the cement particles during the hydration and prevent the early setting of concrete. Therefore high workability of concrete and maximum hydration of cement at low water/cement ratio are achieved causing a very compact structure of the hardened concrete with very high strength.

Fields of application

ADIUM 132 is a necessary aid for preparing high strength concrete, exposed concrete, pumpable concrete etc. It is suitable for any type of concrete element such as foundations, basements, water tanks, tunnels, canals, sewage and wastes treatment tanks, swimming pools etc. Ideal for long-time delivery of ready-mixed concrete when a maintenance of slump and workability for at least two hours is required.

Technical data

Color:	light brown
Density:	1,03 ± 0,05 kg/l
pH:	5,0 ± 1
Maximum chloride content:	chloride free
Maximum alkali content:	⩽ 2,0 % by weight

Directions for use

ADIUM 132 should be added to the ready concrete mixture just after its preparation in order to achieve highest effectiveness.
To achieve uniform dispersion into the concrete mass, the concrete truck mixer should rotate for an additional 4-5 minutes.

ADIUM 132

Dosage

0,35-0,80 kg per 100 kg of cement.

The consumption of ADIUM 132 depends on the initial and the desired slump at site. Before application it is recommended to check in a laboratory the action of ADIUM 132 after mixed with the concrete according to the specific mix design and requirements.

Packaging

ADIUM 132 is supplied in plastic containers of 20 kg and in tanks of 1000 kg.

Shelf-life - Storage

12 months from production date if stored in original, unopened packaging, in temperature between +5°C and +35°C. Protect from direct sun exposure and frost.

Remarks

Overdosage could cause the separation of aggregates from the concrete or the perspiration of concrete, as a result the final strength is reduced.

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TÜV CERT EN ISO 9001

ADIUM 145

New generation superplasticizer for precast concrete elements

Description

ADIUM 145 is a new generation Polycarboxylate-based superplasticizer specially developed for the production of ready-mix concrete where high workability, excellent slump retention, high strength and durability are required. It is offering the following advantages:

- When added during the preparation of concrete, reduces the water demand up to 25% and the resulting water/cement ratio thus significantly increasing both initial and final strength.
- When added to the ready-mixed concrete improves significantly its workability giving a high spread flow without need of additional water.
- Contributes to better hydration of cement.
- Facilitates compaction of concrete, reduces segregation and bleeding and significantly improves pumpability.
- Significantly reduces setting shrinkage (crack prevention) and creeping.
- Improves water impermeability.
- Improves resistance to carbonation and chloride ion attack.
- Does not have air entraining action.
- It is free of chlorides and other corrosive constituents.
- It is compatible with all kinds of Portland cement.

Certified with the CE marking as high range water reducing - concrete superplasticizing admixture according to EN 934-2: T3.1 and T3.2, certificate number: 0906-CPD-02412009.

Working mechanism

ADIUM 145 is an innovative superplasticizer of the newest technology based on modified polycarboxylic ether polymer.
Compared to the conventional superplasticizers it predominates in the performance because it gives high water reduction at low w/c-ratio or great flowability by the same w/c-ratio.
These properties are attributed to the specifically designed chemical structure as well as to the unique working mechanism of ADIUM 145 differing significant from the working mechanism of the conventional superplasticizers which are based on polymer chains of modified lignosulfonates, sulphonated naphthalene-based and melamine-based polycondensates.
The polymer chains of the conventional superplasticizers caring a very high anionic charge are immediately adsorbed on the surface of the cement particles and render it a negative charge. Because of the electrostatic repulsion forces the cement particles are dispersed and the result is that less mixing water is required to achieve a desired concrete workability. However the adsorbed polymer chains are rapidly overlapped by crystals developed during the hydration of cement and the consequence is an early loss of the superplasticizing action.

ADIUM 145

Therefore the conventional superplasticizers shall be added directly into the concrete on the construction site or in the concrete plant, in case this is placed next to the construction site. Contrary to that, the new generation superplasticizers act with a very different working mechanism. They are copolymers consisting of an anionic backbone with carboxylic groups and long polyethylene oxide-side chains. After the addition of the superplasticizer to concrete the anionic main chain is adsorbed on the positive charged surface of the cement particles whereas the side chains induce a steric repulsion effect between the cement particles. Due to this repulsive force maximum dispersibility is reached and agglomeration can be avoided. Therefore high workability of concrete and maximum hydration of cement at low water/cement ratio are achieved causing a very compact structure of the hardened concrete with very high strength.

Fields of application

ADIUM 145 is a necessary aid for preparing high strength concrete, exposed concrete, pumpable concrete etc. It is suitable for any type of concrete element such as foundations, basements, water tanks, tunnels, canals, sewage and wastes treatment tanks, swimming pools etc.
It is ideal for precast concrete elements.

Technical data

Color:	light brown
Density:	1,04 ± 0,05 kg/l
pH:	6 ± 1
Maximum chloride content:	chloride free
Maximum alkali content:	⩽ 1,5 % by weight

Directions for use

ADIUM 145 should be added to the ready concrete mixture just after its preparation in order to achieve highest effectiveness. It can also be added into the ready-mixed concrete, just before use.
To achieve uniform dispersion into the concrete mass, the concrete truck mixer should rotate for an additional 4-5 minutes.

ADIUM 145

Dosage

0,30-0,70 kg per 100 kg of cement.

The consumption of ADIUM 145 depends on the initial and the desired slump at site. Before application it is recommended to check in a laboratory the action of ADIUM 145 after mixed with the concrete according to the specific mix design and requirements.

Packaging

ADIUM 145 is supplied in plastic containers of 20 kg and in tanks of 1000 kg.

Shelf-life - Storage

12 months from production date if stored in original, unopened packaging, in temperature between +5°C and +35°C. Protect from direct sun exposure and frost.

Remarks

Overdosage could cause the separation of aggregates from the concrete or the perspiration of concrete, as a result the final strength is reduced.

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TÜV CERT EN ISO 9001

ADIUM 150

New generation superplasticizer for precast concrete elements

Description

ADIUM 150 is a new generation polycarboxylate-based superplasticizer specially developed for the production of ready-mix concrete where high workability, excellent slump retention, high strength and durability are required. It is offering the following advantages:

- When added during the preparation of concrete, reduces the water demand up to 30% and the resulting water/cement ratio thus significantly increasing both initial and final strength.
- When added to the ready-mixed concrete improves significantly its workability with a spread flow more than 63 cm (self-compacting concrete) without need of additional water.
- Contributes to better hydration of cement.
- Facilitates compaction of concrete, reduces segregation and bleeding and significantly improves pumpability.
- Significantly reduces setting shrinkage (crack prevention) and creeping.
- Improves water impermeability.
- Improves resistance to carbonation and chloride ion attack.
- Does not have air entraining action.
- It is free of chlorides and other corrosive constituents.
- It is compatible with all kinds of Portland cement.

Certified with the CE marking as a concrete superplasticizer according to EN 934-2: T3.1 and T3.2, certificate number: 0906-CPD-02412007.

Working mechanism

ADIUM 150 is an innovative superplasticizer of the newest technology based on modified polycarboxylic ether polymer.
Compared to the conventional superplasticizers it predominates in the performance because it gives at low dosage high water reduction or great flowability with high duration. These properties are attributed to the specifically specifically designed chemical structure as well as to the unique working mechanism of ADIUM 150 differing significant from the working mechanism of the conventional superplasticizers which are based on polymer chains of modified lignosulfonates, sulphonated naphthalene-based and melamine-based polycondensates. The polymer chains of the conventional superplasticizers caring a very high anionic charge are immediately adsorbed on the surface of the cement particles and render it a negative charge. Because of the electrostatic repulsion forces the cement particles are dispersed and the result is that less mixing water is required to achieve a desired concrete workability. However the adsorbed polymer chains are rapidly overlapped by crystals developed during the hydration of cement and the consequence is an early loss of the superplasticizing action. Therefore the conventional superplasticizers shall be added directly into the concrete on the construction site or in the concrete plant, in case this is placed next to the construction site.
Contrary to that, the new generation superplasticizers act with a very different working mechanism. They are a copolymer consisting of an anionic backbone with carboxylic groups and long polyethylene oxide-side chains. After the addition of the superplasticizer to concrete the anionic main chain is adsorbed on the positive charged surface of the cement particles whereas the side chains induce a steric repulsion effect between the cement particles.
Due to this repulsive force maximum dispersibility is reached and agglomeration can be avoided.
Furthermore new polymer chains are continuously released and adsorbed on the crystals which are developed on the surface of the cement particles during the hydration and prevent the early setting of concrete.
Therefore high workability of concrete and maximum hydration of cement at low water/cement ratio are achieved causing a very compact structure of the hardened concrete with very high strength.

ADIUM 150

Fields of application

ADIUM 150 is a necessary aid for preparing high strength concrete, exposed concrete, pumpable concrete etc. It is suitable for any type of concrete element such as foundations, basements, water tanks, tunnels, canals, sewage and wastes treatment tanks, swimming pools etc.
It is ideal for precast concrete elements.

Technical data

Color:	brown
Density:	1,07 - 1,11 kg/lit
pH:	6,50 ± 0,50
Maximum chloride content:	chloride free
Maximum alkali content:	≤ 2,0% by weight

Increase of spread flow of concrete according to dosage of ADIUM 150:

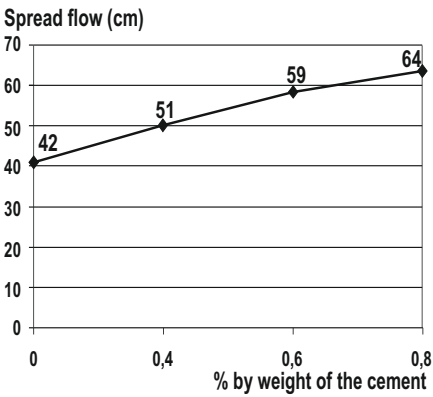

Table 1. Spread flow of reference concrete C20/25, CEM II/B 32,5 (320 kg/m^3), w/c ratio = 0,59.

Increase of slump of concrete according to dosage of ADIUM 150:

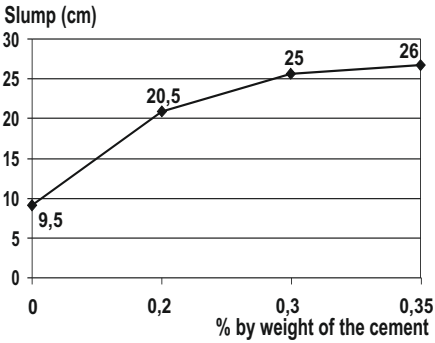

Table 2. Slump of reference concrete C20/25, CEM II/B 32,5 (320 kg/m^3), w/c ratio = 0,59. Increase of compression strength of concrete according to dosage of ADIUM 150, with simultaneous reduction of mix water and maintenance of spread flow same as the reference concrete (42 cm):

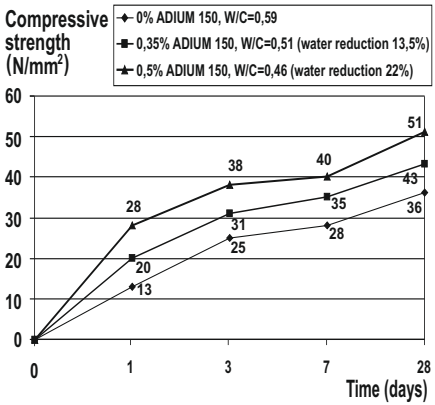

Table 3. Increase of compression strength of reference concrete C20/25, CEM II/B 32,5 (320 kg/m^3), w/c=0,59 and reduction of w/c ratio by 13,5% και 22%.

ADIUM 150

The results of tables are indicative and can be differentiated for different compositions of concrete and types of cement. In any case is recommended that trial mixes should be carried out to determine the most effective dose. The most optimal dosage is influenced by the constitution of concrete (quantity and type of cement, quantity and gradation of aggregates and the w/c ratio).

Directions for use

ADIUM 150 should be added to the ready concrete mixture just after its preparation in order to achieve highest effectiveness. It can also be added into the ready-mixed concrete, just before use.
To achieve uniform dispersion into the concrete mass, the concrete truck mixer should rotate for an additional 4-5 minutes.

Dosage

0,20-0,50 kg per 100 kg of cement.

The consumption of ADIUM 150 depends on the initial and the desired slump at site. Before application it is recommended to check in a laboratory the action of ADIUM 150 after mixed with the concrete according to the specific mix design and requirements.

Packaging

ADIUM 150 is supplied in plastic containers of 20 kg, in drums of 220 kg and in tanks of 1000 kg.

Shelf-life - Storage

12 months from production date if stored in original, unopened packaging, in temperature between +5°C and +35°C. Protect from direct sun exposure and frost.

Remarks

Overdosage could cause the separation of aggregates from the concrete or the perspiration of concrete, as a result the final strength is reduced.

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EN 934-2:2009

ADIUM 150

High Range Water Reducing - Concrete Superplasticizing Admixture
EN 934-2: T3.1/T3.2

Max chloride content: chloride free

Max alkali content: ≤ 2,0 % by weight

Corrosive behaviour [1]: -

Dangerous substances: none

[1]:Only required when placed in the market of a member state which regulates these items

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BEVETOL-VZ

Concrete setting retarder

Description

BEVETOL-VZ is a liquid admixture that retards concrete setting (ASTM C-494: Type B), offering the following advantages:

- Enables delivery of ready-mixed concrete to long distances.
- Helps avoid work joints even in long breaks between concreting works.
- In the proper dosage, it does not retard the development of concrete initial strength that would cause delayed formwork removal.
- Improves pumpability of concrete.
- Facilitates compaction of concrete.
- Reduces segregation and bleeding.
- Limits cracking and shrinkage.
- It is free of chlorides and other corrosive constituents.
- Has no air entraining action.
- It is compatible with all kinds of Portland cement.

Certified with the CE marking as a concrete setting retarder according to EN 934-2:T8, certificate number: 0906-CPD-02412007.

Fields of application

BEVETOL-VZ is used in any case where retarding of concrete setting is required, like long-distance delivery of ready-mixed concrete, hot weather concreting, avoiding work joints etc., providing at the same time improved quality and workability of concrete.

Technical data

Color:	dark brown
Density:	1,10 - 1,17 kg/lit
pH:	7,00 1,00
Maximum chloride content:	chloride free
Maximum alkali content:	≤ 2,0% by weight

Directions for use

BEVETOL-VZ should be added into the mixing water of concrete, considering its water reducing action.

Dosage

0,2-0,4 kg per 100 kg of cement.

Dosage depends on the desired retardation and concrete classification. Site trials should be conducted to determine the optimum dosage.

Packaging

BEVETOL-VZ is available in plastic containers of 20 kg and in drums of 250 kg.

Shelf-life - Storage

12 months from production date if stored in original, unopened packaging, in temperature between +5°C and +35°C. Protect from direct sun exposure and frost.

BEVETOL-VZ

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EN 934-2:2009

BEVETOL-VZ

Set Retarding Admixture
EN 934-2: T8

Max chloride content: chloride free

Max alkali content: ≤ 2,0 % by weight

Corrosive behaviour [1]: -

Dangerous substances: none

[1]:Only required when placed in the market of a member state which regulates these items

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RETADOL

Concrete setting retarder - Plasticizer

Description

RETADOL is a liquid admixture that retards concrete setting and has a water reducing (plasticizing) action (ASTM C-494: Type D), offering the following advantages:

- Enables delivery of ready-mixed concrete to long distances.
- Helps avoid work joints even in long breaks between concreting works.
- In the proper dosage, it does not retard the development of concrete initial strength that would cause delayed formwork removal.
- Through its plasticizing properties, it reduces the water required and the resulting water/cement ratio thus significantly increasing both initial and final strength.
- Improves pumpability of concrete.
- Facilitates compaction of concrete.
- Reduces segregation and bleeding.
- Limits cracking and shrinkage.
- It is free of chlorides and other corrosive constituents.
- Has no air entraining action.
- It is compatible with all kinds of Portland cement.

Certified with the CE marking as a concrete setting retarder - plasticizer according to EN 934-2:T10, certificate number: 0906-CPD-02412007.

Fields of application

RETADOL is used in any case where retarding of concrete setting is required, like long-distance delivery of ready-mixed concrete, hot weather concreting, avoiding work joints etc., providing at the same time improved quality and workability of concrete.

Technical data

Color:	dark brown
Density:	1,12 - 1,18 kg/lit
pH:	6,00 ± 1,00
Maximum chloride content:	chloride free
Maximum alkali content:	≤ 3,0% by weight

Directions for use

RETADOL should be added into the mixing water of concrete, considering its water reducing action.

Dosage

0,2-0,3 kg per 100 kg of cement.

Dosage depends on the desired retardation and concrete classification. Site trials should be conducted to determine the optimum dosage.

Packaging

RETADOL is available in plastic containers of 20 kg, in drums of 250 kg and in tanks of 1000 kg.

Shelf-life - Storage

12 months from production date if stored in original, unopened packaging, in temperature between +5°C and +35°C. Protect from direct sun exposure and frost.

RETADOL

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EN 934-2:2009

RETADOL

Set Retarding/ Water Reducing/
Plasticizing Admixture
EN 934-2: T10

Max chloride content: chloride free

Max alkali content: ≤ 3,0 % by weight

Corrosive behaviour [1]: -

Dangerous substances: none

[1]:Only required when placed in the market of a member state which regulates these items

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ADINOL-RAPID

Broad-use concrete setting accelerator
Antifreezing agent

Description

Liquid admixture that accelerates the setting time of concrete and allows concreting in low temperatures, down to -10°C. Free of chlorides and other corrosive ingredients. Has no negative effect on concrete strength.
Certified with the CE marking as a concrete setting accelerator according to EN 934-2:T6, certificate number: 0906-CPD-02412007.

Fields of application

- Concreting in low temperatures.
- In cases where fast work is required (anchoring, repairs etc.).

Technical data

Color:	dark yellow
Density:	1,47 - 1,53 kg/lit
pH:	6,00 ± 1,00
Maximum chloride content:	chloride free
Maximum alkali content:	≤ 1,0% by weight

Directions for use

ADINOL-RAPID is added:
- Into the mixing water, during the preparation of concrete.
- Into the ready mix just before use. In that case, it is necessary to rotate the mixer for 4-5 minutes to achieve uniform dispersion of ADINOL-RAPID in the mix.

Dosage

1,0-2,0 kg per 100 kg cement, depending on the desired setting time.
Indicative values for ADINOL-RAPID action as concrete setting accelerator in standard reference mixture:

Percentage % by cement weight	Setting time	Reduction of setting time
0	480 min	0
1,0%	410 min	- 70 min
1,5%	390 min	- 90 min
2,0%	375 min	- 105 min

Packaging

ADINOL-RAPID is supplied in plastic containers of 5 kg and 20 kg, in drums of 320 kg and in tanks of 1400 kg.

Shelf-life - Storage

18 months from production date if stored in original, unopened packaging, in temperature between +5°C and +35°C. Protect from direct sun exposure and frost.

Remarks

- Avoid concreting when temperatures are expected to get lower than -10°C in the next 12 hours.
- Concrete components (aggregates, water, cement) must be in temperatures higher than 0°C.
- Avoid adding water for better workability and the water to cement ratio must be as low as possible.
- REOTOL-SPL concrete superplasticizer can be used in parallel.
- Surface of concrete must be protected during setting with plastic sheets or other available materials to reduce hydration heat losses.

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ADINOL-RAPID

Set Accelerating Admixture
EN 934-2: T6

Max chloride content: chloride free

Max alkali content: ≤ 1,0 % by weight

Corrosive behaviour [1]: -

Dangerous substances: none

[1]:Only required when placed in the market of a member state which regulates these items

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ADINOL-RAPID 2H

Hardening accelerator for concrete

Description

Liquid admixture acting as a hardening accelerator for concrete. It is formulated to increase the early strength of concrete during the first 24 hours.

- It accelerates the early age hardening of concrete without negative influence to the final strength.
- It increases the early strengths of concrete (<24 hrs).
- It allows earlier removal of formwork and moulds.
- Does not have air entraining action.
- It is free of chlorides and other corrosive constituents.
- It is compatible with all kinds of Portland cement.

Certified with the CE marking as a concrete hardening accelerator according to EN 934-2:T7, certificate number: 0906-CPD-02412007.

Fields of application

ADINOL-RAPID 2H is recommended for use in concrete where accelerated setting and hardening times are required, especially in low temperatures, for rapid formwork removement in precast concrete, repairs in highway engineering etc.

Technical data

Color:	dark yellow
Density:	1,33 - 1,39 kg/lit
pH:	9,00 ± 1,00
Maximum chloride content:	chloride free
Maximum alkali content:	≤ 1,0% by weight

Directions for use

ADINOL-RAPID 2H is added:

- Into the mixing water, during the preparation of concrete.
- Into the ready mix just before use. In that case, it is necessary to rotate the mixer for 4-5 minutes to achieve uniform dispersion of ADINOL-RAPID 2H in the mix.

Dosage

1,0-2,0 kg per 100 kg cement, depending on the desirable effect.

Packaging

ADINOL-RAPID 2H is supplied in plastic containers of 5 kg and 20 kg, in drums of 290 kg and in tanks of 1400 kg.

Shelf-life - Storage

18 months from production date if stored in original, unopened packaging, in temperature between +5°C and +35°C. Protect from direct sun exposure and frost.

Remarks

The final result is possible to differ depending on the type of cement and the temperature of concrete and environment.

ADINOL-RAPID 2H

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ADINOL-RAPID 2H

Hardening accelerating concrete admixture
EN934-2: T7

Max chloride content: chloride free

Max alkali content: ≤ 4,0 % by weight

Corrosive behaviour [1]: -

Dangerous substances: none

[1]:Only required when placed in the market of a member state which regulates these items

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AQUAMAT-ADMIX

Crystalline waterproofing admixture for concrete

Description

AQUAMAT ADMIX is an admixture in powder form.
It consists of cement and special active chemicals, which react with moisture and free lime in fresh concrete, creating insoluble crystalline compounds. These crystals seal the capillaries and minor shrinkage cracks inside concrete and thus they offer protection against penetration of water under strong hydrostatic pressure.

It offers the following advantages:

- Water impermeability against water pressure from either the positive or the negative surface of concrete.
- Reduces significantly the capillary absorption of water.
- It remains permanently active for the life of the structure and therefore, it continuously protects the construction from any water penetration.
- It is capable of sealing hairline cracks up to 0,4 mm width, even if they appear after the setting of concrete.
- It does not influence the vapour permeability of the concrete element.
- It protects the steel reinforcement of concrete from corrosion.
- It has no air entraining action.
- It is free of chlorides and other corrosive ingredients.
- It is compatible with all kinds of Portland cement.

Fields of application

AQUAMAT ADMIX is suitable for any type of concrete element that is constantly or temporarily in contact with water, such as foundations, basements, water tanks, tunnels, canals, sewage and wastes treatment tanks, swimming pools etc.

Technical data

Form:	powder
Color:	grey
Density of dry mortar:	0,97 ± 0,1 kg/l

Directions for use

As AQUAMAT ADMIX is in powder form, it should never be added directly to wet concrete. This could cause clumping and the admixture will not be dispersed properly.

1st way: Addition in the aggregates:
AQUAMAT ADMIX is added first into the aggregates and thoroughly mixed for 2-3 minutes with about 50% of the required mixing water, before cement and the residual water are added. The concrete should be mixed for at least 2-3 minutes to ensure good distribution of AQUAMAT ADMIX in the concrete mass.

2nd way: Addition in the concrete truck mixer:
First AQUAMAT ADMIX is mixed separately with water in the following ratio: 20 kg of AQUAMAT ADMIX with 25,5 l of water, in order to form a slurry. Then this slurry is added in the wet concrete in a dosage of 1,80 - 2,20 kg of slurry per 100 kg of cement. Further mixing must take place for at least 5 minutes in order to achieve a homogenous mix.

Dosage

0,8-1,0 kg per 100 kg of cement.

Packaging

20 kg paper bags.

Shelf-life - Storage

12 months from production date if stored in original, unopened packaging, in places protected from moisture and frost.

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building quality

AQUAMAT-ADMIX

Remarks

- AQUAMAT ADMIX might affect the setting time and the final strength of concrete. Both of these effects depend on the concrete mix design. Trial mixes should be carried out in order to determine the actual effect in concrete.
- AQUAMAT ADMIX contains cement and reacts as alkaline with water, so it is classified as irritant.
- In the case of addition of AQUAMAT ADMIX in the form of slurry into the wet concrete, the water-cement ratio of concrete is not significantly altered, as except of adding water contained in the slurry, cement is added as well that is contained in AQUAMAT ADMIX.
- Consult the usage risks and safety advice written on the bag.

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TÜV CERT EN ISO 9001

DOMOLIT

Mortar plasticizer - Lime replacement

Description

DOMOLIT is a liquid admixture, used to replace lime to lime-cement mortars, offering to cement mortars all the advantages and eliminating the disadvantages of lime:

- Increases adhesion of fresh mixture to the substrate.
- Offers long working time before setting.
- Improves plasticity by its air entraining action.
- Increases cohesion of mortar, eliminates "blisters", plaster does not "hang".
- Increases masonry wall strength.
- Significantly reduces cost of mortar.
- Eliminates lime storage problems.
- Does not contain chlorides and other corrosive ingredients.

Certified with the CE marking as air entraining/plasticizing admixture for masonry mortar according to EN 934-3:T2, certificate number: 0906-CPD-02412007.

Fields of application

DOMOLIT is an ideal aid for preparing masonry, paving, plastering or marble mortars, as well as strong layers in general.

Technical data

Color:	darkbrown
Viscosity:	25 mPa·s (Brookfield, +23°C)
Density:	1,01 – 1,03 kg/lit

Directions for use

DOMOLIT is added into the mixing water of mortars. Due to its plasticizing effect, less mixing water is required.

Dosage

- **Masonry or paving mortars:**

50 g DOMOLIT per 25 kg of cement.

Preparation of 1 m^3 mortar requires:

Cement:	225 kg
Sand:	0,90 m^3
DOMOLIT:	450 g

- **Plastering mortars:**

75 g DOMOLIT per 25 kg of cement.

Preparation of 1 m^3 mortar requires:

Cement:	250 kg
Sand:	0,84 m^3
DOMOLIT:	750 g

Packaging

DOMOLIT is supplied in plastic containers of 1 kg, 5 kg, 20 kg and in drums of 220 kg.

Shelf-life - Storage

18 months from production date if stored in original, unopened packaging, in temperature between +5°C and +35°C. Protect from direct sun exposure and frost.

Remarks

- DOMOLIT offers better workability when mixed with fine-particle sand.
- Excessive dosage (more than 0,4% by cement weight) will decrease mortar strength.

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Air entraining/plasticizing admixture
for masonry mortar

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DOMOLIT-TR

Transparent mortar plasticizer - Lime replacement

Description

DOMOLIT-TR is a liquid admixture, used to replace lime to lime-cement mortars, offering to cement mortars all the advantages and eliminating the disadvantages of lime:

- Increases adhesion of fresh mixture to the substrate.
- Offers long working time before setting.
- Improves plasticity by its air entraining action.
- Increases cohesion of mortar, eliminates “blisters”, plaster does not “hang”.
- Increases masonry wall strength.
- Significantly reduces cost of mortar.
- Eliminates lime storage problems.
- Does not contain chlorides and other corrosive ingredients.

Certified with the CE marking as air entraining/plasticizing admixture for masonry mortar according to EN 934-3:T2, certificate number: 0906-CPD-02412007.

Fields of application

DOMOLIT-TR is an ideal aid for preparing masonry, paving, plastering or marble mortars, as well as strong layers in general.
It is especially suitable for preparing white mortars.

Technical data

Color:	transparent
Viscosity:	25 mPa·s (Brookfield, +23°C)
Density:	0,99 - 1,03 kg/lit

Directions for use

DOMOLIT-TR is added into the mixing water of mortars. Due to its plasticizing effect, less mixing water is required.

Dosage

- **Masonry or paving mortars:**

50 g DOMOLIT-TR per 25 kg of cement.

Dosage

Preparation of 1 m^3 mortar requires:

Cement:	225 kg
Sand:	0,90 m^3
DOMOLIT-TR:	450 g

- **Plastering mortars:**

75 g DOMOLIT-TR per 25 kg of cement.

Preparation of 1 m^3 mortar requires:

Cement:	250 kg
Sand:	0,84 m^3
DOMOLIT-TR:	750 g

Packaging

DOMOLIT-TR is supplied in plastic containers of 1 kg, 5 kg, 20 kg and in drums of 220 kg.

Shelf-life - Storage

18 months from production date if stored in original, unopened packaging, in temperature between +5°C and +35°C. Protect from direct sun exposure and frost.

Remarks

- DOMOLIT-TR offers better workability when mixed with fine-particle sand.
- Excessive dosage (more than 0,4% by cement weight) will decrease mortar strength.

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Air entraining/plasticizing admixture for masonry mortar

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ASOLIT-POWDER

Mortar plasticizer - Lime replacement

Description

ASOLIT-POWDER is a powder mortar which, when added to cement mortars it gives them the workability of lime-cement mortars by replacing lime totally. It provides all the advantages of lime and eliminates all its disadvantages:

- Increases adhesion of fresh mixture to the substrate.
- Offers long working time before setting.
- Due to its air-entraining action it improves plasticity of mortars increasing their workability.
- Provides water impermeability.
- Increases cohesion of mortar, eliminates “blisters”, plaster does not “hang”.
- Increases significantly mortar strength and their resistance to frost.
- Significantly reduces cost of mortar.
- Eliminates lime storage problems.
- Does not contain chlorides and other corrosive ingredients.
- Does not cause cutaneous diseases.

Fields of application

ASOLIT-POWDER is an ideal aid for preparing masonry, paving, plastering and marble (skim coat) mortars, as well as strong coatings or layers in general.

Technical data

Color:	beige
Bulk density:	1,60 kg/lit

Directions for use

ASOLIT-POWDER is initially added into the mixing water and then cement, sand etc. are gradually added under continuous stirring. The mixture is applied as usual by hand or gunite machine.

Dosage

2,0-5,0 kg per mixer batch of half a bag (25 kg) of cement.

Packaging

ASOLIT-POWDER is available in paper bags of 30 kg.

Shelf-life - Storage

18 months from production date if stored in original, unopened packaging, in places protected from moisture and frost.

Remarks

- ASOLIT-POWDER is equally effective in cement mortars containing either manufactured (crushed) or river sand.

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ADINOL-DM

Mortar and non-reinforced concrete waterproofing admixture

Description

ADINOL-DM is a liquid admixture that offers high water resistance to cement or lime-cement mortars and non-reinforced concrete. Improves plasticity and minimizes cavities and segregation. Increases resistance to corrosive agents. Water-impermeability is achieved with the uniform dispersion of active water-repellent agents. Addition of ADINOL-DM helps prevent damages caused by moisture and considerably increases the lifetime of buildings.

Fields of application

ADINOL-DM is used to prepare water-impermeable cement mortars, plasters or concrete. In case it is used for reinforced (load-bearing) concrete, it is only recommended if its addition is evaluated in the concrete mix composition.

Technical data

Color:	dark yellow
Viscosity:	90 mPa·s (Brookfield, +23°C)
Density:	1,03 – 1,04 kg/lit

Directions for use

ADINOL-DM can be added:

- Into the mixing water during the preparation of concrete or mortar.
- Into the prepared mixture, just before use. In this case, uniform dispersion should be achieved by thorough mixing for 4-5 minutes.

Dosage

- **For cement mortars:**
  1 kg per 100 kg of cement.
- **For plastering mortars:**
  1 kg per 100 kg of cement + lime.
- **For concrete:**
  0,8 kg per 100 kg of cement.

Packaging

ADINOL-DM is supplied in plastic containers of 1 kg, 5 kg, 20 kg and in drums of 220 kg.

Shelf-life - Storage

18 months from production date if stored in original, unopened packaging, in temperature between +5°C and +35°C. Protect from direct sun exposure and frost.

Remarks

- Should be thoroughly stirred before use.
- Excessive dosage causes retardation of setting time and decrease of final strength.

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ADIFLEX-B

Elastifying agent

Description

ADIFLEX-B is an elastomeric emulsion, used as an admixture for cementitious brushable sealing slurries, tile adhesives, cement-mortars, water-based paints etc., offering:

- High flexibility.
- Water-impermeability.
- Increased bonding to the surface.

Fields of application

ADIFLEX-B is used for the elastification of:

- Cementitious brushable sealing slurries (e.g. AQUAMAT), when the surface to be sealed shows or is expected to show haircracks.
- Tile adhesives (e.g. Isomat® AK 20), to fix tiles on substrates that suffer from contraction-expansion effects (dimensional changes) or vibration.

ADIFLEX-B may also be used to elastify other cement-mortars.

Technical data

Basis:	acrylic polymer dispersion
Color:	white
Viscosity:	485 mPa·s (Brookfield, +23°C)
Density:	1,03 kg/lit

Directions for use

1. Preparation of substrate
The substrate must be clean, free of grease, oil, dust and as flat as possible. It should also be dampened but without water accumulation. Porous surfaces like aerated concrete, gypsum boards, chip boards etc. should be primed with UNI-PRIMER.

2. Elastification of cementitious brushable sealing slurries

Full elastification of AQUAMAT
The content of 1 bag (25 kg) AQUAMAT is gradually added into 10 kg of ADIFLEX-B, under continuous stirring. Depending on the desired workability, a small quantity of water (approx. 1 kg) may also be needed.

Partial elastification of AQUAMAT
In cases the flexibility required is reduced, 25 kg of AQUAMAT may be mixed with 5 kg of ADIFLEX-B plus a quantity of water (approx. 4 kg), depending on the desired workability.

3. Elastification of tile adhesives

Full elastification of Isomat AK 20
The content of 1 bag (25 kg) of Isomat® AK 20 is added into 10 kg ADIFLEX-B plus 1-2 kg of water under continuous stirring, until a uniform mixture is formed.

Partial elastification of Isomat AK 20
In cases the flexibility required is reduced, 25 kg of Isomat® AK 20 may be mixed with 5 kg ADIFLEX-B plus a quantity of water (approx. 3 kg), depending on the desired workability.

ADIFLEX-B

Packaging

ADIFLEX-B is supplied in plastic containers of 1 kg, 5 kg, 20 kg, buckets of 10 kg and drums of 150 kg.

Shelf-life - Storage

12 months from production date if stored in original, unopened packaging, in temperature between +5°C and +35°C. Protect from direct sun exposure and frost.

Remarks

- The temprature during application should be between +5°C and +30°C.

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ADIPLAST

Polymer latex for multiple improvement of mortars

Description

ADIPLAST is a polymer latex, used as an admixture to significantly improve the properties of mortars in several ways:

- Increases bonding to the substrate.
- Improves elasticity.
- Increases impressively abrasion resistance.
- Makes mortars water impermeable.
- Eliminates shrinkage and prevents resulting cracks.
- Improves plasticity, water retention and workability of fresh mixtures.
- Improves resistance to chemicals and petroleum products.

Fields of application

- Bonding layer between old and new concrete or mortar.
- Repair mortars and thin layers.
- Wear-resistant, dust-proof floor screeds.
- Waterproof cement mortars, resistant to water pressure.
- Plasters with high strength and water impermeability.
- Mortars with resistance to chemicals and petroleum products.
- Adhesive for insulation boards, tiles or other coverings.
- Additive for improvement of wear and weather resistance of water paints (lime emulsions).
- Grouting mortars for natural stones.
- Mortars for forming grooves across wall-floor joints.
- Protection of green (fresh) concrete against premature dehydration.

Technical data

Color:	white
Viscosity:	500 mPa·s
Density:	0,96 kg/lit

Directions for use

1. Preparation of substrate
The substrate must be clean and free of dust, loose materials, oil, grease or old plaster, paint, cement residues etc. It should be thoroughly dampened but without water accumulation.

2. Application
ADIPLAST latex is added into the mixing water of mortars. The quantity of ADIPLAST depends on the desired effect and technical requirements (see application examples).
ADIPLAST solution should be added into the mixer first, before cement and aggregates, to avoid lumps.
Working time of mortars with ADIPLAST is slightly increased.

Packaging

ADIPLAST is supplied in plastic containers of 1 kg, 5 kg, 20 kg and in drums of 150 kg.

Shelf-life - Storage

18 months from production date if stored in original, unopened packaging, in temperature between +5°C and +35°C. Protect from direct sun exposure and frost.

Remarks

ADIPLAST should be thoroughly stirred before use.

Application examples

(All proportions in **parts by volume**)

- **Bonding layers**

a) Bonding layer for horizontal or sloping surfaces

The properly prepared surface is brushed in a thickness of about 2 mm, with a slurry consisting of:

Dry mortar : cement to sand = 1 : 1
Mixing liquid : ADIPLAST to water = 1 : 1
Dry mortar : mixing liquid = 2 : 1

ADIPLAST

New concrete or mortar application should take place up to 15-20 minutes after the bonding layer application, not later (fresh on fresh).

Consumption: 0,25 kg ADIPLAST/m^2/mm.

Applications: Work joints, bonding bridge between old and new concrete or mortar.

b) Bonding spatterdash (rough cast) for vertical surfaces

A mixture for spatterdash is prepared with:

Dry mortar : cement to sand = 1 : 1
Mixing liquid : ADIPLAST to water = 1 : 1
Dry mortar : mixing liquid = 4 : 1

The spatterdash is applied in the usual way. **After hardening** (at least 1day) the next layer may be applied

Consumption: 0,16 kg ADIPLAST/m^2/mm.

Applications: Bonding of plasters and mortars to smooth vertical surfaces, thermal insulation boards etc.

- **Patching mortars and thin layers**

A mortar is prepared consisting of:

Dry mortar : cement to sand = 1 : 2 up to 1 : 4
Mixing liquid : ADIPLAST to water = 1 : 2 up to 1 : 4
Dry mortar : mixing liquid = 4 : 1 up to 4,5 : 1

The mortar is applied on the properly prepared substrate. For heavily loaded surfaces or very smooth ones a bonding layer, as described above, should be applied previously.

Consumption: 0,5-1,0 kg ADIPLAST/m^2/cm.

Applications: Concrete repair (cavities, corners, grooves, steps etc), cement mortar repair, thin layers for leveling or sloping etc.

- **Wear-resistant, dust-proof floor screeds**

A mortar is prepared consisting of:

Dry mortar : cement to sand = 1 : 2 up to 1 : 4
Mixing liquid : ADIPLAST to water = 1:2 up to 1:4
Dry mortar : mixing liquid = 4 : 1 up to 4,5 : 1

- The mortar is applied on the properly prepared substrate in layers 10-30 mm thick. Subsequently, it is compacted and mechanically smoothed.

Consumption: 0,5-1,0 kg ADIPLAST/m^2/cm.

Applications: Dust-proof industrial floors, floors in laboratories, warehouses, garages etc.

- **Waterproof, water-pressure resistant cement mortars**

A bonding layer (as above) is followed by 2 layers of trowelled mortar (dry pack), consisting of:

Dry mortar : cement to sand = 1 : 2 up to 1 : 3
Mixing liquid : ADIPLAST to water = 1 : 2 up to 1 : 3
Dry mortar : mixing liquid = 4 : 1 up to 4,5 : 1

Consumption: 0,7-1,0 kg ADIPLAST/m^2/cm.

Applications: Waterproofing of tanks and basements even from the interior (negative pressure) side.

- **Weather-resistant, water-impermeable plasters**

A plaster is prepared consisting of:

Dry mortar : Binding material (cement + lime) to sand = 1 : 2,5 up to 1 : 4
Mixing liquid : ADIPLAST to water = 1 : 4 up to 1 : 5
Dry mortar : mixing liquid = 4,5 : 1 up to 5,5 : 1

In case that plaster is applied on thermal insulation boards, a bonding splatterdash layer, as described above, should be previously applied.

Consumption: 0,4-0,5 kg ADIPLAST/m^2/cm.

Applications: Protective plasters for adverse weather conditions.

- **Mortars resistant to chemicals and petroleum products**

A mortar is prepared consisting of:

ADIPLAST

Dry mortar : cement to sand = 1 : 2 up to 1 : 4
Mixing liquid : ADIPLAST to water = 2 : 1
Dry mortar : mixing liquid = 4 : 1 up to 4,5 : 1

Consumption: 1,7-2,0 kg ADIPLAST/m^2/cm.

Applications: Cement mortar rendering or screeding for sewage tanks or wells, petroleum tanks, boiler room floors etc.

- **Adhesive mortars**

A mortar is prepared consisting of:

Dry mortar : cement to sand = 1 : 2 up to 1 : 3
Mixing liquid : ADIPLAST to water = 1 : 2
Dry mortar : mixing liquid = 5 : 1

Consumption: 0,8 kg ADIPLAST/m^2/cm.

Applications: Fixing of thermal insulation boards, tiles etc.

- **Improvement of water paints (lime emulsions)**

Approximately 1 to 2 kg of ADIPLAST are added per 10 liters of ready-to-use water paint.

Applications: An economic solution for painting industrial rooms, warehouses, stock farm buildings and exterior surfaces in general.

- **Grouting mortars for natural stones**

A mortar is prepared consisting of:
Dry mortar : cement to sand = 1 : 2 up to 1 : 3
Mixing liquid : ADIPLAST to water = 1 : 2 up to 1 : 4
Dry mortar : mixing liquid = 4 : 1 up to 4,5 : 1

Consumption:
6-10 g ADIPLAST/m, for joints of 1 cm width and 1 cm depth.

Applications: Grouting of exposed brickwork, cement-tiles etc.

- **Mortars for groove formation across wall-floor joints**

A mortar is prepared consisting of:
Dry mortar : cement to sand = 1 : 2 up to 1 : 4
Mixing liquid : ADIPLAST to water = 1 : 2 up to 1 : 4
Dry mortar : Mixing liquid = 4 : 1 up to 4,5 : 1

Consumption: 0,16-0,26 kg ADIPLAST/m of groove length, having a triangle cross-section with 5-6 cm sides.

Applications: Forming of grooves across wall-floor joints.

- **Protection of green (fresh) concrete against premature dehydration.**

A solution consisting of ADIPLAST to water = 1:1, is sprayed or brushed on the surface of green concrete, which should be free of water accumulation, immediately after setting has started.

Consumption: 0,05-0,07 kg ADIPLAST/m^2.

Volatile organic compounds (VOCs)

According to the Directive 2004/42/CE (Annex II, table A), the maximum allowed VOC content for the product subcategory h, type WB is 30g/l (2010) for the ready to use product.
The ready to use product ADIPLAST contains max <30 g/l VOC.

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TÜV CERT EN ISO 9001

LATEX

Latex admixture - Bonding agent

Description

LATEX is a polymer latex, used as an admixture to significantly improve the properties of mortars in several ways:

- Increases bonding to the substrate.
- Improves elasticity.
- Increases abrasion resistance.
- Makes mortars water impermeable.
- Eliminates shrinkage and prevents resulting cracks.
- Improves plasticity, water retention and workability of fresh mixtures.
- Improves resistance to chemicals and petroleum products.

Fields of application

- Bonding layer between old and new concrete or mortar.
- Repair mortars and thin layers.
- Wear-resistant, dust-proof floor screeds.
- Waterproof cement mortars, resistant to water pressure.
- Plasters with high strength and water impermeability.
- Mortars with resistance to chemicals and petroleum products.
- Grouting mortars for natural stones.
- Mortars for forming grooves across wall-floor joints.

Technical data

Color:	white
Viscosity:	100 mPa s
Density:	1,00 – 1,01 kg/lit

Directions for use

1. Preparation of substrate
The substrate must be clean and free of dust, loose materials, oil, grease or old plaster, paint, cement residues etc. It should be thoroughly dampened but without water accumulation.

2. Application
LATEX is added into the mixing water of mortars. The mixing ratio of LATEX to water could be from 1:1 up to 1:5, depending on the desired effect and the technical requirements. LATEX solution should be added into the mixer first, before cement and aggregates, to avoid lumps.

Packaging

LATEX is supplied in plastic containers of 1 kg, 5 kg, 20 kg and in drums of 150 kg.

Shelf-life - Storage

18 months from production date if stored in original, unopened packaging, in temperature between +5°C and +35°C. Protect from direct sun exposure and frost.

Remarks

- LATEX should be thoroughly stirred before use.
- Working time of mortars with LATEX is slightly increased.

Volatile organic compounds (VOCs)

According to the Directive 2004/42/CE (Annex II, table A), the maximum allowed VOC content for the product subcategory h, type WB is 30g/l (2010) for the ready to use product. The ready to use product LATEX contains max <30 g/l VOC.

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TÜV CERT EN ISO 9001

DS-99

Additive for tile adhesives and joint grouts

Description

DS-99 is a polymer-based admixture for tile adhesives and grouts, offering significant improvements of their properties:

- Increases bonding to the substrate.
- Increases flexural and compressive strength.
- Improves flexibility.
- Increases impressively abrasion resistance.
- Offers water impermeability.
- Improves chemical resistance.

Fields of application

DS-99 is used as an admixture for tile adhesives and grouts, in cases of high demand for water impermeability, mechanical strength and chemical resistance.

Technical data

Color:	white
Density:	0,99 - 1,01 kg/lit
Application temperature:	between +5°C and +30°C

Directions for use

The mixing water of tile adhesives or grouts is replaced with a mixture of DS-99 and water, in proportions of 1:1 up to 1:2 by volume.

Packaging

DS-99 is supplied in plastic containers of 1 kg, 5 kg and 20 kg.

Shelf-life - Storage

12 months from production date if stored in original, unopened packaging, in temperature between +5°C and +35°C. Protect from direct sun exposure and frost.

Remarks

- Should be thoroughly stirred before use.

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TÜV CERT EN ISO 9001

SPLIT-2000

Formwork deshuttering agent

Description

SPLIT-2000 is a deshuttering coating for all types of wood or metal formworks, acting in a physical way by forming an adhesion-preventing film on the concrete surface, as well as in a chemical way by reacting with the concrete surface. It offers the following advantages:

- A strong anti-adhesive action.
- No air-bubbles are formed on the concrete surface.
- Avoidance of oil or grease residues on the concrete surface.
- Perfect bonding of plaster or paint on the concrete surface.
- Low-cost, due to low consumption.
- Protection of metal formworks from corrosion and maintenance of wood formworks.

Fields of application

SPLIT-2000 is used as an anti-adhesive coat on any type of wood or metal formwork. It is ideal to achieve smooth surfaces of exposed concrete.

Technical data

Color:	dark yellow
Density:	0,86 kg/lit

Directions for use

SPLIT-2000 should be thoroughly stirred before use. It is applied without any dilution, by brush or spray, on a clean and dry formwork surface, wood or metal, in one layer as thin as possible.

Consumption

Approx. 60 ml/m^2, according to the type and absorptivity of the coated surface.

Packaging

SPLIT-2000 is supplied in plastic containers of 20 lit and drums of 140 lit.

Shelf-life - Storage

18 months from production date if stored in original, unopened packaging, in temperature between +5^{o}C and +35^{o}C. Protect from direct sun exposure and frost.

The technical information and instructions supplied in this datasheet are based on the knowledge and experience of the department of Research and Development of our company and on results from long-term applications of the product in practice. The recommendations and suggestions referring to the use of the product are provided without guarantee, since site conditions during the applications are beyond the control of our company. Therefore the user is responsible for confirming that the chosen product is suitable for the envisaged application. The present edition of this technical data sheet automatically cancels any previous one concerning the same product.

TÜV CERT EN ISO 9001

ISOCURE

Concreting curing agent

Description

ISOCURE is a paraffin-based water emulsion that is used for protecting fresh concrete from the quick evaporation of mixing water.

- Reduces the probability of hair cracking.
- Reduces the setting shrinkage of concrete.
- Ensures the reaching of prescribed strengths.
- Decreases the surface-dusting effect after the setting of concrete.
- Increases the resistance to frost.

Fields of application

ISOCURE is used as anti-vaporous curing agent for fresh concrete. Particularly suitable for applying on large surfaces of exposed concrete such as industrial floorings, parking areas, concrete slabs etc.

Technical data

Form:	paraffin-based water emulsion
Color:	white
pH:	8,5 ± 1,0
Density:	1,00 ± 0,05 kg/lit
Viscosity:	30-50 mPa.s at +30°C

Directions for use

ISOCURE should be thoroughly stirred before use, and be applied by spray or by brush in a uniform thin layer.
It is applied on the fresh-leveled concrete surface, after evaporation of the skin-deep water (after 30-120 min), and on casting concrete, immediately after the releasing of the formworks.

Consumption

150-200 g/m², depending on conditions during application.

Packaging

ISOCURE is supplied in plastic containers of 20 kg.

Shelf-life - Storage

12 months from production date if stored in original, unopened packaging, in temperature between +5°C and +35°C. Protect from direct sun exposure and frost.

Remarks

In case of the further laying of the concrete surface, the material must be removed by water blasting.

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TÜV CERT EN ISO 9001

ISOCURE-A

Acrylic based concrete curing agent

Description

Water-based, acrylic emulsion for protecting fresh concrete from quick evaporation of mixing water. It forms to the surface a membrane which:

- Reduces any possible drying shrinkage cracks.
- Reduces the setting shrinkage of concrete.
- Ensures the optimum strength development.
- Decreases the surface-dusting effect after the setting of concrete.
- Increases the resistance to frost.
- In case of subsequent layers on the concrete surface (e.g cement screed, plaster), there is no needing of removing ISOCURE-A by water blasting, scrubbing etc.
- Eliminates the need for water curing or the covering with wet cloths.

Fields of application

ISOCURE-A is used as anti-vaporous curing agent for fresh concrete. Particularly suitable for applying on large surfaces of exposed concrete such as industrial floorings, parking areas, concrete slabs etc. It is also suitable for vertical surfaces.

Technical data

Form:	water based emulsion
Color:	white
pH:	7,0
Density:	1,00 kg/lit

Directions for use

ISOCURE-A should be thoroughly stirred before use and should be applied with spray in a uniform thin layer.
It is applied on the fresh-leveled concrete surface, after evaporation of the skin-deep water (after 30-120 min). In case of formed concrete, it is necessary the dampening of surface after the removal of formwork, then follows the spraying with ISOCURE-A.

Consumption

150-200 g/m², depending on conditions during application.

Packaging

ISOCURE-A is supplied in plastic containers of 20 kg.

Shelf-life - Storage

12 months from production date if stored in original, unopened packaging, in temperature between +5°C and +35°C. Protect from direct sun exposure and frost.

Volatile organic compounds (VOCs)

According to the Directive 2004/42/CE (Annex II, table A), the maximum allowed VOC content for the product subcategory g, type WB is 30g/l (2010) for the ready to use product.
The ready to use product ISOCURE-A contains max <30 g/l VOC.

The technical information and instructions supplied in this datasheet are based on the knowledge and experience of the department of Research and Development of our company and on results from long-term applications of the product in practice. The recommendations and suggestions referring to the use of the product are provided without guarantee, since site conditions during the applications are beyond the control of our company. Therefore the user is responsible for confirming that the chosen product is suitable for the envisaged application. The present edition of this technical data sheet automatically cancels any previous one concerning the same product.

TÜV CERT EN ISO 9001

POLYPROPYLENE FIBERS

Polypropylene fibers 12 mm

Description

Synthetic fibers of modified polypropylene for use in fiber reinforced concrete and mortars. Polypropylene fibers reduce the formation of plastic shrinkage cracks on concrete and increase the impact and shatter resistance. Synthetic fibers also increase the abrasion resistance in concrete floors and reduce the bleeding. Moreover, they improve the elasticity and the cohesiveness of mortars and screeds during placing.

Fields of application

Polypropylene fibers are specifically designed for use in cases where cracks are created due to plastic shrinkage or deformations, e.g., large concrete slabs, prefabricated concrete elements, floors with in-floor heating, etc. They are used where cohesiveness of screeds or concrete is required during the placing, e.g., inclined slabs etc. Polypropylene fibers are also used in shotcrete (gunite) applications and they increase the compaction and density of shotcrete.

Technical data

Material:	modified polypropylene
Fiber color:	white
Fiber diameter:	20-40μm
Fiber length:	12 mm
Density:	0,91 gr/cm^3
Absorbency:	none
Modulus of elasticity:	≥ 5000Mpa
Tensile strength:	≥ 500Mpa
Extreme limit extension rate:	20 ± 5%

Directions for use

Polypropylene fibers are added directly to the concrete or mortar mixing system during the batching of the ingredients.

Consumption

600-1200 gr/m^3 of concrete or cement mortar.

Packaging

- Dispersable paper bag 900 gr.
- Plastic bag 600 gr.

Storage

At least 5 years from the production date on closed packaging, stored in dry warehouse.

Remarks

Polypropylene fibers do not replace concrete static reinforcement.

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TÜV CERT EN ISO 9001

3. TILE ADHESIVES & GROUTS

ISOMAT AK 9

Cementitious tile adhesive

Description

ISOMAT AK 9 is a cement-based tile adhesive. It provides high initial and final adhesive strength and moisture resistance.
It is classified as type C1 adhesive according to EN 12004.

Fields of application

ISOMAT AK 9 is suitable for fixing ceramic tiles on walls or floors on surfaces made of concrete, brickwork, plaster etc., indoors or outdoors.

Technical data

Form:	cementitious mortar
Colors:	grey, white
Water demand:	6,00 l/25 kg bag
Application temperature:	from +5°C to +35°C
Application thickness:	up to 10 mm
Pot life:	at least 6 h
Open time:	at least 20 min
Minor adjustments open time:	at least 30 min
Pointing on walls:	after 3-8 h
Pointing on floors:	after 24 h
Adhesive strength after:	
• 28 days:	≥ 1,00 N/mm^2
• heating in +70ºC:	≥ 0,50 N/mm^2
• immersion in water:	≥ 0,50 N/mm^2
• 25 freeze-thaw cycles:	≥ 0,50 N/mm^2
Temperature resistance:	from -15°C to +60°C

All measurements were conducted according to EN 12004.

Directions for use

1. Substrate
The surface to be overlaid must be clean, free of dust, grease, paint, loose material etc. Dampening of the substrate before application is recommended.

2. Application
ISOMAT AK 9 is gradually added into water under continuous stirring, until a uniform paste is formed. A low revolution mixer is recommended for mixing.
The mixture should be left about 10 minutes to settle and should be stirred slightly again. The tile adhesive should be spread (“combed”) on the substrate using a notched trowel, in order to be uniformly applied on the whole surface. The tiles should be fixed by pressing them in the desired position.
The applied mixture must be covered with tiles within 20 minutes in order to avoid “skin” formation, i.e. before the adhesive film starts setting.

Elastification

For tiling on unstable substrates subject to vibrations or contraction-expansion effects, such as gypsum boards, chipboards, floors with in-floor heating, terraces, balconies etc. it is necessary that the tile adhesive be elastified with the addition of 5-10 kg of ADIFLEX-B to 25 kg of ISOMAT AK 9 plus a quantity of water, depending on the desired workability.

Consumption

1,5-4,0 kg/m^2, depending on the trowel's notch size and the nature of the substrate.

ISOMAT AK 9

Packaging

ISOMAT AK 9 is supplied in paper bags of 25 kg.

Shelf-life - Storage

12 months from production date if stored in original, unopened packaging, in places protected from moisture and frost.

Remarks

- ISOMAT AK 9 contains cement and reacts as alkaline with moisture, so it is classified as irritant.
- Very porous surfaces such as aerated concrete, gypsum boards, chipboards etc. must be primed first with UNI-PRIMER acrylic primer.
- Consult usage risks and safety advice written on the bag.

CE

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ISOMAT S.A.
17th km Thessaloniki - Ag. Athanasios,
P.O. BOX 1043, 570 03 Ag. Athanasios, Greece

EN 12004

Normal setting cementitious adhesive for tiling

- Reaction to fire	Class $A1/A1_{fl}$
- Initial tensile adhesion strength	$\geq 0,5\ N/mm^2$
- Tensile adhesion strength after heat ageing	$\geq 0,5\ N/mm^2$
- Tensile adhesion strength after water immersion	$\geq 0,5\ N/mm^2$
- Tensile adhesion strength after freeze thaw cycles	$\geq 0,5\ N/mm^2$

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ISOMAT AK 10

Cementitious tile adhesive with no vertical slip

Description

ISOMAT AK 10 is a cement-based tile adhesive. It provides high initial and final adhesive strength and moisture resistance. It is qualified as absolutely non-slip (zero slipping of the tile). It is classified as type C1 T adhesive according to EN 12004.

Fields of application

ISOMAT AK 10 is suitable for fixing ceramic tiles on walls or floors on surfaces made of concrete, brickwork, plaster etc., indoors or outdoors.

Technical data

Form:	cementitious mortar
Colors:	grey, white
Water demand:	6,75 l/25 kg bag
Application temperature:	from +5°C to +35°C
Application thickness:	up to 10 mm
Pot life:	at least 6 h
Open time:	at least 20 min
Minor adjustments open time:	at least 30 min
Slip:	≤ 0,5 mm
Pointing on walls:	after 3-8 h
Pointing on floors:	after 24 h
Adhesive strength after:	
• 28 days:	≥ 1,10 N/mm^2
• heating in +70ºC:	≥ 0,50 N/mm^2
• immersion in water:	≥ 0,65 N/mm^2
• 25 freeze-thaw cycles:	≥ 0,50 N/mm^2
Temperature resistance:	from -15°C to +60°C

All measurements were conducted according to EN 12004.

Directions for use

1. Substrate
The surface to be overlaid must be clean, free of dust, grease, paint, loose material etc. Dampening of the substrate before application is recommended.

2. Application
ISOMAT AK 10 is gradually added into water under continuous stirring, until a uniform paste is formed. A low revolution mixer is recommended for mixing.
The mixture should be left about 10 minutes to settle and should be stirred slightly again. The tile adhesive should be spread (“combed”) on the substrate using a notched trowel, in order to be uniformly applied on the whole surface. The tiles should be fixed by pressing them in the desired position.
The applied mixture must be covered with tiles within 20 minutes in order to avoid “skin” formation, i.e. before the adhesive film starts setting.

Elastification

For tiling on unstable substrates subject to vibrations or contraction-expansion effects, such as gypsum boards, chipboards, in-floor heating floors, terraces, balconies etc. it is necessary that the tile adhesive be elastified with the addition of 5-10 kg of ADIFLEX-B to 25 kg of ISOMAT AK 10 plus a quantity of water depending on the desired workability.

Consumption

1,5-4,0 kg/m^2, depending on the trowel's notch size and the nature of the substrate.

ISOMAT AK 10

Packaging

ISOMAT AK 10 is supplied in paper bags of 25 kg and plastic bags of 5 kg.

Shelf-life - Storage

- Paper bags of 25 kg:
  12 months from production date
- Plastic bags of 5 kg:
  18 months from production date

All of the above are in effect if the product is stored in original unopened packaging, in places protected from moisture and frost

Remarks

- ISOMAT AK 10 contains cement and reacts as alkaline with moisture, so it is classified as irritant.
- Very porous surfaces such as aerated concrete, gypsum boards, chipboards etc. must be primed first with UNI-PRIMER acrylic primer.
- Consult usage risks and safety advice written on the bag.

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ISOMAT S.A.
17th km Thessaloniki - Ag. Athanasios,
P.O. BOX 1043, 570 03 Ag. Athanasios, Greece

EN 12004

Normal setting, cementitious adhesive for tiling, with reduced slip

- Reaction to fire	Class $A1/A1_{fl}$
- Initial tensile adhesion strength	$\geq 0,5$ N/mm^2
- Tensile adhesion strength after heat ageing	$\geq 0,5$ N/mm^2
- Tensile adhesion strength after water immersion	$\geq 0,5$ N/mm^2
- Tensile adhesion strength after freeze thaw cycles	$\geq 0,5$ N/mm^2

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ISOMAT AK 11

High performance, polymer-modified adhesive, for ceramic and porcelain tiles

Description

ISOMAT AK 11 is a polymer-modified, cement-based tile adhesive. It provides high initial and final adhesive strength and resistance to moisture.
It is classified as type C2 E adhesive according to EN 12004.

Fields of application

ISOMAT AK 11 is suitable for fixing granite tiles and generally absorptive or non-absorptive wall or floor tiles on various substrates such as concrete, brickwork, plaster etc. Suitable for indoor or outdoor use.

Technical data

Form:	cementitious mortar
Colors:	grey, white
Water demand:	6,75 l/25 kg bag
Application temperature:	from +5°C to +35°C
Application thickness:	up to 10 mm
Pot life:	at least 6 h
Open time:	at least 30 min
Minor adjustments open time:	at least 30 min
Pointing on walls:	after 3-8 h
Pointing on floors:	after 24 h
Adhesive strength after:	
• 28 days:	≥ 1,20 N/mm^2
• heating in +70ºC:	≥ 1,00 N/mm^2
• immersion in water:	≥ 1,00 N/mm^2
• 25 freeze-thaw cycles:	≥ 1,00 N/mm^2

Temperature resistance: from -30°C to +90°C

All measurements were conducted according to EN 12004.

Directions for use

1. Substrate
The surface to be overlaid must be clean, free of dust, grease, paint, loose material etc. Dampening of the substrate before application is recommended.

2. Application
ISOMAT AK 11 is gradually added into water under continuous stirring, until a uniform paste is formed. A low revolution mixer is recommended for mixing.
The mixture should be left about 10 minutes to settle and should be stirred slightly again. The tile adhesive should be spread (“combed”) on the substrate using a notched trowel, in order to be uniformly applied on the whole surface. The tiles should be fixed by pressing them in the desired position.
The applied mixture must be covered with tiles within 30 minutes in order to avoid “skin” formation, i.e. before the adhesive film starts setting.

Elastification

For tiling on unstable substrates subject to vibrations or contraction-expansion effects, such as gypsum boards, chipboards, in-floor heating floors, terraces, balconies etc. it is necessary that the tile adhesive be elastified with the addition of 5-10 kg of ADIFLEX-B to 25 kg of ISOMAT AK 11 plus a quantity of water depending on the desired workability.

Consumption

1,5-4,0 kg/m^2, depending on the trowel's notch size and the nature of the substrate.

ISOMAT AK 11

Packaging

ISOMAT AK 11 is supplied in paper bags of 25 kg.

Shelf-life - Storage

12 months from production date if stored in original, unopened packaging, in places protected from moisture and frost.

Remarks

- ISOMAT AK 11 contains cement and reacts as alkaline with moisture, so it is classified as irritant.
- Very porous surfaces such as aerated concrete, gypsum boards, chipboards etc. must be primed first with UNI-PRIMER acrylic primer.
- Consult usage risks and safety advice written on the bag.

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ISOMAT S.A.
17th km Thessaloniki - Ag. Athanasios,
P.O. BOX 1043, 570 03 Ag. Athanasios, Greece

EN 12004

Improved cementitious adhesive for tiling, with extended open time

- Reaction to fire	Class $A1/A1_{fl}$
- Initial tensile adhesion strength	≥ 1 N/mm^2
- Tensile adhesion strength after heat ageing	≥ 1 N/mm^2
- Tensile adhesion strength after water immersion	≥ 1 N/mm^2
- Tensile adhesion strength after freeze thaw cycles	≥ 1 N/mm^2

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ISOMAT AK 12

High performance, polymer-modified adhesive for ceramic and porcelain tiles, on critical substrates

Description

ISOMAT AK 12 is a high quality, polymer-modified, cement-based tile adhesive. It provides high initial and final adhesive strength and resistance to moisture. It is qualified as absolutely non-slip (zero slipping of the tile). It is classified as type C2 TE adhesive according to EN 12004.

Fields of application

ISOMAT AK 12 is suitable for fixing granite tiles and generally absorptive or non-absorptive wall or floor tiles on various substrates and especially where high adhesion and resistance to moisture are required. Suitable for indoor or outdoor use.

Technical data

Form:	cementitious mortar
Colors:	grey, white
Water demand:	7,50 l/25 kg bag
Application temperature:	from +5°C to +35°C
Application thickness:	up to 10 mm
Pot life:	at least 6 h
Open time:	at least 30 min
Minor adjustments open time:	at least 30 min
Slip:	≤ 0,5 mm
Pointing on walls:	after 3-8 h
Pointing on floors:	after 24 h
Adhesive strength after:	
• 28 days:	≥ 1,40 N/mm^2
• heating in +70ºC:	≥ 1,00 N/mm^2
• immersion in water:	≥ 1,00 N/mm^2
• 25 freeze-thaw cycles:	≥ 1,00 N/mm^2
Temperature resistance:	from -30°C to +90°C

All measurements were conducted according to EN 12004.

Directions for use

1. Substrate
The surface to be overlaid must be clean, free of dust, grease, paint, loose material etc. Dampening of the substrate before application is recommended.

2. Application
ISOMAT AK 12 is gradually added into water under continuous stirring, until a uniform paste is formed. A low revolution mixer is recommended for mixing.
The mixture should be left about 10 minutes to settle and should be stirred slightly again. The tile adhesive should be spread ("combed") on the substrate using a notched trowel, in order to be uniformly applied on the whole surface. The tiles should be fixed by pressing them in the desired position.
The applied mixture must be covered with tiles within 30 minutes in order to avoid "skin" formation, i.e. before the adhesive film starts setting.

Elastification

For tiling on unstable substrates subject to vibrations or contraction-expansion effects, such as gypsum boards, chipboards, in-floor heating floors, terraces, balconies etc. it is necessary that the tile adhesive be elastified with the addition of 5-10 kg of ADIFLEX-B to 25 kg of ISOMAT AK 12 plus a quantity of water depending on the desired workability.

ISOMAT AK 12

Consumption

1,5-4,0 kg/m^2, depending on the trowel's notch size and the nature of the substrate.

Packaging

ISOMAT AK 12 is supplied in paper bags of 25 kg.

Shelf-life - Storage

12 months from production date if stored in original, unopened packaging, in places protected from moisture and frost.

Remarks

- ISOMAT AK 12 contains cement and reacts as alkaline with moisture, so it is classified as irritant.
- Very porous surfaces such as aerated concrete, gypsum boards, chipboards etc. must be primed first with UNI-PRIMER acrylic primer.
- Consult usage risks and safety advice written on the bag.

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ISOMAT S.A.
17th km Thessaloniki - Ag. Athanasios,
P.O. BOX 1043, 570 03 Ag. Athanasios, Greece

EN 12004

Improved cementitious adhesive for tiling, with reduced slip and extended open time

- Reaction to fire	Class A1/A1$_{fl}$
- Initial tensile adhesion strength	≥ 1 N/mm^2
- Tensile adhesion strength after heat ageing	≥ 1 N/mm^2
- Tensile adhesion strength after water immersion	≥ 1 N/mm^2
- Tensile adhesion strength after freeze thaw cycles	≥ 1 N/mm^2

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ISOMAT AK 20

High performance, flexible adhesive for ceramic and porcelain tiles, on critical substrates

Description

ISOMAT AK 20 is a high quality, polymer-modified, cement-based tile adhesive. It provides high initial and final adhesive strength, resistance to moisture and elasticity. It is qualified as absolutely non-slip (zero slipping of the tile) and possesses increased open time. It is classified as type C2 TE S1 adhesive according to EN 12004 and EN 12002.

Fields of application

ISOMAT AK 20 is suitable for fixing absorptive or non-absorptive tiles (e.g. “gres porcelanato”), natural stone, decorative bricks, large tiles etc. on walls or floors on various substrates, especially where high adhesion, elasticity and moisture resistance are required (e.g. old tile layers, floors with in-floor heating etc.). Suitable for indoor or outdoor use.

Technical data

Form:	cementitious mortar
Colors:	grey, white
Water demand:	7,75 l/25 kg bag
Application temperature:	from +5°C to +35°C
Application thickness:	up to 15 mm
Pot life:	at least 6 h
Open time:	at least 30 min
Minor adjustments open time:	at least 30 min
Slip:	≤ 0,5 mm
Pointing on walls:	after 3-8 h
Pointing on floors:	after 24 h

Adhesive strength after:

• 28 days:	≥ 1,75 N/mm^2
• heating in +70ºC:	≥ 1,50 N/mm^2
• immersion in water:	≥ 1,30 N/mm^2
• 25 freeze-thaw cycles:	≥ 1,50 N/mm^2

Temperature resistance:	from -30°C to +90°C
Deformation ability according to EN 12002:	> 2,5 mm

All measurements were conducted according to EN 12004.

Directions for use

1. Substrate
The surface to be overlaid must be clean, free of dust, grease, paint, loose material etc. Dampening of the substrate before application is recommended.

2. Application
ISOMAT AK 20 is gradually added into water under continuous stirring, until a uniform paste is formed. A low revolution mixer is recommended for mixing.
The mixture should be left about 10 minutes to settle and should be stirred slightly again. The tile adhesive should be spread (“combed”) on the substrate using a notched trowel, in order to be uniformly applied on the whole surface. The tiles should be fixed by pressing them in the desired position.
The applied mixture must be covered with tiles within 30 minutes in order to avoid “skin” formation, i.e. before the adhesive film starts setting.

ISOMAT AK 20

Consumption

1,5-4,0 kg/m^2, depending on the trowel's notch size and the nature of the substrate.

Packaging

ISOMAT AK 20 is supplied in paper bags of 15 kg, 25 kg and plastic bags of 5 kg.

Shelf-life - Storage

- Paper bags of 25 kg and 15 kg: 12 months from production date
- Plastic bags of 5 kg: 18 months from production date

All of the above are in effect if the product is stored in original unopened packaging, in places protected from moisture and frost.

Remarks

- ISOMAT AK 20 contains cement and reacts as alkaline with moisture, so it is classified as irritant.
- Very porous surfaces such as aerated concrete, gypsum boards, chipboards etc. must be primed first with UNI-PRIMER acrylic primer.
- Consult usage risks and safety advice written on the bag.

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ISOMAT S.A.
17th km Thessaloniki - Ag. Athanasios,
P.O. BOX 1043, 570 03 Ag. Athanasios, Greece

EN 12004

Improved, deformable, cementitious adhesive for tiling, with extended open time and reduced slip

- Reaction to fire	Class A1/A1$_{fl}$
- Initial tensile adhesion strength	≥ 1 N/mm^2
- Tensile adhesion strength after heat ageing	≥ 1 N/mm^2
- Tensile adhesion strength after water immersion	≥ 1 N/mm^2
- Tensile adhesion strength after freeze thaw cycles	≥ 1 N/mm^2

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ISOMAT AK 22

High performance, flexible adhesive, for all type of tiles on deformable substrates

Description

ISOMAT AK 22 is a high quality, polymer-modified, cement-based tile adhesive. It provides high initial and final adhesive strength, resistance to moisture and elasticity. It is qualified as absolutely non-slip (zero slipping of the tile) and possesses increased open time. It is classified as type C2 TE S1 adhesive according to EN 12004 and EN 12002.

Fields of application

ISOMAT AK 22 is suitable for fixing absorptive or non-absorptive tiles (e.g. “gres porcelanato”), natural stone, decorative bricks, large tiles, glass mosaic tiles etc. on walls or floors on various substrates, especially where particularly high adhesion, elasticity and moisture resistance are required (e.g. old tile layers, floors with in-floor heating, metallic surfaces, swimming pools, gypsum boards etc.). Suitable for indoor or outdoor use.

Technical data

Form:	cementitious mortar
Colors:	grey, white
Water demand:	7,75 l/25 kg bag
Application temperature:	from +5°C to +35°C
Application thickness:	up to 15 mm
Pot life:	at least 6 h
Open time:	at least 30 min
Minor adjustments open time:	at least 30 min
Slip:	≤ 0,5 mm
Pointing on walls:	after 3-8 h
Pointing on floors:	after 24 h

Adhesive strength after:

• 28 days:	≥ 1,90 N/mm^2
• heating in +70ºC:	≥ 1,90 N/mm^2
• immersion in water:	≥ 1,50 N/mm^2
• 25 freeze-thaw cycles:	≥ 1,50 N/mm^2

Temperature resistance: from -30°C to +90°C

Deformation ability according to EN 12002: > 2,5 mm

All measurements were conducted according to EN 12004.

Directions for use

1. Substrate
The surface to be overlaid must be clean, free of dust, grease, paint, loose material etc. Dampening of the substrate before application is recommended.

2. Application
ISOMAT AK 22 is gradually added into water under continuous stirring, until a uniform paste is formed. A low revolution mixer is recommended for mixing.
The mixture should be left about 10 minutes to settle and should be stirred slightly again. The tile adhesive should be spread (“combed”) on the substrate using a notched trowel, in order to be uniformly applied on the whole surface. The tiles should be fixed by pressing them in the desired position.
The applied mixture must be covered with tiles within 30 minutes in order to avoid “skin” formation, i.e. before the adhesive film starts setting.

Consumption

1,5-4,0 kg/m^2, depending on the trowel's notch size and the nature of the substrate.

ISOMAT AK 22

Packaging

ISOMAT AK 22 is supplied in paper bags of 15 kg and 25 kg and plastic bags of 5 kg.

Shelf-life - Storage

- Paper bags of 25 kg and 15 kg: 12 months from production date
- Plastic bags of 5 kg: 18 months from production date

All of the above are in effect if the product is stored in original unopened packaging, in places protected from moisture and frost.

Remarks

- ISOMAT AK 22 contains cement and reacts as alkaline with moisture, so it is classified as irritant.
- Very porous surfaces such as aerated concrete, gypsum boards, chipboards etc. must be primed first with UNI-PRIMER acrylic primer.
- Consult usage risks and safety advice written on the bag.

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ISOMAT S.A.
17th km Thessaloniki - Ag. Athanasios,
P.O. BOX 1043, 570 03 Ag. Athanasios, Greece

EN 12004

Improved, deformable, cementitious adhesive for tiling, with extended open time and reduced slip

- Reaction to fire	Class $A1/A1_{fl}$
- Initial tensile adhesion strength	≥ 1 N/mm^2
- Tensile adhesion strength after heat ageing	≥ 1 N/mm^2
- Tensile adhesion strength after water immersion	≥ 1 N/mm^2
- Tensile adhesion strength after freeze thaw cycles	≥ 1 N/mm^2

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ISOMAT AK 25

High performance, elastic adhesive, for all type of tiles on deformable substrates and vibrative substrates

Description

ISOMAT AK 25 is a high performance tile adhesive with high elasticity. It is cement based enriched with polymers (resins). It provides high adhesive strength and resistance to moisture. It is qualified as absolutely non-slip (zero slipping of the tile) and possesses increased open time.
It is classified as type C2 TE S2 adhesive according to EN 12004 and EN 12002.

Fields of application

ISOMAT AK 25 is suitable for fixing absorptive or non-absorptive tiles (e.g. “gres porcelanato”), natural stone, decorative bricks, large tiles, on wall or floor. Especially appropriate where high adhesion, elasticity and moisture resistance are required for vibrative or dimensionally unstable substrates such as balconies, terraces, underfloor heating systems, metal surfaces, wood floorings, old tile layers etc. Suitable for indoor and outdoor applications.

Technical data

Form:	cementitious mortar
Colors:	white
Water demand:	7,00 l/25 kg bag
Application temperature:	from +5°C to +35°C
Application thickness:	up to 15 mm
Pot life:	at least 6 h
Open time:	at least 30 min
Minor adjustments open time:	at least 30 min
Slip:	≤ 0,5 mm
Pointing on wall:	after 4-8 h
Pointing on floor:	after 24 h

Adhesive strength after:

• 28 days:	≥ 2,00 N/mm^2
• heating in +70ºC:	≥ 2,00 N/mm^2
• immersion in water:	≥ 1,20 N/mm^2
• 25 freeze-thaw cycles:	≥ 1,20 N/mm^2
Temperature resistance:	from -30°C to +90°C
Deformation ability according to EN 12002:	> 5,0 mm

All measurements were conducted according to EN 12004.

Directions for use

1. Substrate
The surface to be overlaid must be clean, free of dust, grease, paint, loose material etc. Dampening of the substrate before application is recommended.

2. Application
ISOMAT AK 25 is gradually added into water under continuous stirring, until a uniform paste is formed. A low revolution mixer is recommended for mixing.
The mixture should be left about 10 minutes to settle and should be stirred slightly again. The tile adhesive should be spread (“combed”) on the substrate using a notched trowel, in order to be uniformly applied on the whole surface. The tiles should be fixed by pressing them in the desired position.
The applied mixture must be covered with tiles within 30 minutes in order to avoid “skin” formation, i.e. before the adhesive film starts setting.

Consumption

1,5-4,0 kg/m^2, depending on the trowel's notch size and the nature of the substrate.

ISOMAT AK 25

Packaging

ISOMAT AK 25 is supplied in paper bags of 25 kg and plastic bags of 5 kg.

Shelf-life - Storage

- Paper bags of 25 kg:
  12 months from production date
- Plastic bags of 5 kg:
  18 months from production date

All of the above are in effect if the product is stored in original unopened packaging, in places protected from moisture and frost.

Remarks

- ISOMAT AK 25 contains cement and reacts as alkaline with moisture, so it is classified as irritant.
- Very porous surfaces such as aerated concrete, gypsum boards, chipboards etc. must be primed first with UNI-PRIMER acrylic primer.
- Consult usage risks and safety advice written on the bag.

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ISOMAT S.A.
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P.O. BOX 1043, 570 03 Ag. Athanasios, Greece

EN 12004

Improved, highly deformable, cementitious adhesive for tiling, with reduced slip and extended open time

- Reaction to fire	Class F
- Initial tensile adhesion strength	≥ 1 N/mm^2
- Tensile adhesion strength after heat ageing	≥ 1 N/mm^2
- Tensile adhesion strength after water immersion	≥ 1 N/mm^2
- Tensile adhesion strength after freeze thaw cycles	≥ 1 N/mm^2

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ISOMAT AK-ECOLIGHT

Light-weight, elastic adhesive, for ceramic and porcelain tiles, on deformable substrates

Description

ISOMAT AK-ECOLIGHT is a light weight, highly elastic, polymer-modified, cement-based tile adhesive. Due to its light weight, the tile fixing is much easier and the required quantity of adhesive is reduced. Due to its special formula it offers sound absorption. It provides high initial and final adhesive strength, resistance to moisture and elasticity. It is qualified as absolutely non-slip (zero slipping of the tile) and possesses increased open time.
It is classified as a C2 TE S2 adhesive according to EN 12004 and EN 12002.

Fields of application

ISOMAT AK-ECOLIGHT is suitable for fixing absorptive or non-absorptive tiles (e.g. “gres porcelanato”), natural stone, decorative bricks, large tiles, etc. on walls or floors on various substrates, especially where particularly high adhesion, elasticity and moisture resistance are required. Suitable for indoor or outdoor use.

Technical data

Form:	cementitious mortar
Color:	dark grey
Water demand:	6,00 l/15 kg bag
Application temperature:	from +5^{o}C to +35^{o}C
Application thickness:	up to 15 mm
Pot life:	at least 6 h
Open time:	at least 30 min
Minor adjustments open time:	at least 30 min
Slip:	≤ 0,5 mm
Pointing on walls:	after 5-8 h
Pointing on floors:	after 24 h
Adhesive strength after:	
• 28 days:	≥ 1,40 N/mm^2
• heating in +70ºC:	≥ 1,30 N/mm^2
• immersion in water:	≥ 1,10 N/mm^2
• 25 freeze-thaw cycles:	≥ 1,20 N/mm^2
Temperature resistance:	from -30^{o}C to +90^{o}C
Deformation ability according to EN 12002:	> 5 mm

All measurements were conducted according to EN 12004.

Directions for use

1. Substrate
The surface to be overlaid must be clean, free of dust, grease, paint, loose material etc. Dampening of the substrate before application is recommended.

2. Application
ISOMAT AK-ECOLIGHT is gradually added into water under continuous stirring, until a uniform paste is formed. A low revolution mixer is recommended for mixing.
The mixture should be left about 5 minutes to settle and should be stirred slightly again. The tile adhesive should be spread (“combed”) on the substrate using a notched trowel, in order to be uniformly applied on the whole surface. The tiles should be fixed by pressing them in the desired position.
The applied mixture must be covered with tiles within 30 minutes in order to avoid “skin” formation, i.e. before the adhesive film starts setting.

Consumption

1,0-3,0 kg/m^2, depending on the trowel's notch size and the nature of the substrate.

ISOMAT AK-ECOLIGHT

Packaging

ISOMAT AK-ECOLIGHT is supplied in paper bags of 15 kg.

Shelf-life - Storage

12 months from production date if stored in original, unopened packaging, in places protected from moisture and frost.

Remarks

- ISOMAT AK-ECOLIGHT contains cement and reacts as alkaline with moisture, so it is classified as irritant.
- Very porous surfaces such as aerated concrete, gypsum boards, chipboards etc. must be primed first with UNI-PRIMER acrylic primer.
- Consult usage risks and safety advice written on the bag.

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ISOMAT S.A.
17th km Thessaloniki - Ag. Athanasios,
P.O. BOX 1043, 570 03 Ag. Athanasios, Greece

EN 12004

Improved, highly deformable, cementitious adhesive for tiling, with extended open time and reduced slip

- Reaction to fire	Class $A1/A1_{fl}$
- Initial tensile adhesion strength	≥ 1 N/mm^2
- Tensile adhesion strength after heat ageing	≥ 1 N/mm^2
- Tensile adhesion strength after water immersion	≥ 1 N/mm^2
- Tensile adhesion strength after freeze thaw cycles	≥ 1 N/mm^2

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ISOMAT AK-LIGHT

Light-weight, flexible adhesive, for all type of tiles on deformable substrates

Description

ISOMAT AK-LIGHT is a high quality, light weight polymer-modified, cement-based tile adhesive. Due to its light weight, the tile fixing is much more easy and the required quantity is reduced compared to an adhesive with regular aggregates. It provides high initial and final adhesive strength, resistance to moisture and elasticity. It is qualified as absolutely non-slip (zero slipping of the tile) and possesses increased open time.
It is classified as type C2 TE S1 adhesive according to EN 12004 and EN 12002.

Fields of application

ISOMAT AK-LIGHT is suitable for fixing absorptive or non-absorptive tiles (e.g. “gres porcelanato”), natural stone, decorative bricks, large tiles, glass mosaic tiles etc. on walls or floors on various substrates, especially where particularly high adhesion, elasticity and moisture resistance are required (e.g. old tile layers, floors with in-floor heating, metallic surfaces, swimming pools, gypsum boards etc.). Suitable for indoor or outdoor use.

Technical data

Form:	cementitious mortar
Color:	white
Water demand:	8,10 l/18 kg bag
Application temperature:	from +5°C to +35°C
Application thickness:	up to 15 mm
Pot life:	at least 6 h
Open time:	at least 30 min
Minor adjustments open time:	at least 30 min
Slip:	≤ 0,5 mm
Pointing on walls:	after 3-8 h
Pointing on floors:	after 24 h

Adhesive strength after:

• 28 days:	≥ 1,90 N/mm^2
• heating in +70ºC:	≥ 1,90 N/mm^2
• immersion in water:	≥ 1,50 N/mm^2
• 25 freeze-thaw cycles:	≥ 1,50 N/mm^2

Temperature resistance: from -30°C to +90°C

Deformation ability according to EN 12002: > 2,5 mm

All measurements were conducted according to EN 12004.

Directions for use

1. Substrate
The surface to be overlaid must be clean, free of dust, grease, paint, loose material etc. Dampening of the substrate before application is recommended.

2. Application
ISOMAT AK-LIGHT is gradually added into water under continuous stirring, until a uniform paste is formed. A low revolution mixer is recommended for mixing.
The mixture should be left about 10 minutes to settle and should be stirred slightly again. The tile adhesive should be spread (“combed”) on the substrate using a notched trowel, in order to be uniformly applied on the whole surface. The tiles should be fixed by pressing them in the desired position.
The applied mixture must be covered with tiles within 30 minutes in order to avoid “skin” formation, i.e. before the adhesive film starts setting.

Consumption

1,0-3,0 kg/m^2, depending on the trowel's notch size and the nature of the substrate.

ISOMAT AK-LIGHT

Packaging

ISOMAT AK-LIGHT is supplied in paper bags of 18 kg.

Shelf-life - Storage

12 months from production date if stored in original, unopened packaging, in places protected from moisture and frost.

Remarks

- ISOMAT AK-LIGHT contains cement and reacts as alkaline with moisture, so it is classified as irritant.
- Very porous surfaces such as aerated concrete, gypsum boards, chipboards etc. must be primed first with UNI-PRIMER acrylic primer.
- Consult usage risks and safety advice written on the bag.

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ISOMAT S.A.
17th km Thessaloniki - Ag. Athanasios,
P.O. BOX 1043, 570 03 Ag. Athanasios, Greece

EN 12004

Improved, deformable, cementitious adhesive for tiling, with extended open time and reduced slip

- Reaction to fire	Class A1/A1$_{fl}$
- Initial tensile adhesion strength	≥ 1 N/mm^2
- Tensile adhesion strength after heat ageing	≥ 1 N/mm^2
- Tensile adhesion strength after water immersion	≥ 1 N/mm^2
- Tensile adhesion strength after freeze thaw cycles	≥ 1 N/mm^2

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ISOMAT AK-MEGARAPID

High performance, two-component, fast setting, flexible tile adhesive

Description

ISOMAT AK-MEGARAPID is a two-component, fast-setting tile adhesive. It consists of a cement-based powder mortar (component A) and a resin emulsion (component B). It provides high initial and final adhesive strength, exceptional flexibility and moisture resistance. It has increased open time for the application. It is classified as type C2 FE S2 adhesive according to EN 12004 and EN 12002.

Fields of application

ISOMAT AK-MEGARAPID is suitable for fixing absorptive and non-absorptive tiles (e.g. “gres porcelanato”), natural stone, decorative bricks, large tiles etc, on wall or floor. Especially appropriate for vibrative or dimensionally unstable substrates such as gypsum-boards, chip-boards, underfloor heating systems, balconies, terraces, metal surfaces, swimming pools etc. It is ideal for floors with heavy traffic and for areas that must be ready for use within short time.
Suitable for indoor and outdoor applications.

Technical data

	Component A	Component B
Basis:		cementitious
water dispersion powder		of acrylic polymer
Color:	white	white
Mixing proportion:	2.5 parts by weight	0.8 part by weight

Combined product

Application temperature:	from +5^{0}C to +35^{0}C
Application thickness:	up to 10 mm
Pot life:	at least 2,5 h
Open time:	at least 30 min
Minor adjustments open time:	at least 20 min
Pointing on wall:	after 2-3 h
Pointing on floor:	after 3-4 h

Adhesive strength after:

- 28 days: ≥ 2,00 N/mm^2
- heating in +70ºC: ≥ 2,00 N/mm^2
- immersion in water: ≥ 1,50 N/mm^2
- 25 freeze-thaw cycles: ≥ 1,50 N/mm^2

Adhesive strength after:

- 6 hours: ≥ 0,75 N/mm^2

Temperature resistance:	from -30^{0}C to +90^{0}C
Deformation ability according to EN 12002:	> 5,0 mm

All measurements were conducted according to EN 12004.

Directions for use

1. Substrate
The surface to be overlaid must be clean, free of dust, grease, paint, loose material etc. Dampening of the substrate before application is recommended.

2. Application
The content of the 25 kg bag (component A) is added into the 8 kg of liquid (component B) under continuous stirring, until a homogenous paste is formed. A low revolution mixer is recommended for mixing.
The mixture should be left about 10 min to settle and should be stirred slightly again.
The tile adhesive should be spread and “combed” on the substrate using a notched trowel, in order to be applied uniformly on the whole surface. The tiles should be then fixed by pressing them in the desired position.
The spread mixture should be covered with tiles within 30 min in order to avoid skin formation, i.e. before the adhesive film starts setting.

Consumption

1,5-4,0 kg/m^2, depending on the trowel's notch size and the nature of the substrate.

ISOMAT AK-MEGARAPID

Packaging

- Combined 33 kg package (25 kg cement-based powder mortar bag + 8 kg emulsion resin plastic container).

Shelf-life - Storage

Component A:
12 months from production date if stored in original, unopened packaging, in places protected from moisture and frost.

Component B:
12 months from production date if stored in original, unopened packaging, in temperature between +5°C and +35°C. Protect from direct sun exposure and frost.

Remarks

- The A-component of ISOMAT AK-MEGARAPID contains cement and reacts as alkaline with moisture, so it is classified as irritant.
- Very porous surfaces such as aerated concrete, gypsum boards, chipboards etc. must be primed first with UNI-PRIMER acrylic primer.
- In case ISOMAT AK-MEGARAPID is used for the adhesion of non-absorptive tiles on non-absorptive substrates, the setting time of the adhesive might be prolonged.
- Consult usage risks and safety advice written on the bag.

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ISOMAT S.A.
17th km Thessaloniki - Ag. Athanasios,
P.O. BOX 1043, 570 03 Ag. Athanasios, Greece

EN 12004

Improved, fast setting, highly deformable, cementitious adhesive for tiling, with extended open time

- Reaction to fire	Class F
- Early tensile adhesion strength	≥ 0,5 N/mm²
- Initial tensile adhesion strength	≥ 1 N/mm²
- Tensile adhesion strength after heat ageing	≥ 1 N/mm²
- Tensile adhesion strength after water immersion	≥ 1 N/mm²
- Tensile adhesion strength after freeze thaw cycles	≥ 1 N/mm²

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ISOMAT AK-ELASTIC

High performance, two-component elastic adhesive, for all type of ceramic and mosaic tiles, stone material, on deformable and vibrative substrates

Description

ISOMAT AK-ELASTIC is a 2-component elastic tile adhesive. It consists of a cement-based powder mortar (component A) and a resin emulsion (component B). It provides high initial and final adhesive strength, exceptional elasticity and moisture resistance. It possesses increased open time for application.
It is classified as type C2 E S2 adhesive according to EN 12004 and EN 12002.

Fields of application

ISOMAT AK-ELASTIC is suitable for fixing ceramic or natural stone tiles on walls or floors, on vibrative or dimensionally unstable substrates like gypsum board, chipboard, floors with in-floor heating, terraces, balconies, swimming pools, etc. It is also suitable for fixing large tiles as well as new tiles on old tile layers. Suitable for indoor or outdoor use.
Combined with the 2-component brushable sealing slurries AQUAMAT-FLEX and AQUAMAT-ELASTIC, it provides a perfect system for sealing and fixing.

Technical data

	Component A	Component B
Basis:	cementitious powder	water dispersion of acrylic polymer
Color:	white	white
Mixing proportion:	2,5 parts by weight	1 part by weight

Combined product

Application temperature:	from +5°C to +35°C
Application thickness:	up to 10 mm
Pot life:	at least 8 h
Open time:	at least 30 min
Minor adjustments open time:	at least 30 min
Pointing on walls:	after 6-12 h
Pointing on floors:	after 24-48 h

Adhesive strength after:

- 28 days: ≥ 2,00 N/mm²
- heating in +70ºC: ≥ 2,00 N/mm²
- immersion in water: ≥ 1,50 N/mm²
- 25 freeze-thaw cycles: ≥ 1,50 N/mm²

Temperature resistance: from -30°C to +90°C

Deformation ability according to EN 12002: > 5,0 mm

All measurements were conducted according to EN 12004.

Directions for use

1. Substrate
The surface to be overlaid must be clean, free of dust, grease, paint, loose material etc. Dampening of the substrate before application is recommended.

2. Application
The content of the 25 kg bag (component A) is added into the 10 kg of liquid (component B) under continuous stirring, until a homogenous paste is formed. A low revolution mixer is recommended for mixing.
The mixture should be left about 10 min to settle and should be stirred slightly again.
The tile adhesive should be spread and "combed" on the substrate using a notched trowel, in order to be applied uniformly on the whole surface. The tiles should be then fixed by pressing them in the desired position.
The spread mixture should be covered with tiles within 30 min in order to avoid skin formation, i.e. before the adhesive film starts setting.

ISOMAT AK-ELASTIC

Consumption

1,5-4,0 kg/m^2, depending on the trowel's notch size and the nature of the substrate.

Packaging

- Combined 35 kg package
  (25 kg cement-based powder mortar bag + 10 kg emulsion resin plastic container).
- Combined 7 kg package
  (5 kg cement-based powder mortar bag + 2 kg emulsion resin plastic container).

Shelf-life - Storage

Component A:
12 months from production date if stored in original, unopened packaging, in places protected from moisture and frost.

Component B:
12 months from production date if stored in original, unopened packaging, in temperature between +5°C and +35°C. Protect from direct sun exposure and frost.

Remarks

- The A-component of ISOMAT AK-ELASTIC contains cement and reacts as alkaline with moisture, so it is classified as irritant.
- Very porous surfaces such as aerated concrete, gypsum boards, chipboards etc. must be primed first with UNI-PRIMER acrylic primer.
- In case ISOMAT AK-ELASTIC is used for the adhesion of non-absorptive tiles on non-absorptive substrates, the setting time of the adhesive might be prolonged.
- Consult usage risks and safety advice written on the bag.

CE

08

ISOMAT S.A.
17th km Thessaloniki - Ag. Athanasios,
P.O. BOX 1043, 570 03 Ag. Athanasios, Greece

EN 12004

Improved, highly deformable, cementitious adhesive for tiling, with extended open time

- Reaction to fire	Class F
- Initial tensile adhesion strength	≥ 1 N/mm^2
- Tensile adhesion strength after heat ageing	≥ 1 N/mm^2
- Tensile adhesion strength after water immersion	≥ 1 N/mm^2
- Tensile adhesion strength after freeze thaw cycles	≥ 1 N/mm^2

The technical information and instructions supplied in this datasheet are based on the knowledge and experience of the department of Research and Development of our company and on results from long-term applications of the product in practice. The recommendations and suggestions referring to the use of the product are provided without guarantee, since site conditions during the applications are beyond the control of our company. Therefore the user is responsible for confirming that the chosen product is suitable for the envisaged application. The present edition of this technical data sheet automatically cancels any previous one concerning the same product.

ISOMAT AK-RAPID

Fast-setting polymer modified tile adhesive

Description

ISOMAT AK-RAPID is a fast-setting, polymer modified cement-based tile adhesive.
It provides high initial and final adhesive strength and moisture resistance. It is qualified as absolutely non-slip (zero slipping of the tile). It is classified as type C2 FT adhesive according to EN 12004.

Fields of application

ISOMAT AK-RAPID is suitable for fixing absorptive or non-absorptive tiles on walls or floors on surfaces made of concrete, brickwork, plaster etc., indoors or outdoors. It is ideal in cases where the surfaces have to be delivered fast for use, e.g. work areas etc.

Technical data

Form:	cementitious mortar
Colors:	grey, white
Water demand:	6,75 l/25 kg bag
Application temperature:	from +5°C to +35°C
Application thickness:	up to 10 mm
Pot life:	at least 1 h
Open time:	at least 15 min
Minor adjustments open time:	at least 10 min
Slip:	≤ 0,5 mm
Pointing on walls:	after 1 h
Pointing on floors:	after 1-3 h
Adhesive strength after:	
• 3 hours:	≥ 0,15 N/mm^2
• 6 hours:	≥ 0,50 N/mm^2
• 28 days:	≥ 1,40 N/mm^2
• heating in +70ºC:	≥ 1,00 N/mm^2
• immersion in water:	≥ 1,00 N/mm^2
• 25 freeze-thaw cycles:	≥ 1,00 N/mm^2

Temperature resistance: from -30°C to +90°C

All measurements were conducted according to EN 12004

Directions for use

1. Substrate
The surface to be overlaid must be clean, free of dust, grease, paint, loose material etc. Dampening of the substrate before application is recommended.

2. Application
ISOMAT AK-RAPID is gradually added into water under continuous stirring, until a uniform paste is formed. A low revolution mixer is recommended for mixing.
The mixture should be left about 10 minutes to settle and should be stirred slightly again. The tile adhesive should be spread (“combed”) on the substrate using a notched trowel, in order to be uniformly applied on the whole surface. The marble or granite should be fixed by pressing them in the desired position.
The applied mixture must be covered with marble or granite within 15 minutes in order to avoid “skin” formation, i.e. before the adhesive film starts setting.

Elastification

For tiling on unstable substrates subject to vibrations or contraction-expansion effects, such as gypsum boards, chipboards, in-floor heating floors, terraces, balconies etc. it is necessary that the tile adhesive be elastified with the addition of 2,5-5 kg of ADIFLEX-B to 25 kg of ISOMAT AK-RAPID plus a quantity of water depending on the desired workability.

ISOMAT AK-RAPID

Consumption

1,5-4,0 kg/m^2, depending on the trowel's notch size and the nature of the substrate.

Packaging

ISOMAT AK-RAPID is supplied in paper bags of 25 kg and plastic bags of 5 kg in white color and 25 kg bags in grey color.

Shelf-life - Storage

- Paper bags of 25 kg:
  12 months from production date
- Plastic bags of 5 kg:
  18 months from production date

All of the above are in effect if the product is stored in original unopened packaging, in places protected from moisture and frost.

Remarks

- ISOMAT AK-RAPID contains cement and reacts as alkaline with moisture, so it is classified as irritant.
- Very porous surfaces such as aerated concrete, gypsum boards, chipboards etc. must be primed first with UNI-PRIMER acrylic primer.
- Consult usage risks and safety advice written on the bag.

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ISOMAT S.A.
17th km Thessaloniki - Ag. Athanasios,
P.O. BOX 1043, 570 03 Ag. Athanasios, Greece

EN 12004

Improved, fast setting cementitious adhesive for tiling, with reduced slip

- Reaction to fire	Class A1/A1$_{fl}$
- Early tensile adhesion strength	≥ 0,5 N/mm^2
- Initial tensile adhesion strength	≥ 1 N/mm^2
- Tensile adhesion strength after heat ageing	≥ 1 N/mm^2
- Tensile adhesion strength after water immersion	≥ 1 N/mm^2
- Tensile adhesion strength after freeze thaw cycles	≥ 1 N/mm^2

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ISOMAT AK-STONE

Coarse-grained tile and natural stone adhesive

Description

ISOMAT AK-STONE is a coarse-grained, cement-based tile adhesive, suitable for thick layers (up to 15 mm). It provides high initial and final adhesive strength and moisture resistance. It possesses increased open time for application.
It is classified as type C1 E adhesive according to EN 12004.

Fields of application

ISOMAT AK-STONE is suitable for fixing tiles or natural stone on walls or floors on surfaces made of concrete, brickwork, plaster etc., indoors or outdoors. Due to its ability to be applied in increased thickness, it can smooth out rough substrates.

Technical data

Form:	cementitious mortar
Colors:	grey, white
Water demand:	6,00 l/25 kg bag
Application temperature:	from +5°C to +35°C
Application thickness:	up to 15 mm
Pot life:	at least 6 h
Open time:	at least 30 min
Minor adjustments open time:	at least 30 min
Pointing on walls:	after 3-8 h
Pointing on floors:	after 24 h
Adhesive strength after:	
• 28 days:	≥ 1,10 N/mm²
• heating in +70ºC:	≥ 0,50 N/mm²
• immersion in water:	≥ 0,65 N/mm²
• 25 freeze-thaw cycles:	≥ 0,50 N/mm²
Temperature resistance:	from -15°C to +60°C

All measurements were conducted according to EN 12004.

Directions for use

1. Substrate
The surface to be overlaid must be clean, free of dust, grease, paint, loose material etc. Dampening of the substrate before application is recommended.

2. Application
ISOMAT AK-STONE is gradually added into water under continuous stirring, until a uniform paste is formed. A low revolution mixer is recommended for mixing.
The mixture should be left about 10 minutes to settle and should be stirred slightly again. The tile adhesive should be spread (“combed”) on the substrate using a notched trowel, in order to be uniformly applied on the whole surface. The tiles should be fixed by pressing them in the desired position.
The applied mixture must be covered with tiles within 30 minutes in order to avoid “skin” formation, i.e. before the adhesive film starts setting.

Elastification

For tiling on unstable substrates subject to vibrations or contraction-expansion effects, such as gypsum boards, chipboards, in-floor heating floors, terraces, balconies etc. it is necessary that the tile adhesive be elastified with the addition of 5-10 kg of ADIFLEX-B to 25 kg of ISOMAT AK-STONE plus a quantity of water depending on the desired workability.

Consumption

2,0-8,0 kg/m², depending on the trowel's notch size and the nature of the substrate.

ISOMAT AK-STONE

Packaging

ISOMAT AK-STONE is supplied in paper bags of 25 kg.

Shelf-life - Storage

12 months from production date if stored in original, unopened packaging, in places protected from moisture and frost.

Remarks

- ISOMAT AK-STONE contains cement and reacts as alkaline with moisture, so it is classified as irritant.
- Very porous surfaces such as aerated concrete, gypsum boards, chipboards etc. must be primed first with UNI-PRIMER acrylic primer.
- Consult usage risks and safety advice written on the bag.

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ISOMAT S.A.
17th km Thessaloniki - Ag. Athanasios,
P.O. BOX 1043, 570 03 Ag. Athanasios, Greece

EN 12004

Normal setting cementitious adhesive for tiling, with extended open time

- Reaction to fire	Class $A1/A1_{fl}$
- Initial tensile adhesion strength	$\geq 0,5$ N/mm^2
- Tensile adhesion strength after heat ageing	$\geq 0,5$ N/mm^2
- Tensile adhesion strength after water immersion	$\geq 0,5$ N/mm^2
- Tensile adhesion strength after freeze thaw cycles	$\geq 0,5$ N/mm^2

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ISOMAT AK-GRAND

Polymer-modified adhesive for decorative overlayers

Description

ISOMAT AK-GRAND is a coarse-grained, polymer modified cement-based tile adhesive for decorative overlays. It is suitable for thick layers (up to 15 mm). It provides high initial and final adhesive strength and moisture resistance. It possesses increased open time for application.
It can also be used for pointing (grouting) in the above applications.
It is classified as type C2 E adhesive according to EN 12004.

Fields of application

ISOMAT AK-GRAND is suitable for fixing and pointing decorative overlays (artificial stone, slate, decorative bricks etc.) on walls or floors on various surfaces and especially where high adhesion and moisture resistance are required, indoors or outdoors. Due to its ability to be applied in increased thickness, it can smooth out rough substrates.

Technical data

Form:	cementitious mortar
Colors:	grey, white, beige
Water demand:	7,00 l/25 kg bag
Application temperature:	from +5°C to +35°C
Application thickness:	up to 15 mm
Pot life:	at least 6 h
Open time:	at least 30 min
Minor adjustments open time:	at least 30 min
Pointing on walls:	after 3-8 h
Pointing on floors:	after 24 h

Adhesive strength after:

- 28 days: ≥ 1,60 N/mm^2
- heating in +70ºC: ≥ 1,50 N/mm^2
- immersion in water: ≥ 1,30 N/mm^2
- 25 freeze-thaw cycles: ≥ 1,50 N/mm^2

Temperature resistance: from -30°C to +90°C

All measurements were conducted according to EN 12004.

Directions for use

1. Substrate
The surface to be covered with tiles should be totally clean, free of dust, grease, paint etc. It is recommended to be dampened before application.

2. Application

a) Fixing decorative overlayers
ISOMAT AK-GRAND is gradually added into water under continuous stirring, until a uniform paste is formed. A low revolution mixer is recommended for mixing. The mixture should be left about 10 minutes to rest and should be stirred slightly again. The tile adhesive is spread on the substrate using a notched trowel, in order to be applied uniformly on the whole surface. The tiles are fixed by pressing them in the desired position.
The mixture should be covered with tiles in 30 minutes at most, to avoid skin formation on the surface of the adhesive, that is before the setting of the adhesive film.

b) Pointing decorative overlayers
In case of using the adhesive for pointing, the joints are filled with ISOMAT AK-GRAND by trowel and the surface is smoothed with a very thin trowel or a special blade. At the same time the finishing work is done with a slightly wet sponge. Finally, the surface of the tiles is cleaned with a dry cloth.

ISOMAT AK-GRAND

Elastification

For tiling on unstable substrates subject to vibrations or contraction-expansion effects, such as gypsum boards, chipboards, in-floor heating floors, terraces, balconies etc. it is necessary that the tile adhesive be elastified with the addition of 5-10 kg of ADIFLEX-B to 25 kg of ISOMAT AK-GRAND plus a quantity of water depending on the desired workability.

Consumption

a) Tiling of decorative overlayers
2,0-8,0 kg/m^2, depending on the trowel's notch size and the kind of the substrate.

b) Pointing decorative overlayers
0,5-5,0 kg/m^2, depending on the width and depth of the joint.

Packaging

ISOMAT AK-GRAND is supplied in paper bags of 25 kg.

Shelf-life - Storage

12 months from production date if stored in original, unopened packaging, in places protected from moisture and frost.

Remarks

- ISOMAT AK-GRAND contains cement and reacts as alkaline with moisture, so it is classified as irritant.
- Very porous surfaces such as aerated concrete, gypsum boards, chipboards etc. must be primed first with UNI-PRIMER acrylic primer.
- In case of using elasticized or partly elasticized adhesive for grouting, the stones or decorative bricks must be cleaned fast and with care.
- Consult usage risks and safety advice written on the bag.

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ISOMAT S.A.
17th km Thessaloniki - Ag. Athanasios,
P.O. BOX 1043, 570 03 Ag. Athanasios, Greece

EN 12004

Improved cementitious adhesive for tiling, with extended open time

- Reaction to fire	Class A1/A1$_{fl}$
- Initial tensile adhesion strength	≥ 1 N/mm^2
- Tensile adhesion strength after heat ageing	≥ 1 N/mm^2
- Tensile adhesion strength after water immersion	≥ 1 N/mm^2
- Tensile adhesion strength after freeze thaw cycles	≥ 1 N/mm^2

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CE TÜV CERT EN ISO 9001

ISOMAT AK-MARBLE

Polymer modified marble and granite adhesive

Description

ISOMAT AK-MARBLE is a fast-setting, polymer modified cement-based marble and granite adhesive. It provides high initial and final adhesive strength and moisture resistance. It possesses increased open time for application. It prevents staining of sensitive overlays, such as marble layers, due to fast retention of water. It is classified as type C2 E adhesive according to EN 12004.

Fields of application

ISOMAT AK-MARBLE is suitable for fixing marble or granite on walls or floors on various surfaces and especially where high adhesion and moisture resistance are required. It is suitable for indoor or outdoor applications.

Technical data

Form:	cementitious mortar
Color:	white
Water demand:	6,75 l/25 kg bag
Application temperature:	from +5^{0}C to +35^{0}C
Application thickness:	up to 10 mm
Pot life:	at least 6 h
Open time:	at least 30 min
Minor adjustments open time:	at least 30 min
Pointing on walls:	after 3-8 h
Pointing on floors:	after 24 h
Adhesive strength after:	
• 24 hours:	≥ 0,50 N/mm^2
• 28 days:	≥ 1,80 N/mm^2
• heating in +70ºC:	≥ 1,80 N/mm^2
• immersion in water:	≥ 1,50 N/mm^2
• 25 freeze-thaw cycles:	≥ 1,50 N/mm^2

Temperature resistance: from -30^{0}C to +90^{0}C

All measurements were conducted according to EN 12004.

Technical data

1. Substrate
The surface to be overlaid must be clean, free of dust, grease, paint, loose material etc. Dampening of the substrate before application is recommended.

2. Application
ISOMAT AK-MARBLE is gradually added into water under continuous stirring, until a uniform paste is formed. A low revolution mixer is recommended for mixing.
The mixture should be left about 10 minutes to settle and should be stirred slightly again. The tile adhesive should be spread (“combed”) on the substrate using a notched trowel, in order to be uniformly applied on the whole surface. The marble or granite should be fixed by pressing them in the desired position.
The applied mixture must be covered with marble or granite within 30 minutes in order to avoid “skin” formation, i.e. before the adhesive film starts setting.

Elastification

For tiling on unstable substrates subject to vibrations or contraction-expansion effects, such as gypsum boards, chipboards, in-floor heating floors, terraces, balconies etc. it is necessary that the tile adhesive be elastified with the addition of 2,5-5 kg of ADIFLEX-B to 25 kg of ISOMAT AK-MARBLE plus a quantity of water depending on the desired workability.

Consumption

1,5-6,0 kg/m^2, depending on the trowel's notch size and the nature of the substrate.

ISOMAT AK-MARBLE

Packaging

ISOMAT AK-MARBLE is supplied in paper bags of 25 kg.

Shelf-life - Storage

12 months from production date if stored in original, unopened packaging, in places protected from moisture and frost.

Remarks

- ISOMAT AK-MARBLE contains cement and reacts as alkaline with moisture, so it is classified as irritant.
- Very porous surfaces such as aerated concrete, gypsum boards, chipboards etc. must be primed first with UNI-PRIMER acrylic primer.
- Consult usage risks and safety advice written on the bag.

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ISOMAT S.A.
17th km Thessaloniki - Ag. Athanasios,
P.O. BOX 1043, 570 03 Ag. Athanasios, Greece

EN 12004

Improved, cementitious adhesive for tiling, with extended open time

- Reaction to fire	Class $A1/A1_{fl}$
- Initial tensile adhesion strength	≥ 1 N/mm^2
- Tensile adhesion strength after heat ageing	≥ 1 N/mm^2
- Tensile adhesion strength after water immersion	≥ 1 N/mm^2
- Tensile adhesion strength after freeze thaw cycles	≥ 1 N/mm^2

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ISOMAT AK-FLUX

High quality, polymer-modified, full-bed leveling tile adhesive

Description

ISOMAT AK-FLUX is a high quality, polymer-modified, cement based tile adhesive.
After the mixing with water, it attains fluid consistency that facilitates especially its use and the procedure of tile fixing. It provides high initial and final strengths, and resistance to moisture. It has increased open time for application.
It is qualified as type C2 E adhesive according to EN 12004.

Fields of application

ISOMAT AK-FLUX is suitable for fixing absorptive and non-absorptive tiles (e.g. “gres porcelanato”), natural stone, marble etc., on various substrates, especially where high adhesion and moisture resistance is required (e.g. old tile layers, floors with in-floor heating etc.). Ideal for fixing large-format tiles. Because of its fluidity and ability to be applied in thick layers, it can smooth and level out at once any imperfections of the substrate.
It is suitable for indoor or outdoor applications.

Technical data

Form:	cementitious mortar
Color:	grey
Water demand:	6,50 l/25 kg bag
Application temperature:	from +5^{0}C to +35^{0}C
Application thickness:	up to 20 mm
Pot life:	at least 6 h
Open time:	at least 30 min
Minor adjustments open time:	at least 30 min
Pointing on floors:	after 24 h

Adhesive strength after:
- 28 days: ≥ 1,50 N/mm^2
- heating in +70ºC: ≥ 1,30 N/mm^2
- immersion in water: ≥ 1,00 N/mm^2
- 25 freeze-thaw cycles: ≥ 1,00 N/mm^2

Temperature resistance: from -30^{0}C to +90^{0}C

All measurements were conducted according to EN 12004.

Directions for use

1. Substrate
The substrate to be overlaid must be clean, free of dust, grease, paint, loose material etc. Dampening of the substrate before application is recommended.

2. Application
ISOMAT AK-FLUX is gradually added into the water under continuous stirring, until a uniform mixture is formed. A low revolution mixer is recommended for mixing.
The mixture should be left about 10 minutes to settle and after that to be stirred slightly again. The tile adhesive should be spread (“combed”) on the substrate using a notched trowel, in order to be uniformly applied on the whole surface. Thereafter, the tiles should be fixed by pressing them on the desired position.
The applied mixture must be covered with tiles within 30 minutes in order to avoid “skin” formation, i.e. before the adhesive film starts setting.

Elastification

For tiling on unstable substrates subject to vibrations or contraction-expansion effects, such as gypsum boards, chipboards, in-floor heating floors, etc. it is necessary that the tile adhesive be elastified with the addition of 5-10 kg of ADIFLEX-B to 25 kg of ISOMAT AK-FLUX plus a quantity of water depending on the desired workability.

ISOMAT AK-FLUX

Consumption

2,0-8,0 kg/m^2, depending on the trowel's notch size and the nature of the substrate.

Packaging

ISOMAT AK-FLUX is supplied in paper bags of 25 kg.

Shelf-life - Storage

12 months from production date if stored in original, unopened packaging, in places protected from moisture and frost.

Remarks

- ISOMAT AK-FLUX contains cement and reacts as alkaline with moisture, so it is classified as irritant.
- Very porous surfaces such as chipboards etc. must be primed first with UNI-PRIMER acrylic primer.
- Consult usage risks and safety advice written on the bag.

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ISOMAT S.A.
17th km Thessaloniki - Ag. Athanasios,
P.O. BOX 1043, 570 03 Ag. Athanasios, Greece

EN 12004

Improved cementitious adhesive for tiling, with extended open time

- Reaction to fire	Class A1/A1$_{fl}$
- Initial tensile adhesion strength	≥ 1 N/mm^2
- Tensile adhesion strength after heat ageing	≥ 1 N/mm^2
- Tensile adhesion strength after water immersion	≥ 1 N/mm^2
- Tensile adhesion strength after freeze thaw cycles	≥ 1 N/mm^2

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ISOMAT AK-PRIMER

Adhesive promoter for tile adhesives

Description

One-component adhesive promoter based on acrylic resins. It is used for the preparation of smooth, absorbent and non absorbent substrates before the application of cement –based adhesives for tiles, natural or synthetic stones, etc.

Fields of application

ISOMAT AK-PRIMER can be applied as an adhesive promoter on various substrates such as old tiles, marbles, natural stones, smooth cement-based industrial floorings, wooden, metallic or rigid PVC floorings, etc.

Technical data

Form:	polymer emulsion
Color:	light purple
Density:	1,00 kg/lit
pH:	9
Successive layer:	after 1 h at +20°C

Directions for use

1. Substrate
The surface to be primed must be dry and free of dust, grease, dirt etc.

2. Application
ISOMAT AK-PRIMER is poured directly from the can onto the substrate and then it is spread in one layer, using a roller or brush. Isomat® AK-PRIMER can be covered after 1h at +20°C.

In cases where the surface hasn't been covered with the first layer, then a second one follows after the first one has dried.
The tile adhesive can be applied after an hour and while ISOMAT AK-PRIMER is still sticky.

Consumption

100-200 g/m^2, depending on the absorptivity of the substrate.

Packaging

Containers of 1 kg, 5 kg and 20 kg.

Shelf-life - Storage

12 months from production date if stored in original, unopened packaging, in temperature between +5°C and +35°C. Protect from direct sun exposure and frost.

Remarks

- The application temperature should be from +5°C to +35°C.
- The maximum period allowed for overlaying is 12 hours (at +20°C). Once this period has elapsed, a new layer of ISOMAT AK-PRIMER should be applied, before the application of the tile adhesive.

Volatile organic compounds (VOCs)

According to the Directive 2004/42/CE (Annex II, table A), the maximum allowed VOC content for the product subcategory h, type WB is 30g/l (2010) for the ready to use product.
The ready to use product ISOMAT AK-PRIMER contains max <30 g/l VOC.

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TÜV CERT EN ISO 9001

UNI-PRIMER

Acrylic water-based primer

Description

Polymer emulsion, which stabilizes porous substrates and ensures the proper adhesion of water-based paints, tile-adhesives, flexible mortars, brushable elastomeric coatings etc. By penetrating inside the pores of the substrate, it acts as a bonding layer between the substrate and the paint, adhesive, mortar, coating etc., to be applied.

Fields of application

UNI-PRIMER is a ready-to-use primer suitable for ensuring the adhesion of water-based paints on porous substrates made of concrete, masonry, plaster, gypsum boards, chip boards etc.
It stabilizes weak or crumbling plasters etc.
It is also used for stabilizing and reducing the water absorption of surfaces formed by gypsum boards or chip boards, on which tile-adhesives, AQUAMAT-ELASTIC (2-component, elastic sealing slurry) or ISOMAT SL 17 (brushable, elastomeric liquid membrane for waterproofing under tiles), are going to be subsequently applied.
It is suitable for indoor and outdoor applications.

Technical data

Form:	emulsion
Color:	white
Density:	1,00 kg/lit

Directions for use

1. Substrate
The surface to be primed must be dry and free of dust, grease, dirt etc.

2. Application
UNI-PRIMER is thoroughly stirred and uniformly applied on the substrate by brush, roller or spraying, before painting.

Consumption

100-200 g/m^2, depending on the absorptivity of the substrate.

Packaging

UNI-PRIMER is available in plastic containers of 1 kg, 5 kg and 20 kg.

Shelf-life - Storage

12 months from production date if stored in original, unopened packaging, in temperature between +5^{o}C and +35^{o}C. Protect from direct sun exposure and frost.

Remarks

- Temperature during application should be at least +5^{o}C.

Volatile organic compounds (VOCs)

According to the Directive 2004/42/CE (Annex II, table A), the maximum allowed VOC content for the product subcategory h, type WB is 30g/l (2010) for the ready to use product.
The ready to use product UNI-PRIMER contains max <30 g/l VOC.

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TÜV CERT EN ISO 9001

MULTIFLEX

Ready-to-use, high quality pasty tile adhesive

Description

MULTIFLEX is a ready-to-use pasty tile adhesive based on acrylic resins. It provides high initial and final adhesive strength, high elasticity and resistance to moisture. It is qualified as absolutely non-slip (zero slipping of the tile). It is ideal for minor repairs due to its fast and easy application. It is classified as type D2T adhesive according to EN 12004.

Fields of application

MULTIFLEX is suitable for fixing absorptive or non-absorptive tiles, glass mosaic tiles, thermal and sound insulation boards, natural stones. It is applied on substrates such as concrete, brick, cellular concrete, plaster, gypsum-board, cement- board, wood.
Suitable for areas with moisture such as bathrooms, kitchens etc. It is used internally on walls and floors and externally on walls.

Technical data

Form:	acrylic paste dispersion
Color: white	
Application temperature:	from +5°C to +35°C
Temperature resistance:	from -20°C to +90°C
Adhesive strength:	1,20 N/mm^2
Adhesive strength after:	
• immersion in water:	≥ 0,50 N/mm^2
• heating:	≥ 2,10 N/mm^2
Slip:	≤ 0,5 mm
Open time:	25 min
Minor adjustments open time:	20 min
Pointing on walls:	after 12 h
Pointing on floors:	after 24 h

Directions for use

1. Substrate
The application surface should be strong enough, free of dust or grease and as flat as possible.

2. Application
MULTIFLEX is spread and “combed” on the surface using a notched trowel in order to be uniformly applied on the whole surface. Then the tiles are fixed by pressing them in the desired position.
The applied mixture must be covered with tiles within 25 minutes in order to avoid “skin” formation, i.e. before the adhesive film starts setting.

Consumption

1,0-3,0 kg/m^2, depending on the trowels notch size and the type of substrate

Packaging

MULTIFLEX is supplied in buckets of 1 kg, 5 kg and 25 kg.

Shelf-life - Storage

12 months from production date if stored in original, unopened packaging, in temperature between +5°C and +35°C. Protect from direct sun exposure and frost.

Remarks

- Very porous surfaces such as aerated concrete, gypsum boards, chipboards etc. must be primed first with UNI-PRIMER acrylic primer.
- Places with high moisture (kitchens, bathrooms etc) should be used approx. 7 days after the application of MULTIFLEX in order to be completely dry.
- Do not mix MULTIFLEX with water, cement, lime etc.

MULTIFLEX

- Painted surfaces can be covered with MULTIFLEX as long as the paint is stable, has adequate adhesion to the substrate and the surface is clean.
- MULTIFLEX is not suitable for places with rising moisture or permanent immersion to water such as swimming pools, water tanks etc.
- MULTIFLEX is not suitable for fixing non-absorptive materials over non-absorptive substrates.
- Tools should be cleaned with water while MULTIFLEX is still fresh. After drying the tools are cleaned with SM-12 solvent.
- Consult usage risks and safety advice written on the bag.

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ISOMAT S.A.
17th km Thessaloniki - Ag. Athanasios,
P.O. BOX 1043, 570 03 Ag. Athanasios, Greece

EN 12004

Improved, dispersion adhesive for tiling, with reduced slip

- Reaction to fire	Class F
- Initial tensile adhesion strength	≥ 1 N/mm^2
- Shear adhesion strength after heat ageing	≥ 1 N/mm^2
- Shear adhesion strength at elevated temperatures	≥ 1 N/mm^2
- Tensile adhesion strength after water immersion	≥ 0,5 N/mm^2

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ISOMAT AK 50

2-component epoxy tile adhesive

Description

ISOMAT AK 50 is 2-component solvent-free epoxy tile adhesive. It has high compressive, flexural and adhesive strength. Isomat® AK 50 is resistant to several acids, alkalis, corrosive agents for concrete, cleaning agents, sea water and salted water. It has excellent workability and it is easily cleaned with water before hardening.
It is classified as type R2T adhesive, according to EN 12004.

Fields of application

ISOMAT AK 50 is applied wherever high strength to mechanical loads and resistance to chemical effects is required. It is ideally combined with special tiles for industrial use. It is suitable for fixing wall and floor tiles and for pointing wall tile joints in industrial areas like breweries, dairies, laboratories, slaughterhouses and in other sectors of food or chemical industries as well as in pools, kitchens etc. It is suitable for fixing tiles on various substrates, like concrete, mortar, metal, wood etc. It can also be used for pointing tile joints until 6mm width.
It is also suitable for surfaces in direct contact with food products, according to W-347, EPA 330.5 and EPA 110.2.

Technical data

Basis:	2-component epoxy resin
Color:	light grey
Viscosity:	80.000 mPa.s
Mixing proportion:	100:10,8 by weight
Density:	1,73 kg/lit at +23°C
Pot life:	approx. 45 min at +23°C
Cleaning:	in 45 min at +23°C
Walkability:	after 16 h at +23°C
Minimum hardening temperature:	+10°C
Partial loading:	after 48 h at +23°C
Full loading:	after 7 days at + 23°C
Compressive strength: (DIN EN 196-1)	62,8 N/mm^2
Flexural strength: (DIN EN 196-1)	> 35 N/mm^2
Initial shear adhesion strength (7 days) :	> 5,6 N/mm^2
Shear adhesion strength after water immersion:	> 5,1 N/mm^2
Shear adhesion strength after thermal shock:	> 4,5 N/mm^2
Slip:	≤ 0,5 mm

All measurements were conducted according to EN 12004.

Cleaning of tools:
Tools should be cleaned thoroughly with water after any work interruption.

Directions for use

1. Substrate
The substrate should be dry, clean, statically sufficient, slightly rough and free of materials that prevent bonding such as dust, loose particles, oil residues etc. If needed, it should be prepared by brushing, grinding, sand blasting, pellet blasting, etc. and in case of walls, by grinding with a wire brush or similar tool.

2. Mixing of the components
Components A (resin) and B (hardener) are packed in two separate containers, in pre-determined mixing proportion by weight.
The whole quantity of component B is added into component A. Mixing of the 2 components should take place for approx. 5 minutes, using a low revolution mixer (300 rpm). It is important to stir the mixture thoroughly near the sides and bottom of the container, to achieve uniform dispersion of the hardener.

ISOMAT AK 50

3. Application procedure

Fixing of tiles

The resulting mixture should be spread on the substrate and “combed” using a notched trowel in order to be uniformly applied on the whole surface. The tiles should be fixed by pressing them in the desired position.

Pointing of tile joints

The dry and clean joints are filled with the mixture using a rubber float in a diagonal direction to the joints, in order to fill them completely and to remove the excessive material. The small quantity of the epoxy grout that remains on the floor tiles surface is emulsified by being rubbed with a slightly wetted hard sponge. After ISOMAT AK 50 set enough the emulsified material is removed by using a soft sponge. Subsequently, the tiles surface is cleaned again with a soft clean sponge. The use of lukewarm water makes cleaning easier. For even easier cleaning 10% spirit (by weight) may be added in the water used.

Consumption

As tile adhesive: Approx. 1,75 kg/m^2/mm

Packaging

ISOMAT AK 50 is available in packages of 5 kg and 10kg in pre-determined mixing proportion by weight. The container of component B is built in the container of component A.

Shelf-life - Storage

12 months from date of production if stored in original sealed packaging, in areas protected from humidity and direct sun exposure. Recommended storage temperature between +5°C and +35°C.

Remarks

- In low temperatures the material loses its good workability and reaction times increase. On the other hand, high temperatures reduce working time. The ideal temperature of application is between +15°C and +25°C, in order that the product has the most optimal workability and time of curing. In low temperatures (<+15°C) is observed delay on setting, while in higher (>+30°C), is observed acceleration. Is recommended a soft warm-up of materials on wintry months and respectively on summer their storage in cool place before use
- ISOMAT AK 50 is completely safe for health after hardening.
- Consult the safety advice mentioned on the label before use.

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ISOMAT S.A.
17th km Thessaloniki - Ag. Athanasios,
P.O. BOX 1043, 570 03 Ag. Athanasios, Greece

EN 12004

Improved reaction resin adhesive with reduced slip

- Reaction to fire	Class F
- Initial shear adhesion strength	≥ 2 N/mm^2
- Shear adhesion strength after thermal shock	≥ 2 N/mm^2
- Shear adhesion strength after water immersion	≥ 2 N/mm^2

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MULTIFILL-EPOXY THIXO

2-component colored epoxy grout and tile adhesive

Description

MULTIFILL-EPOXY THIXO is 2-component solvent-free epoxy grout. It has high compressive, flexural and adhesive strength. MULTI-FILL-EPOXY THIXO is resistant to several acids, alkalis, corrosive agents for concrete, cleaning agents, sea water and salted water.
Suitable for joint width 1,5-12 mm.
It is classified as type RG tile grout according to EN 13888 and as type R2T adhesive according to EN 12004.

Fields of application

MULTIFILL-EPOXY THIXO is applied wherever high strength to mechanical loads and resistance to chemical effects is required. It is ideally combined with special tiles for industrial use. It is suitable for fixing wall and floor tiles and for pointing wall tile joints in industrial areas like breweries, dairies, laboratories, slaughterhouses and in other sectors of food or chemical industries as well as in pools, kitchens etc.
It is also suitable for surfaces in direct contact with food products, according to W-347, EPA 330.5 and EPA 110.2.

Technical data

Base:	2-component epoxy resin
Colors:	white, grey, light grey, black, bahama beige, other colors by special order
Mixing proportion:	100:6,5 by weight
Density:	1,47 kg/lit at +23°C
Pot life:	approx. 45 min at +23°C
Cleaning:	in 45 min at +23°C
Walkability:	after 16 h at +23°C
Minimum hardening temperature:	+10°C
Partial loading:	after 48 h at +23°C
Full loading:	after 7 days at + 23°C
Compressive strength: (DIN EN 196-1)	45 N/mm^2
Flexural strength: (DIN EN 196-1)	30 N/mm^2
Abrasion resistance:	≤ 250 mm^3
Drying shrinkage:	≤ 1,5 mm/m
Water absorption after 240 min:	≤ 0,02 g
Initial shear adhesion strength:	>4,2 N/mm^2
Shear adhesion strength after thermal shock:	>2,8 N/mm^2
Shear adhesion strength after water immersion:	>3,6 N/mm^2
Slip:	≤ 0,5 mm

All measurements were conducted according to EN 13888 and EN 12004.

Cleaning of tools:
Tools should be cleaned thoroughly with water after any work interruption.

Directions for use

1. Mixing of the components
Components A (resin) and B (hardener) are packed in two separate containers, in pre-determined mixing proportion by weight.
The whole quantity of component B is added into component A. Mixing of the 2 components should take place for approx. 5 minutes, using a low revolution mixer (300 rpm). It is important to stir the mixture thoroughly near the sides and bottom of the container, to achieve uniform dispersion of the hardener.

MULTIFILL-EPOXY THIXO

2. Application procedure

Fixing of tiles

The resulting mixture should be spread on the substrate and “combed” using a notched trowel in order to be uniformly applied on the whole surface. The tiles should be fixed by pressing them in the desired position.

Pointing of tile joints

The dry and clean joints are filled with the mixture using a rubber float in a diagonal direction to the joints, in order to fill them completely and to remove the excessive material.The small quantity of the epoxy grout that remains on the tiles surface is emulsified by being rubbed with a slightly wetted hard sponge and it is wiped away immediately.
Subsequently, the tiles surface is cleaned again with a soft clean and slightly wetted sponge.
The use of lukewarm water makes cleaning easier. For even easier cleaning 10% spirit (by weight) may be added in the water used.

Consumption

The consumption depends on the tile dimensions and the joint width. Indicative cases are shown below:

Tiles dimensions (in cm)	Joint width			
	2 mm	3 mm	4 mm	5 mm
2 x 2 x 0,3	1.030	1.550	---	---
4,2 x 4,2 x 0,6	990	1.470	1.970	2.680
10 x 10 x 0,6	420	620	830	1.040
10 x 10 x 0,9	620	930	1.460	1.550
15 x 15 x 0,7	320	480	640	800
15 x 15 x 1,2	550	830	1.100	1.380
20 x 20 x 0,7	240	360	480	600
20 x 30 x 0,7	200	300	400	500
24 x 11,5 x 2,0	900	1.330	1.780	2.210
24 x 11,5 x 2,5	1.110	1.670	2.220	2.780
30 x 30 x 0,8	180	280	370	460

(Consumptions values in g/m^2)

Packaging

MULTIFILL-EPOXY THIXO is available in packages of 5 kg and 10 kg in pre-determined mixing proportion by weight. The container of component B is built in the container of component A.

Shelf-life - Storage

12 months from date of production if stored in original sealed packaging, in areas protected from humidity and direct sun exposure. Recommended storage temperature between +5°C and +35°C.

Remarks

- In low temperatures the material loses its good workability and reaction times increase. On the other hand, high temperatures reduce working time. The ideal temperature of application is between +15°C and +25°C, in order that the product has the most optimal workability and time of curing. In low temperatures (<+15°C) is observed delay on setting, while in higher (>+30°C), is observed acceleration. Is recommended a soft warm-up of materials on wintry months and respectively on summer their storage in cool place before use.
- MULTIFILL-EPOXY THIXO is completely safe for health after hardening.
- Consult the safety advice mentioned on the label before use.

Volatile organic compounds (VOCs)

According to the Directive 2004/42/CE (Annex II, table A), the maximum allowed VOC content for the product subcategory g, type SB is 350g/l (2010) for the ready to use product. The ready to use product MULTIFILL-EPOXY THIXO contains max <350 g/l VOC.

MULTIFILL-EPOXY THIXO

RESISTANCE TO CHEMICALS (according to ASTM D 543-84):

CURRING TIME OF SRECIMENTS: 7 DAYS

MULTIFILL-EPOXY WALL LIGHT GREY **WEIGHT VARIATION**

S/N	Test agent	Change per % (7 days)	Remarks	Change per % (28 days)	Remarks
1	Dense hydrochloric acid	- 1,02	Decoloring	- 3,56	Decoloring
2	30% sulphuric acid	+ 0,11	No consequence	+ 0,54	No consequence
3	5% acetic acid	+ 0,79	No consequence	+ 1,18	No consequence
4	5% lactic acid	+ 0,92	No consequence	+ 0,98	No consequence
5	60% sodium hydroxide	+ 0,06	No consequence	+ 0,18	No consequence
6	Ethanol	+ 0,65	No consequence	+ 2,54	No consequence
7	Xylene	+ 9,93	No consequence	+ 12,47	No consequence

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P.O. BOX 1043, 570 03 Ag. Athanasios, Greece

EN 12004

Improved reaction resin adhesive with reduced slip

- Reaction to fire	Class F
- Initial shear adhesion strength	≥ 2 N/mm^2
- Shear adhesion strength after thermal shock	≥ 2 N/mm^2
- Shear adhesion strength after water immersion	≥ 2 N/mm^2

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CE TÜV CERT EN ISO 9001

MULTIFILL-EPOXY FLOW

2-component epoxy grout-tile adhesive for floorings

Description

MULTIFILL-EPOXY FLOW is 2-component solvent-free epoxy grout. It has high compressive, flexural and adhesive strength. MULTI-FILL-EPOXY FLOW is resistant to several acids, alkalis, corrosive agents for concrete, cleaning agents, sea water and salted water. It has excellent workability (flowidity) for flooring applications and is easily cleaned with water before hardening. Suitable for joint width 1,5-12 mm.
It is classified as type RG tile grout according to EN 13888 and as type R2 adhesive according to EN 12004.

Fields of application

MULTIFILL-EPOXY FLOW is applied wherever high strength to mechanical loads and resistance to chemical effects is required. It is ideally combined with special tiles for industrial use. It is suitable for fixing floor tiles and for pointing floor tile joints in industrial areas like breweries, dairies, laboratories, slaughterhouses and in other sectors of food or chemical industries as well as in pools, kitchens etc.
It is also suitable for surfaces in direct contact with food products, according to W-347, EPA 330.5 and EPA 110.2.

Technical data

Base:	2-component epoxy resin
Colors:	light grey, other RAL colors by special order
Mixing proportion:	100:6,5 by weight
Density:	1,45 kg/lit at +23°C
Pot life:	approx. 45 min at +23°C
Cleaning:	in 45 min at +23°C
Walkability:	after 16 h at +23°C
Minimum hardening temperature:	+10°C
Partial loading:	after 48 h at +23°C
Full loading:	after 7 days at +23°C
Compressive strength: (DIN EN 196-1)	45 N/mm^2
Flexural strength: (DIN EN 196-1)	30 N/mm^2
Abrasion resistance:	≤ 250 mm^3
Drying shrinkage:	≤ 1,5 mm/m
Water absorption after 240 min:	≤ 0,02 g
Initial shear adhesion strength:	>5,3 N/mm^2
Shear adhesion strength after thermal shock:	>3,6 N/mm^2
Shear adhesion strength after water immersion:	>4,7 N/mm^2

All measurements were conducted according to EN 13888 and EN 12004.

Cleaning of tools:
Tools should be cleaned thoroughly with water after any work interruption.

Directions for use

1. Mixing of the components
Components A (resin) and B (hardener) are packed in two separate containers, in pre-determined mixing proportion by weight.
The whole quantity of component B is added into component A. Mixing of the 2 components should take place for approx. 5 minutes, using a low revolution mixer (300 rpm). It is important to stir the mixture thoroughly near the sides and bottom of the container, to achieve uniform dispersion of the hardener.

2. Application procedure
Fixing of tiles
The resulting mixture should be spread on the substrate and “combed” using a notched trowel in order to be uniformly applied on the whole surface. The tiles should be fixed by pressing them in the desired position.

MULTIFILL-EPOXY FLOW

Pointing of the tile joints
The resulting mixture is gradually poured in the dry and clean joints and it is spread using a rubber float in a diagonal direction to the joints, in order to fill them completely and to remove the excessive material.
The small quantity of the epoxy grout that remains on the floor tiles surface is emulsified by being rubbed with a slightly wetted hard sponge and it is wiped away immediately. Subsequently, the tiles surface is cleaned again with a soft clean and slightly wetted sponge. The use of lukewarm water makes cleaning easier. For even easier cleaning 10% spirit (by weight) may be added in the water used.

Consumption

The consumption depends on the tile dimensions and the joint width. Indicative cases are shown below:

Tiles dimensions (in cm)	Joint width			
	2 mm	3 mm	4 mm	5 mm
4,2 x 4,2 x 0,6	1.340	3.140	4.480	5.380
10 x 10 x 0,9	840	1.980	2.830	3.390
15 x 15 x 1,2	750	1.760	2.510	3.000
20 x 20 x 0,7	330	770	1.100	1.320
24 x 12 x 0,8	470	1.100	1.570	1.880
24 x 11,5 x 1,5	900	2.120	3.030	3.640
24 x 11,5 x 2,0	1.210	2.830	4.040	4.840
24 x 11,5 x 2,5	1.520	3.540	5.050	6.060
30 x 30 x 0,8	250	590	840	1.000
40 x 40 x 0,8	190	440	630	750
40 x 40 x 1,0	240	550	790	940
50 x 50 x 0,8	150	350	500	600

(Consumptions values in g/m^2)

Packaging

MULTIFILL-EPOXY FLOW is available in packages of 5 kg and 10 kg in pre-determined mixing proportion by weight. The container of component B is built in the container of component A.

Shelf-life - Storage

12 months from date of production if stored in original sealed packaging, in areas protected from humidity and direct sun exposure. Recommended storage temperature between +5°C and +35°C.

Remarks

- In low temperatures the material loses its good workability and reaction times increase. On the other hand, high temperatures reduce working time. The ideal temperature of application is between +15°C and +25°C, in order that the product has the most optimal workability and time of curing. In low temperatures (<+15°C) is observed delay on setting, while in higher (>+30°C), is observed acceleration. Is recommended a soft warm-up of materials on wintry months and respectively on summer their storage in cool place before use.
- MULTIFILL-EPOXY FLOW is completely safe for health after hardening.
- Consult the safety advice mentioned on the label before use.

Volatile organic compounds (VOCs)

According to the Directive 2004/42/CE (Annex II, table A), the maximum allowed VOC content for the product subcategory g, type SB is 350g/l (2010) for the ready to use product. The ready to use product MULTIFILL-EPOXY FLOW contains max <350 g/l VOC.

MULTIFILL-EPOXY FLOW

RESISTANCE TO CHEMICALS (according to ASTM D 543-84):

CURRING TIME OF SRECIMENTS: 7 DAYS

MULTIFILL-EPOXY WALL LIGHT GREY **WEIGHT VARIATION**

S/N	Test agent	Change per % (7 days)	Remarks	Change per % (28 days)	Remarks
1	Dense hydrochloric acid	- 0,08	Decoloring	+ 1,10	Decoloring
2	30% sulphuric acid	+ 0,54	Decoloring	+ 1,68	Decoloring
3	5% acetic acid	+ 0,67	No consequence	+ 1,25	No consequence
4	5% lactic acid	+ 0,57	Slight decoloring	+ 0,94	Slight decoloring
5	60% sodium hydroxide	+ 0,31	No consequence	+ 1,13	No consequence
6	Ethanol	+ 1,33	No consequence	+ 3,00	No consequence
7	Xylene	+ 2,12	No consequence	+ 7,88	No consequence

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17th km Thessaloniki - Ag. Athanasios,
P.O. BOX 1043, 570 03 Ag. Athanasios, Greece

EN 12004

Improved reaction resin adhesive

- Reaction to fire	Class F
- Initial shear adhesion strength	≥ 2 N/mm^2
- Shear adhesion strength after thermal shock	≥ 2 N/mm^2
- Shear adhesion strength after water immersion	≥ 2 N/mm^2

The technical information and instructions supplied in this datasheet are based on the knowledge and experience of the department of Research and Development of our company and on results from long-term applications of the product in practice. The recommendations and suggestions referring to the use of the product are provided without guarantee, since site conditions during the applications are beyond the control of our company. Therefore the user is responsible for confirming that the chosen product is suitable for the envisaged application. The present edition of this technical data sheet automatically cancels any previous one concerning the same product.

CE TÜV CERT EN ISO 9001

MULTIFILL-EPOXY GLITTER

2-component, decorative epoxy grout

Description

MULTIFILL-EPOXY GLITTER is a 2 component solvent-free epoxy grout. It has high compressive, flexural and adhesive strength. With the addition of the special glitter ISOMAT GLITTER into MULTIFILL EPOXY GLITTER, is created a grout with particular aesthetic metalized effect. MULTIFILL-EPOXY GLITTER is resistant to several acids, alkalis, corrosive agents for concrete, cleaning agents, sea water and salted water. It has excellent workability and is easily cleaned with water before hardening. Suitable for joint width 1,5-12 mm. Classified as a RG tile grout according to EN 13888.

Fields of application

MULTIFILL-EPOXY GLITTER is applied to achieve a grout with special aesthetic finish, due to the reflection of light caused by the special glitters ISOMAT-GLITTER. Furthermore it is used wherever high chemical resistance and mechanical strength is required. It is ideally combined with glass mosaic tiles and with high chemical resistant tiles. It is suitable for pointing wall or floor tile joints in residences, restaurants, showrooms, commercial areas, industrial areas etc.

Technical data

Base:	2-component epoxy resin
Colors:	10 selected
Mixing proportion (A:B):	100:7 by weight
Density (A+B+Glitter):	1,35 kg/l at +23^{0}C
Pot life:	approx. 45 min at +23^{0}C
Cleaning:	in 45 min at +23^{0}C
Walkability:	after 16 h at +23^{0}C
Minimum hardening temperature:	+10^{0}C
Partial loading:	after 48 h at +23^{0}C
Full loading:	after 7 days at +23^{0}C
Compressive strength:	49 N/mm^{2}
Flexural strength:	30 N/mm^{2}
Wear resistance:	≤ 210 mm^{3}
Shrinkage:	≤ 0,4 mm/m
Water absorption after 240 min:	≤ 0,02 g
Adhesive strength:	> 3 N/mm^{2} (breaking point of concrete)

Cleaning of tools:
Tools should be cleaned thoroughly with water after any work interruption.

Directions for use

1. Mixing of the components
Components A (resin) and B (hardener) are packed in two separate containers, in pre-determined mixing proportion by weight.
The whole quantity of component B is added into component A. Mixing of the 2 components should take place for approx. 3 minutes, using a low revolution mixer (300 rpm). It is important to stir the mixture thoroughly near the sides and bottom of the container, to achieve uniform dispersion of the hardener. Next, the glitter ISOMAT GLITTER is added, 10% by weight of MULTIFILL EPOXY GLITTER (Each 2 kg package of MULTIFILL EPOXY GLITTER is mixed with one package of 200 g of ISOMAT GLITTER) and continue to stir until the glitter is uniformly dispersed in the mixture.

2. Application procedure

Pointing of the tile joints
The resulting mixture is gradually poured in the dry and clean joints and it is spread using a rubber float in a diagonal direction to the joints, in order to fill them completely and to remove the excessive material.

MULTIFILL-EPOXY GLITTER

Cleaning of the tile surface
The small quantity of the epoxy grout that remains on the floor tiles surface is emulsified by being rubbed with a slightly wetted hard sponge and it is wiped away immediately. Subsequently, the tiles surface is cleaned again with a soft clean and slightly wetted sponge. The use of lukewarm water makes cleaning easier. For even easier cleaning 10% spirit (by weight) may be added in the water used.

Consumption

The consumption depends on the tile dimensions and the joint width. Indicative cases are shown below:

Tiles dimensions (in cm)	Joint width			
	3 mm	7 mm	10 mm	12 mm
4,2 x 4,2 x 0,6	1.160	2.700	3.860	4.630
10 x 10 x 0,9	730	1.700	2.430	2.920
15 x 15 x 1,2	650	1.510	2.160	2.590
20 x 20 x 0,7	280	660	950	1.130
24 x 12 x 0,8	410	950	1350	1.620
24 x 11,5 x 1,5	780	1.820	2.600	3.130
24 x 11,5 x 2,0	1.040	2.430	3.470	4.170
24 x 11,5 x 2,5	1.300	3.040	4.340	5.210
30 x 30 x 0,8	220	500	720	860
40 x 40 x 0,8	160	380	540	650
40 x 40 x 1,0	200	470	680	810
50 x 50 x 0,8	130	300	430	520

(Consumptions values in g/m^2)

Packaging

MULTIFILL-EPOXY GLITTER is available in packages of 2 kg (A+B) and ISOMAT GLITTER in packages of 200 g. A and B components are in pre-determined mixing proportion by weight. The container of component B is built in the container of component A.

Shelf-life - Storage

12 months from date of production if stored in original sealed packaging, in areas protected from humidity and direct sun exposure. Recommended storage temperature between +5°C and +35°C.

Remarks

- In low temperatures the material loses its good workability and reaction times increase. On the other hand, high temperatures reduce working time. The ideal temperature of application is between +15°C and +25°C, in order that the product has the most optimal workability and time of curing. In low temperatures (<+15°C) is observed delay on setting, while in higher (>+30°C), is observed acceleration. Is recommended a soft warm-up of materials on wintry months and respectively on summer their storage in cool place before use.
- MULTIFILL-EPOXY GLITTER is completely safe for health after hardening.
- Consult the safety advice mentioned on the label before use.

Volatile organic compounds (VOCs)

According to the Directive 2004/42/CE (Annex II, table A), the maximum allowed VOC content for the product subcategory g, type SB is 350g/l (2010) for the ready to use product. The ready to use product MULTIFILL-EPOXY GLITTER contains max <350 g/l VOC.

ISOMAT GLITTER

Colored metallic aggregates

Description

Colored metallic aggregates which when added to the epoxy grout MULTIFILL-EPOXY GLITTER a colored, decorative grout with particular aesthetic effect is created. ISOMAT-GLITTER is added in a proportion of up to 10% by weight.

Colors

100 Silver
110 Green
120 Turquoise
130 Violet
140 Pink
150 Red
160 Red Brown
170 Bronze
180 Beige
190 Gold

Packaging

ISOMAT-GLITTER is available in plastic containers of 200 gr.

MULTIFILL-ELASTIC

Colored elastic tile joint sealant

Description

Colored, elastic, one component joint sealant. It offers high elasticity, excellent adhesion to the substrate and resistance to moisture, temperature variations (-40°C to +150°C) and weather exposure.
Suitable for joint width 3-40 mm.

Fields of application

MULTIFILL-ELASTIC is used for pointing tile joints on walls or floors, especially where high elasticity is required (expansion joints etc.). Suitable for indoor and outdoor applications.

Technical data

Basis:	polymer resin
Application temperature:	+5°C to +40°C
Skin formation:	after 10-20 min
Hardening time:	2-3 mm/day
Elastic modulus (ISO 8339):	0,60 N/mm^2
Joint movement capability:	± 25%
Elastic recovery:	approx. 90%
Hardness (Shore A):	25

Colors

MULTIFILL-ELASTIC is available in the following colors specified by the corresponding code No of the MULTIFILL color range: White (No 01), Grey (No 03), Light grey (No 05), Dark grey (No 10), Bahama beige (No 06), Anemone (No 17), Caramel (No 21).

Directions for use

1. Substrate
The joint must be clean, dry and free from dust, oil, grease etc. To avoid undesirable soiling at joint edges, a self-adhesive paper-tape is applied alongside the joint edges.

2. Application
The cartridge is inserted in the special gun and the nozzle is cut slantwise, so as not to fit into, but just touch and slide along joint's edges. MULTIFILL-ELASTIC is applied by driving the cartridge alongside the joint axis at a 45° angle. While material is still fresh, the joint is sprayed with water and its surface is finally smoothed with finger. The self-adhesive paper-tape should be removed immediately after application.

Consumption

Joint 5 mm x 5 mm: 1 cartridge / 11,2 m of joint length.

Packaging

MULTIFILL-ELASTIC is available in 280 ml cartridges.

Shelf-life - Storage

Shelf-life is 12 months, in dry and frost-free conditions.

Remarks

- MULTIFILL-ELASTIC should be tested before use in surfaces where bleeding of grease may occur (e.g. marble, granites).
- It is not recommended for joints under permanent water pressure (e.g. water tanks, swimming pools).

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TÜV CERT EN ISO 9001

MULTIFILL 2-5

Tile grout

Description

MULTIFILL 2-5 is a cement-based, colored tile grout. It offers high mechanical strength and color stability. Suitable for joint width 2-5 mm. It is classified as type CG2 WA tile grout according to EN 13888.

Fields of application

MULTIFILL 2-5 is used for pointing tile joints on walls or floors, for indoor and outdoor applications.

Technical data

Form:	cementitious powder
Colors:	34
Water demand:	6,50 l/25 kg bag
Bulk density of dry mortar:	1,25 ± 0,40 kg/lit
Bulk density of fresh mortar:	1,60 ± 0,50 kg/lit
Application temperature:	from +5°C to +35°C
Abrasion resistance:	≤ 1000 mm³
Compressive strength after:	
• 28 days:	40,00 N/mm²
• 25 freeze-thaw cycles:	40,00 N/mm²
Flexural strength after:	
• 28 days:	6,00 N/mm²
• 25 freeze-thaw cycles:	5,00 N/mm²
Drying shrinkage:	≤ 2mm/m
Water absorption after:	
• 30 min:	≤ 2 g
• 240 min:	≤ 5 g
Pot life:	at least 4 h at +20°C
Walkability:	after 10 h at +20°C

Directions for use

1. Substrate
The substrate covered with tiles should be perfectly clean. The joints should be carefully cleaned and dampened with a wet sponge.

2. Application
MULTIFILL 2-5 is added to water under continuous stirring, until a uniform paste is formed. A low revolution mixer is recommended for the mixing.
The mixture should be left about 10 minutes to settle and then slightly stirred again.
Spread the grout on to the joints, using a rubber float in a diagonal direction to the joints, in order to fill them completely. The excess material should be wiped after a while, using a wet sponge. Finally, the surface may be cleaned with a dry cloth.
Outdoors or at high temperatures repeated dampening is recommended after a few hours and when the grout has dried.

Consumption

The consumption of MULTIFILL 2-5 depends on the tile dimensions and the joint width. The following cases are mentioned indicatively (values in g/m²):

Tile Dimensions (cm)	Joint width			
	2 mm	3 mm	4 mm	5 mm
2 x 2 x 0,3	1.000	1.500	---	---
10 x 10 x 0,6	400	600	800	1.000
15 x 15 x 0,7	310	470	630	780
20 x 20 x 0,7	240	360	480	590
20 x 30 x 0,7	200	300	400	490
30 x 30 x 0,8	190	280	370	460

MULTIFILL 2-5

Packaging - Colors

MULTIFILL 2-5 is available in the following 34 colors, with the corresponding code No. and packaging (2 kg, 5 kg and 25 kg bags):

Color	2 kg	5 kg	25 kg
01 White	•	•	•
02 Black	•	•	
03 Grey	•	•	•
04 Pearl grey	•	•	
05 Light grey	•	•	•
06 Bahama beige	•	•	•
07 Redbrown	•	•	
08 Brown	•	•	
09 Light brown	•	•	
10 Dark grey	•	•	•
11 Ivory	•	•	
12 Purple	•	•	
13 Red	•	•	
14 Cotto	•	•	
15 Manhattan grey	•	•	
16 Light ochre	•	•	
17 Anemone	•	•	
18 Pearl beige	•	•	
19 Mocha	•	•	
20 Maroon	•	•	
21 Caramel	•	•	•
22 Magnolia	•	•	
23 Oregon	•	•	
24 Cinnamon	•	•	
25 Crocus	•	•	
26 Green	•	•	
27 Orange	•	•	
30 Cement grey	•	•	•
31 Ceramic	•	•	
32 Mykonos blue	•	•	
33 Yellow	•	•	
34 Mint	•	•	
35 Tropical sea	•	•	
36 Cypress	•	•	

Sets of realistic MULTIFILL samples are available.

Shelf-life - Storage

12 months from production date if stored in original, unopened packaging, in places protected from moisture and frost.

Remarks

- MULTIFILL 2-5 contains cement and reacts as alkaline with moisture, so it is classified as irritant.
- Consult usage risks and safety advice written on the bag.

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TÜV CERT EN ISO 9001

MULTIFILL 3-15

Tile grout

Description

MULTIFILL 3-15 is a cement-based, colored tile grout. It offers high mechanical strength and color stability. Suitable for joint width 3-15 mm. It is classified as type CG2 WA tile grout according to EN 13888.

Fields of application

MULTIFILL 3-15 is used for pointing tile joints on walls or floors, for indoor and outdoor applications.

Technical data

Form:	cementitious powder
Colors:	20
Water demand:	6,75 l/25 kg bag
Bulk density of dry mortar:	1,50 ± 0,30 kg/lit
Bulk density of fresh mortar:	2,00 ± 0,50 kg/lit
Application temperature:	from +5^{0}C to +35^{0}C
Abrasion resistance:	≤ 1000 mm^3
Compressive strength after:	
• 28 days:	38,00 N/mm^2
• 25 freeze-thaw cycles:	38,00 N/mm^2
Flexural strength after:	
• 28 days:	7,50 N/mm^2
• 25 freeze-thaw cycles:	7,50 N/mm^2
Drying shrinkage:	≤ 2mm/m
Water absorption after:	
• 30 min:	≤ 2 g
• 240 min:	≤ 5 g
Pot life:	at least 4 h at +20^{0}C
Walkability:	after 10 h at +20^{0}C

Directions for use

1. Substrate
The substrate covered with tiles should be perfectly clean. The joints should be carefully cleaned and dampened with a wet sponge.

2. Application
MULTIFILL 3-15 is added to water under continuous stirring, until a uniform paste is formed. A low revolution mixer is recommended for the mixing.
The mixture should be left about 10 minutes to settle and then slightly stirred again.
Spread the grout on to the joints, using a rubber float in a diagonal direction to the joints, in order to fill them completely. The excess material should be wiped after a while, using a wet sponge. Finally, the surface may be cleaned with a dry cloth.
Outdoors or at high temperatures repeated dampening is recommended after a few hours and when the grout has dried.

Consumption

The consumption of MULTIFILL 3-15 depends on the tile dimensions and the joint width. The following cases are mentioned indicatively (values in g/m^2):

Tile Dimensions (cm)	Joint width			
	3 mm	7 mm	12 mm	15 mm
20 x 20 x 0,7	390	900	1.540	1.930
30 x 30 x 0,8	300	700	1.190	1.480
40 x 40 x 0,8	230	530	900	1.120
40 x 40 x 1,0	280	660	1.120	1.400
50 x 50 x 0,8	180	420	730	900

MULTIFILL 3-15

Packaging - Colors

MULTIFILL 3-15 is available in the following 20 colors, with the corresponding code No. and packaging (5 kg and 25 kg bags):

Color	5 kg	25 kg
01 White	•	•
02 Black	•	
03 Grey	•	•
04 Pearl grey	•	
05 Light grey	•	•
06 Bahama beige	•	•
07 Redbrown	•	
08 Brown	•	
09 Light brown	•	
10 Dark grey	•	
11 Ivory	•	
14 Cotto	•	
16 Light ochre	•	
17 Anemone	•	
18 Pearl beige	•	
20 Maroon	•	
21 Caramel	•	•
23 Oregon	•	
30 Cement grey	•	
31 Ceramic	•	

Sets of realistic MULTIFILL samples are available.

Shelf-life - Storage

12 months from production date if stored in original, unopened packaging, in places protected from moisture and frost.

Remarks

- MULTIFILL 3-15 contains cement and reacts as alkaline with moisture, so it is classified as irritant.
- Consult usage risks and safety advice written on the bag.

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TÜV CERT EN ISO 9001

MULTIFILL-RAPID 1-8

Rapid setting tile grout, with porcelain effect, water-repellent

Description

MULTIFILL RAPID 1-8 is a colored, rapid setting, cement based tile grout enriched with resins. It offers high mechanical strength, superb color stability and great water-repellence. It gives a smooth and glossy final surface. Due to its low capillary absorption it is easy to clean from stains/ dirt. Suitable for joint width from 1 up to 8 mm.
It is classified as type CG2 WA tile grout according to EN 13888.

Fields of application

MULTIFILL RAPID 1-8 is used for pointing tile joints on walls or floors, for indoor and outdoor applications. Ideal when the wall or floor has to be delivered fast for use, e.g. work areas etc.

Technical data

Form:	cementitious powder
Colors:	8
Water demand:	1,00 l/4 kg bag
Bulk density of dry mortar:	1,10 ± 0,10 kg/l
Bulk density of fresh mortar:	1,80 ± 0,10 kg/lit
Application temperature:	from +5°C to +35°C
Abrasion resistance:	≤ 81 mm^3
Compressive strength:	29,60 N/mm^2
Compressive strength (freeze-thaw cycles):	26,00 N/mm^2
Flexural strength:	7,80 N/mm^2
Flexural strength (freeze-thaw cycles):	6,75 N/mm^2
Drying shrinkage:	≤ 2 mm/m
Water absorption after:	
• 30 min:	≤ 0,26 g
• 240 min:	≤ 0,54 g
Pot life:	approx. 30' at +20°C
Walkability:	after 2 h at +20°C

Directions for use

1. Substrate
The substrate covered with tiles should be perfectly clean. The joints should be carefully cleaned and dampened with a wet sponge.

2. Application
MULTIFILL RAPID 1-8 is added to water under continuous stirring, until a uniform paste is formed. A low revolution mixer is recommended for the mixing.
Spread the grout on to the joints, using a rubber float in a diagonal direction to the joints, in order to fill them completely. The excess material should be wiped after a while, using a wet sponge. Finally, the surface may be cleaned with a dry cloth. The grout must be used within 10-15 minutes after it has been mixed with water.
Outdoors or at high temperatures repeated dampening is recommended after a few hours and when the grout has dried.

Consumption

The consumption of MULTIFILL RAPID 1-8 depends on the tile dimensions and the joint width. The following cases are mentioned indicatively (values in g/m^2):

Tile Dimensions (cm)	Joint width			
	2 mm	4 mm	6 mm	8 mm
2 x 2 x 0,3	750	1500	....	....
10 x 10 x 0,6	300	600	900	1.210
15 x 15 x 0,7	240	470	710	950
20 x 20 x 0,8	180	360	540	720
30 x 30 x 0,8	140	280	410	550
40 x 40 x 0,8	100	210	320	420
50 x 50 x 0,8	90	170	260	340

MULTIFILL-RAPID 1-8

Packaging - Colors

MULTIFILL RAPID 1-8 is available in the following 8 colors, with the corresponding code No. and packaging:

Color	4 kg
01 White	•
03 Grey	•
05 Light grey	•
06 Bahama beige	•
10 Dark grey	•
15 Manhattan grey	•
17 Anemone	•
30 Cement grey	•

Sets of realistic MULTIFILL samples are available.

Shelf-life - Storage

12 months from production date if stored in original, unopened packaging, in places protected from moisture and frost.

Remarks

- MULTIFILL RAPID 1-8 contains cement and reacts as alkaline with moisture, so it is classified as irritant.
- Consult usage risks and safety advice written on the bag.

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TÜV CERT EN ISO 9001

MULTIFILL-STONE

Colored, polymer-modified cement mortar for building and grouting stone

Description

Colored, polymer-modified cement mortar for building and grouting natural or artificial stone. It provides high mechanical properties and exceptional color stability. Suitable for joint width 5-40mm.
It is classified as type CG2 WA grout according to EN 13888 and it is certified with the CE marking, according to EN 998-2, as a designed general purpose masonry mortar, for external use, in elements subject to structural requirements. Certificate number: 0906-CPD-02412008

Fields of application

MULTIFILL-STONE is suitable for building and grouting every kind of stone, on wall or floor. For indoor or outdoor applications.

Technical data

Base:	cementitious powder
Colors:	white (01), grey (03), bahama beige (06), dark grey (10) light ochre (16)
Water demand:	4,25 l/25 kg bag
Maximum particle size:	1,3mm
Bulk density of dry mortar:	1,50 kg/lit
Bulk density of fresh mortar :	1,85 kg/lit
Application temperature:	from +5ºC to +35ºC
Abrasion resistance:	≤ 250 mm^3
Compressive strength after:	
• 28 days:	18,00 N/mm^2
• 25 freeze-thaw cycles:	18,00 N/mm^2
Flexural strength after:	
• 28 days:	6,00 N/mm^2
• 25 freeze-thaw cycles:	6,00 N/mm^2
Drying shrinkage:	⩽ 1 mm/m
Water absorption after:	
• 30 min:	≤ 0,5 g
• 240 min:	≤ 1,5 g
Pot life:	at least 4,5 h at +20ºC
Walkability:	after 24 h at +20ºC

Directions for use

MULTIFILL-STONE is added into water under continuous stirring, until a uniform paste is formed. A low-revolution mixer is recommended for mixing.
The mixture should be left about 5 minutes to settle and should be stirred again.
As building material the mortar is applied using a trowel. The grouting is done while building, using the material that overflows. Afterwards and when it is necessary the grouts are completely filled with MULTIFILL- STONE using a thin metallic trowel. The excess material is removed using a wet sponge.

Consumption

Depending on the dimensions of stone and depending on the width and depth of the joint.

Packaging

MULTIFILL STONE is supplied in paper bags of 25 kg.

Shelf-life - Storage

12 months from production date if stored in original, unopened packaging, in places protected from moisture and frost.

Remarks

• MULTIFILL-STONE contains cement and reacts as alkaline with moisture, so it is classified as irritant.
• Consult the safety advice and precautions written on the packaging.

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MULTIFILL SMALTO 1-8

Tile grout with porcelain effect, water-repellent

Description

MULTIFILL SMALTO 1-8 is a colored, cement based tile grout enriched with resins. It offers high mechanical strength, superb color stability and great water-repellence. Contains special bacteriostatic agents, which block the formation of bacteria on the grout. It gives a smooth and glossy final surface.
Suitable for joint width 1-8 mm.
It is classified as type CG2 WA tile grout according to EN 13888.

Fields of application

MULTIFILL SMALTO 1-8 is used for pointing tile joints on walls or floors, for indoor and outdoor applications.

Technical data

Form:	cementitious powder
Colors:	34
Water demand:	1,10 l/4 kg bag
Bulk density of dry mortar:	1,18 ± 0,05 kg/lit
Bulk density of fresh mortar:	1,95 ± 0,05 kg/lit
Application temperature:	from +5°C to +35°C
Abrasion resistance:	≤ 1000 mm^3
Compressive strength:	30,00 N/mm^2
Flexural strength:	7,50 N/mm^2
Drying shrinkage:	≤ 2mm/m
Water absorption after:	
• 30 min:	≤ 2 g
• 240 min:	≤ 5 g
Pot life:	at least 2 h at +20°C
Walkability:	after 10 h at +20°C

Directions for use

1. Substrate
The substrate covered with tiles should be perfectly clean. The joints should be carefully cleaned and dampened with a wet sponge.

2. Application
MULTIFILL SMALTO 1-8 is added to water under continuous stirring, until a uniform paste is formed. A low revolution mixer is recommended for the mixing.
The mixture should be left about 10 minutes to settle and then slightly stirred again.
Spread the grout on to the joints, using a rubber float in a diagonal direction to the joints, in order to fill them completely. The excess material should be wiped after a while, using a wet sponge. Finally, the surface may be cleaned with a dry cloth.
Outdoors or at high temperatures repeated dampening is recommended after a few hours and when the grout has dried.

Consumption

The consumption of MULTIFILL SMALTO 1-8 depends on the tile dimensions and the joint width. The following cases are mentioned indicatively (values in g/m^2):

Tile Dimensions (cm)	Joint width			
	2 mm	4 mm	6 mm	8 mm
2 x 2 x 0,3	750	1.500	---	---
10 x 10 x 0,6	300	600	900	1.210
15 x 15 x 0,7	240	470	710	950
20 x 20 x 0,7	180	360	540	720
30 x 30 x 0,8	140	280	410	550
40 x 40 x 0,8	100	210	320	420
50 x 50 x 0,8	90	170	260	340

MULTIFILL SMALTO 1-8

Packaging - Colors

MULTIFILL SMALTO 1-8 is available in the following 34 colors, with the corresponding code No. and packaging (2 kg, 4 kg and 20 kg bags):

Color	2 kg	4 kg	20 kg
01 White	•	•	•
02 Black	•	•	
03 Grey	•	•	•
04 Pearl grey	•	•	
05 Light grey	•	•	•
06 Bahama beige	•	•	•
07 Redbrown	•	•	
08 Brown	•	•	
09 Light brown	•	•	
10 Dark grey	•	•	•
11 Ivory	•	•	
12 Purple	•	•	
13 Red	•	•	
14 Cotto	•	•	
15 Manhattan grey	•	•	
16 Light ochre	•	•	
17 Anemone	•	•	
18 Pearl beige	•	•	
19 Mocha	•	•	
20 Maroon	•	•	
21 Caramel	•	•	•
22 Magnolia	•	•	
23 Oregon	•	•	
24 Cinnamon	•	•	
25 Crocus	•	•	
26 Green	•	•	
27 Orange	•	•	
30 Cement grey	•	•	•
31 Ceramic	•	•	
32 Mykonos blue	•	•	
33 Yellow	•	•	
34 Mint	•	•	
35 Tropical sea	•	•	
36 Cypress	•	•	

Sets of realistic MULTIFILL samples are available.

Shelf-life - Storage

12 months from production date if stored in original, unopened packaging, in places protected from moisture and frost.

Remarks

- MULTIFILL SMALTO 1-8 contains cement and reacts as alkaline with moisture, so it is classified as irritant.
- Consult usage risks and safety advice written on the bag.

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TÜV CERT EN ISO 9001

MULTIFILL MARBLE 0-3

Fine-grained grout for marbles, with porcelain effect, water-repellent

Description

MULTIFILL MARBLE 0-3 is a colored, cement based and enriched with resins grout, for marbles, granites and tiles. It offers high mechanical strength, superb color stability and great water-repellence. It gives a smooth and glossy final surface. Suitable for joint width 0-3 mm.
It is classified as a CG2 WA tile grout according to EN 13888.

Fields of application

MULTIFILL MARBLE 0-3 is used for pointing marble, granite, tile and glass mosaic joints, on walls or floors, for indoor and outdoor applications including swimming pools.

Technical data

Form:	cementitious powder
Colors:	34
Water demand:	1,30 l/4 kg bag
Bulk density of dry mortar:	0,92 ± 0,10 kg/lit
Bulk density of fresh mortar:	1,75 ± 0,10 kg/lit
Application temperature:	from +5°C to +35°C
Abrasion resistance:	≤ 1000 mm³
Compressive strength after:	
• 28 days:	30,00 N/mm²
• 25 freeze-thaw cycles:	27,00 N/mm²
Flexural strength after:	
• 28 days:	9,00 N/mm²
• 25 freeze-thaw cycles:	8,00 N/mm²
Drying shrinkage:	≤ 3 mm/m
Water absorption after:	
• 30 min:	≤ 2 g
• 240 min:	≤ 5 g
Pot life:	60 min at +20°C
Walkability:	after 8-10 h at +20°C

Directions for use

1. Substrate
The substrate covered with marbles or tiles should be perfectly clean. The joints should be carefully cleaned and dampened with a wet sponge.

2. Application
MULTIFILL MARBLE 0-3 is added to water under continuous stirring, until a uniform paste is formed. A low revolution mixer is recommended for the mixing.
The mixture should be left about 10 minutes to settle and then slightly stirred again.
Spread the grout on to the joints, using a rubber float in a diagonal direction to the joints, in order to fill them completely. The excess material should be wiped after a while, using a wet sponge. Finally, the surface may be cleaned with a dry cloth.
Outdoors or at high temperatures repeated dampening is recommended after a few hours and when the grout has dried.

Consumption

The consumption of MULTIFILL MARBLE 0-3 depends on the tile dimensions and the joint width. The following cases are mentioned indicatively (values in g/m²):

Tile Dimensions (cm)	Joint width		
	1 mm	2 mm	3 mm
2 x 2 x 0,3	0,40	0,79	1,19
10 x 10 x 0,6	0,16	0,32	0,48
15 x 15 x 0,7	0,12	0,25	0,37
20 x 20 x 0,7	0,09	0,18	0,28
20 x 30 x 0,7	0,08	0,15	0,23
30 x 30 x 0,8	0,07	0,14	0,21

MULTIFILL MARBLE 0-3

Packaging - Colors

MULTIFILL MARBLE 0-3 is available in the following 5 colors, with the corresponding code No. and packaging:

Color	4 kg
01 White	•
02 Black	•
05 Light grey	•
06 Bahama beige	•
11 Ivory	•

Sets of realistic MULTIFILL samples are available.

Shelf-life - Storage

18 months from production date if the product is stored in original unopened packaging, in places protected from moisture and frost.

Remarks

- MULTIFILL MARBLE 0-3 contains cement and reacts as alkaline with moisture, so it is classified as irritant.
- Consult usage risks and safety advice written on the bag.

Τα τεχνικά δεδομένα και οι οδηγίες που περιλαμβάνονται σε αυτό το τεχνικό φυλλάδιο είναι αποτέλεσμα της γνώσης και της εμπειρίας από το τμήμα έρευνας και ανάπτυξης της εταιρείας, καθώς και από την εφαρμογή του προϊόντος στην πράξη. Οι συστάσεις και οι προτάσεις σχετικά με την χρήση των υλικών γίνονται χωρίς εγγύηση, αφού οι εκάστοτε συνθήκες κατά την εφαρμογή τους είναι πέρα του ελέγχου της εταιρείας μας. Για τον λόγο αυτό είναι ευθύνη του χρήστη να βεβαιωθεί πως το υλικό είναι κατάλληλο για την προβλεπόμενη εφαρμογή και τις συνθήκες του έργου. Η έκδοση του παρόντος τεχνικού φυλλαδίου ακυρώνει κάθε άλλη προηγούμενη έκδοση για το ίδιο προϊόν.

TÜV CERT EN ISO 9001

ISOMAT AK-THERMO

Fibre-reinforced adhesive for thermo-insulation boards

Description

ISOMAT AK-THERMO is a fibre-reinforced cement-based adhesive, enriched with polymers (resins). It provides high initial and final adhesive strength, elasticity and resistance to moisture.
It is classified as a GP CS IV W2 rendering mortar according to EN 998-1 and as a C2E adhesive according to EN 12004.

Fields of application

ISOMAT AK-THERMO is used in combination with MARMOCRET PLUS and MARMOCRYL renders as a system for creating external thermo-insulated facades.
It is suitable for fixing thermo-insulation boards of extruded or expanded polystyrene, mineral wool, polyurethane, cork, etc. on facades made of concrete, render, or masonry.
Moreover, when reinforced with fibreglass mesh and applied on the exterior side of fixed thermo-insulation boards, it constitutes the ideal substrate for the subsequent render layer.

Technical data

Form:	cementitious mortar
Color:	white
Water demand:	6,25 l/25 kg bag
Bulk density of dry mortar:	1,40 ± 0,10 kg/l
Bulk density of fresh mortar:	1,55 ± 0,10 kg/l
Application temperature:	from +5°C to +35°C
Pot life:	at least 6 h
Open time:	at least 20 min
Compressive strength:	15,60 ± 1,00 N/mm^2
Flexural strength:	5,50 ± 0,50 N/mm^2
Adhesion on concrete (28 days):	≥ 2,00 N/mm^2
Adhesion on XPS (28days):	≥ 0,35 N/mm^2
Adhesion on EPS (28 days):	≥ 0,10 N/mm^2 (EPS failure)
Capillary water absorption:	≤ 0,2 kg/m^{2}min^{0,5}
Thermal conductivity ($\lambda_{10,dry}$):	0,43 W/mK
Water vapour permeability coefficient (μ):	5/20

Directions for use

1. Substrate
The surface to be covered with boards should be free of dust, grease, loose particles, paints etc. It is recommended that it is dampened before application.

2. Application

As adhesive:
ISOMAT AK-THERMO is gradually added into water under continuous stirring until a homogeneous paste is formed. A low revolution mixer is recommended for mixing. The mixture should be left for about 10 minutes to rest and then should be re-stirred a bit.
On smooth substrates the adhesive is spread on the surface and combed using a notched trowel in order to be uniformly applied on the whole of the surface.
On uneven substrates the adhesive is applied with a trowel around the perimeter of the thermo-insulation board and in selected spots in the center.
Next, the thermo-insulation boards are fixed by pressing them on the desired position.

As reinforced mortar:
Initially the material is applied with a smooth trowel in a maximum thickness of 3 mm. On the still fresh layer the fiberglass mesh is placed and pressed with the trowel to get fully encased in the adhesive. Finally, the surface is smoothed out and the excess adhesive is removed.

ISOMAT AK-THERMO

Consumption

As adhesive: 2,0-4,0 kg/m², depending on the trowel's notch size and the nature of the substrate.
As reinforced mortar: approx. 1,5 kg/m²/mm.

Packaging

ISOMAT AK-THERMO is supplied in paper bags of 25 kg.

Shelf-life - Storage

12 months from production date if stored in original, unopened packaging, in places protected from moisture and frost.

Remarks

- ISOMAT AK-THERMO contains cement and reacts as alkaline with moisture, so it is classified as irritant.
- Very porous surfaces such as aerated concrete, gypsum boards, chipboards etc. must be primed first with the acrylic primer UNI-PRIMER.
- Consult usage risks and safety advice written on the bag.

CE

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ISOMAT S.A.
17th km Thessaloniki - Ag. Athanasios,
P.O. BOX 1043, 570 03 Ag. Athanasios, Greece

EN 12004
Improved, cementitious adhesive for tiling with extended open time

CE

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ISOMAT S.A.
17th km Thessaloniki - Ag. Athanasios,
P.O. BOX 1043, 570 03 Ag. Athanasios, Greece

EN 998-1
General purpose rendering mortar (GP) for external use

Reaction to fire: Class A1
Adhesion: 2,0 N/mm² – FP: A
Water absorption: W2
Water vapour diffusion coeff.: μ 5/20
Thermal conductivity: ($\lambda_{10,dry}$) 0,43 W/mK
Durability (against freeze/thaw): evaluation based on provisions valid in the intended place of use of the mortar

The technical information and instructions supplied in this datasheet are based on the knowledge and experience of the department of Research and Development of our company and on results from long-term applications of the product in practice. The recommendations and suggestions referring to the use of the product are provided without guarantee, since site conditions during the applications are beyond the control of our company. Therefore the user is responsible for confirming that the chosen product is suitable for the envisaged application. The present edition of this technical data sheet automatically cancels any previous one concerning the same product.

ISOMAT AK-THERMO ACRYL

Acrylic reinforcing pasty coating for thermo-insulation boards

Description

ISOMAT AK-THERMO ACRYL is a ready to use, pasty, fiber-reinforced coating, based on acrylic resins. It provides high initial and final bond strength, high elasticity and resistance to moisture. It accelerates and simplifies the application.
Certified with the CE marking according to EN 15824 as a V2, W3 render and according to EN 12004 as a D2E adhesive.

Fields of application

ISOMAT AK-THERMO ACRYL is used as a reinforcing coating for embedding fiberglass mesh on fixed thermo-insulation boards, constituting the ideal substrate for the subsequent organic plaster layer.
Moreover, it is used for fixing any kind of thermo-insulation materials, such as extruded or expanded polystyrene boards, stone wool etc., on the exterior surface of buildings.
In combination with the acrylic or silicone acrylic plasters MARMOCRYL and MARMOCRYL-SILICONE. It is also ideal for the external thermal insulation of buildings.

Technical data

Form:	pasty
Color:	white
Application temperature:	from +5^{0}C to +35^{0}C
Open time:	at least 50 min
Minor adjustments time:	at least 30 min
EN 15824:	
Water vapour permeability:	V2
(EN ISO 7783-2, V2: 0,14 ⩽Sd<1,4m)	Medium
Water permeability (EN 1062-3, W3: Low w< 0,1 kg/m^{2}h^{0,5})	W3
Adhesion (EN 1542):	
• On concrete:	≥ 1,20 N/mm^2
• On XPS:	≥ 0,21 N/mm^2
• On EPS:	≥ 0,15 N/mm^2
Thermal conductivity (EN 1745)	λ=0,7 W/(m · K)
Reaction to fire	Euroclass C
EN 12004:	
Initial adhesion strength:	≥ 2,00 N/mm^2
Adhesion after:	
• immersion in water:	≥ 1,00 N/mm^2
• heat ageing:	≥ 1,50 N/mm^2

Directions for use

As reinforcing coat

1. Substrate
The thermo insulation boards must be applied staggered (like brick work) without continuous vertical joints. Any voids between the boards must be filled with expanded polyurethane foam. The whole surface must be levelled.

2. Application
Before the application, ISOMAT AK-THERMO ACRYL must be stirred well with a low revolution mixer. Subsequently the material is applied with a notched trowel in a thickness of 2-3 mm. On the still fresh layer the fiberglass mesh is placed and pressed with a smooth trowel to get fully embedded in the adhesive. Finally, the surface is smoothed out and the excess material is removed. The fibreglass mesh strips should be overlapped approximately 10cm at the edges.

As adhesive for thermo-insulation boards:

1. Substrate
The surface to be covered with boards should be free of dust, grease, loose particles, paints etc. For very absorptive substrates the use of an acrylic based primer FLEX-PRIMER is recommended.

2. Application
On smooth substrates ISOMAT AK-THERMO ACRYL is spread on the thermo-insulation board and combed using a notched trowel in

ISOMAT AK-THERMO ACRYL

order to be uniformly applied on the whole of the surface.
On uneven substrates the adhesive is applied with a trowel around the perimeter of the thermo-insulation board and in selected spots in the centre.Next, the thermo-insulation boards are fixed by pressing them on the desired position.

Consumption

As reinforced coating: approx. 3,0-4,0 kg/m^2

As adhesive: 2,0-5,0 kg/m², depending on the trowel's notch size and the nature of the substrate.

Packaging

ISOMAT AK-THERMO ACRYL is supplied in plastic buckets of 25 kg.

Shelf-life - Storage

12 months from production date if stored in original, unopened packaging, in temperature between +5°C and +35°C. Protect from direct sun exposure and frost.

Remarks

- Temperature during application should be between +5°C to +35°C.
- The drying time of ISOMAT AK-THERMO ACRYL is affected from temperature and moisture.
- In normal condition the successive layer can be applied after 24-48 hours.
- At low temperature and in high moisture the hardening time is extended. While it is reduced at high temperature and in low moisture.
- ISOMAT AK-THERMO ACRYL while it is still fresh should be protected from high temperatures, rain and frost.
- Consult the usage risks and safety advice written on the bag.

Volatile organic compounds (VOCs)

According to the Directive 2004/42/CE (Annex II, table A), the maximum allowed VOC content for the product subcategory c, type WB is 40g/l (2010) for the ready to use product.
The ready to use product ISOMAT AK-THERMO ACRYL contains max <40 g/l VOC.

ISOMAT AK-THERMO ACRYL

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EN 15824

External render based on
organic binder

Water vapour permeability: V2
Water absorption: W3
Adhesion: 1,2 MPa
Durability: NPD
Thermal conductivity: λ = 0,7 W/(mK)
Reaction to fire: Euroclass C

CE
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ISOMAT S.A.
17th km Thessaloniki - Ag. Athanasios,
P.O. BOX 1043, 570 03 Ag. Athanasios, Greece

EN 12004

Improved, dispersion adhesive
for tiling with extended open time

- Reaction to fire	Class F
- Initial tensile adhesion strength	≥ 1 N/mm^2
- Shear adhesion strength after heat ageing	≥ 1 N/mm^2
- Shear adhesion strength at elevated temperatures	≥ 1 N/mm^2
- Tensile adhesion strength after water immersion	≥ 0,5 N/mm^2

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