

AQUAMAT-MONOFLEX

One-component, flexible, fiber-reinforced, cement-based waterproofing slurry

Description

AQUAMAT-MONOFLEX is a one-component, flexible waterproofing slurry consisting of a cement-based powder mortar, enhanced with resins. After hardening, it forms a seamless, jointless membrane with the following advantages:

- Crack-bridging ability.
- Total waterproofing against positive hydrostatic pressure up to 5 atm according to EN 12390-8. It can also withstand negative pressure.
- Protection of concrete from carbonation.
- Vapor permeability.
- Resistance to aging.
- Bonding to wet surfaces without priming.
- Simple and low cost application.

Certified according to EN 1504-2 and classified as a coating for surface protection of concrete. Certificate No.: 2032-CPR-10.11.

Fields of application

It is used for waterproofing surfaces made of concrete, plaster, bricks, cement blocks, terrazzo, etc., which show or are expected to show hairline 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 basements, internally or externally, against humidity or water under pressure.

Technical data

Basis:	cementitious powder
Colors:	grey
Mixing ratio (with water):	
• Application by brush:	4.7-5.0 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:	1.20 ± 0.20 kg/l
Bulk density of fresh mortar:	1.70 ± 0.2 kg/l
Compressive strength: (EN 12190)	12.00±1.00 N/mm ²
Flexural strength: (EN 12190)	5.00 ± 1.00 N/mm ²
Adhesion (EN 1542):	≥ 1.0 N/mm ²
Permeability to CO ₂ : (EN 1062-6 Method A, requirement: Sd >50m)	170 m
Capillary absorption and permeability to water: (EN 1062-3, requirement of EN 1504-2: w < 0.1)	0.04 kg/m ² h ^{0.5}
Water vapor permeability: (EN ISO 7782-2, Class I < 5m)	Sd = 0.79 m
Pot life:	60 min at +20°C
Water penetration under positive hydrostatic pressure: (EN 12390-8, 3 days at 5 bar)	no penetration
Water penetration under negative hydrostatic pressure: (at 1.5 bar)	no penetration

Durability against:

- | | |
|-------------------------|----------------------|
| • Rain: | after approx. 1 day |
| • Tile fixing: | after approx. 1 day |
| • Water under pressure: | after approx. 7 days |
| • Backfill: | after approx. 3 days |

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Directions for use

1. Substrate preparation

- 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 and smoothed out with DUROCRET, RAPICRET or a cement mortar improved with ADIPLAST, after all loose aggregate has been removed and the surface has been well dampened.
- Starter bars and wooden molds should be cut to a depth of about 3 cm into the concrete and the holes should be sealed as above.
- Existing construction joints are opened longwise in a V shape to a depth of about 3 cm and are subsequently filled as above.
- Corners like wall to floor junctions, should be filled and smoothly rounded with DUROCRET or a cement mortar improved with ADIPLAST (fillets having a triangular cross-sectional area with 5-6 cm sides).
- In case of masonry walls, joints should be first filled carefully, otherwise it is recommended to apply a cement mortar layer first improved with ADIPLAST.
- For waterproofing basements in old buildings, any existing plaster layer should be removed to a height of up to 50 cm above water level, before proceeding 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 two or more layers, depending on the water load. The content of the 18 kg bag is added to the 4.7-5.0 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 ponding water. Each new coating is applied after the previous one has dried. The freshly coated surface should be protected from high temperatures, rain and frost.

In case AQUAMAT-MONOFLEX needs to be locally reinforced (inside corners where forming fillets is not necessary, at junctions, etc.), the use of a 10 cm wide polyester fleece (30 g/m²) or a fiberglass mesh (65 g/m²) is recommended.

Consumption

Depending on the water load, the material is applied in 2-4 layers.

Layers thicker than 1 mm should be avoided, because the material may crack.

Consumption: 1.36 kg/m²/mm.

Packaging

18 kg bags.

Shelf life – Storage


12 months from production date if stored in original, unopened packaging in a frost-free and dry place.

Remarks

- In cases of water under pressure, care should be taken, so that pumping which keeps the water level low does not stop before AQUAMAT-MONOFLEX has sufficiently hardened. About 7 days are needed.
- In case of water under pressure, the structure that bears the waterproofing layer (wall, floor, etc.) should have been suitably designed in order to withstand hydrostatic pressure.
- Temperature during application should be between +5°C and +35°C.

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- Due to cement content, AQUAMAT-MONOFLEX reacts with water forming alkaline solutions, thus is classified as irritant.
- Please consult the safety instructions written on the packaging before use.

 2032
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2032-CPR-10.11 DoP No.: AQUAMAT-MONOFLEX/1607-03 EN 1504-2 Surface protection products Coating Permeability to CO ₂ : Sd > 50m Water vapor permeability: Class I (permeable) Capillary absorption: $w < 0.1 \text{ kg/m}^2 \cdot \text{h}^{0.5}$ Adhesion: $\geq 1.0 \text{ N/mm}^2$ Reaction to fire: Euroclass F Dangerous substances comply with 5.3

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