

# AQUAMAT-MONOFLEX

## One-component, flexible, fiber-reinforced, , cement-based brushable sealing slurry

### Description

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

- Crack-bridging ability.
- Total waterproofing against hydrostatic pressure up to 7 atm, according to DIN 1048.
- Protection of concrete from carbonation.
- 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-CPR-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 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<sup>2</sup>
- Flexural strength:  
 (EN 12190): 5.00 ± 1.00 N/mm<sup>2</sup>
- Adhesion  
 (EN 1542): ≥ 1.0 N/mm<sup>2</sup>
- Permeability to CO<sub>2</sub>: 170 m  
 (EN 1062-6 Method A, requirement: Sd > 50m)
- Capillary absorption and permeability to water: 0.04 kg/m<sup>2</sup>h<sup>0.5</sup>  
 (EN 1062-3, requirement of EN 1504-2: w < 0.1)
- Water vapor permeability: Sd = 0.79 m  
 (EN ISO 7782-2, Class I < 5m)
- Pot life: 60 min at +20°C
- Durability against:
- Rain: after approx. 1 day.
  - Tile fixing: after approx. 1 day.
  - Water under pressure: after approx. 7 days.
  - Pit filling material: after approx. 3 days.

### 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 moistened.
- 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 sealing basements in old buildings, any existing wall plastering 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 2 or more layers, depending on the water load. The content of the 18 kg bag is added into 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.

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, junctions etc.), the use of a 10 cm wide polyester cloth tape (30 g/m<sup>2</sup>) or a fiberglass mesh tape (65 g/m<sup>2</sup>) 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/m<sup>2</sup>/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.

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## 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 sealing layer (wall, floor etc.) should have been suitably designed in order to withstand hydrostatic pressure.
- Temperature during application should be between +5°C and +30°C.
- AQUAMAT-MONOFLEX contains cement that reacts with water forming alkaline solutions, thus is classified as irritant.
- Consult the directions for safe use and precautions written on the package.



2032

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DoP No.: AQUAMAT-MONOFLEX/1607-03

EN 1504-2

Surface protection products

Coating

Permeability to CO<sub>2</sub>: 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 5.4

### ISOMAT S.A.

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