

# AQUAMAT-ELASTIC

## Two-component, highly flexible, cement-based waterproofing slurry

### Description

AQUAMAT-ELASTIC is a two-component, highly flexible waterproofing slurry consisting of a cement-based powder mortar (component A) and a resin emulsion (component B). 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.
- Suitability for potable water tanks, as well as food contact surfaces, according to W-347.
- Resistance to sewage water (sewage water treatment plants, sewers, etc.).
- Resistance to aging.
- Bonding to slightly wet surfaces without priming.
- Simple and low cost application.
- Suitability for green roofs, flower beds, etc. as it is certified as root-resistant.
- Also works as a radon barrier.

Certified according to EN 1504-2 and classified as a coating for surface protection of concrete. CE marked.

Certificate No.: 2032-CPR-10.11.

AQUAMAT-ELASTIC has been tested by the accredited German Institute MFPA Leipzig and complies with 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 flat roofs.

Certification numbers: P-SAC 02/5.1/11-147 as waterproofing system under plates and tiles, P-SAC 02/5.1/11- 305 as waterproofing systems for buildings.

Complies also with the requirements of 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 waterproofing of building structures.

AQUAMAT-ELASTIC has been tested and approved by the German Institute TÜV Rheinland LGA Bautechnik GmbH for being resistant, when in contact with sewage water.

It has also been tested and approved as a radon barrier by the Federal Budgetary Scientific Institution, Saint Petersburg Professor P.V. Ramzaev, Scientific Research Institute for Radiation Hygiene.

Also certified as root-resistant, according to UNE CEN/TS 14416 EX: 2014.

### Fields of application

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

### Technical data

	<u>Component A</u>	<u>Component B</u>
Basis:	cementitious powder	acrylic polymer dispersion
Colors:	grey, white	white
Mixing ratio:	2.5 parts by weight	1 part by weight

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Mixing time: Wet mix:  
3 min  
Pot life: 60 min at +20°C  
Bulk density: 1.80 kg/l

## AQUAMAT-ELASTIC Grey

Permeability to CO<sub>2</sub>: 140 m  
(EN 1062-6 Method A, requirement: Sd > 50m)  
Capillary absorption and permeability to water: 0.0594 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 = 0.61 m  
(EN ISO 7783-2, Class I: Sd < 5m)

Compressive strength: (EN 196-1): 10.00 ± 2.00 N/mm<sup>2</sup>

Flexural strength: (EN 196-1): 6.00 ± 1.00 N/mm<sup>2</sup>

Adhesion (EN 1542): ≥ 1.0 N/mm<sup>2</sup>

Crack bridging (DIN 18195-2): 0.4 mm

Water penetration under positive hydrostatic pressure: no penetration  
(EN 12390-8, 3 days at 5 bar)

Water penetration under negative hydrostatic pressure: no penetration  
(at 1.5 bar)

## AQUAMAT-ELASTIC White

Permeability to CO<sub>2</sub>: 129 m  
(EN 1062-6 Method A, requirement: Sd > 50m)

Capillary absorption and permeability to water: 0.009 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 = 0.21 m  
(EN ISO 7783-2, Class I: Sd < 5 m)

Compressive strength: (EN 196-1): 10.00 ± 2.00 N/mm<sup>2</sup>

Flexural strength: (EN 196-1): 6.00 ± 1.00 N/mm<sup>2</sup>

Adhesion (EN 1542): ≥ 1.0 N/mm<sup>2</sup>

Crack bridging (DIN 18195-2): 0.4 mm

Water penetration under positive hydrostatic pressure: no penetration  
(EN 12390-8, 3 days at 5 bar)

Water penetration under negative hydrostatic pressure: no penetration  
(at 1.5 bar)

## Durability against:

- Rain: after approx. 4 hours
- Walking: after approx. 1 day
- Tile fixing: after approx. 1 day
- Water under pressure: after approx. 7 days
- Backfill: after approx. 3 days

## Directions for use

### 1. Substrate preparation

- The substrate must be clean, free of oily residue, loose material, dust, etc.
- Water leaks should be plugged with AQUAFIX rapid-setting cement.
- Any cavities on 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.

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- Starter bars and wooden molds should be cut to a depth of about 3 cm into concrete and holes should be sealed, as described 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-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 sides of 5-6 cm).
- 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 whole content of the 25 kg bag (component A) is added to the 10 kg of the 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 ponding. The material is applied by brush in 2 or more layers, depending on the water load. 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. In case AQUAMAT-ELASTIC 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/m<sup>2</sup>) or fiberglass mesh (65 g/m<sup>2</sup>) is recommended.

### Consumption

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

Water load	Minimum consumption	Minimum thickness
Moisture	2.0 kg/m <sup>2</sup>	Approx. 1.5 mm
Water without pressure	3.0 kg/m <sup>2</sup>	Approx. 2.0 mm
Water under pressure	3.5-4.0 kg/m <sup>2</sup>	Approx. 2.5 mm

### Packaging

- 35 kg packaging (25 kg cement-based powder mortar + 10 kg resin emulsion), in grey and white.
- 18 kg packaging (12.9 kg cement-based powder mortar + 5.1 kg resin emulsion), in white.
- 7 kg packaging (5 kg cement-based powder mortar + 2 kg resin emulsion), in white.

### Shelf life – Storage

#### Component A:

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

#### Component B:

12 months from production date if stored in original, unopened packaging at temperatures between +5°C and +35°C. Protect from direct sunlight and frost.

### Remarks


- In case of water under pressure, care should be taken, so that pumping, which keeps the water level low, does not stop before AQUAMAT-ELASTIC has sufficiently hardened. About 7 days are needed.

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- 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.
- In case 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 +35°C.
- Due to cement content, the component A of AQUAMAT-ELASTIC reacts with water forming alkaline solutions, thus is classified as irritant.
- Please consult the safety instructions written on the packaging before use.

## Volatile Organic Compounds (VOCs)

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

 2032
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2032-CPR-10.11  DoP No.: AQUAMAT-ELASTIC GREY/1623-01  <b>EN 1504-2</b> Surface protection products  Coating
Permeability to CO <sub>2</sub> : Sd > 50m Water vapor permeability: Class I (permeable) Capillary absorption: w < 0.1 kg/m <sup>2</sup> ·h <sup>0.5</sup> Adhesion: ≥ 1.0 N/mm <sup>2</sup> Reaction to fire: Euroclass F Dangerous substances comply with 5.3

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2032

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2032-CPR-10.11

DoP No.: AQUAMAT-ELASTIC WHITE/1624-01

**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 5.3

**ISOMAT S.A.**

BUILDING CHEMICALS AND MORTARS

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