

## Technical Datasheet

# AQUAMAT-SR

## Sulfate-resistant, waterproofing cement-based slurry

### Description

AQUAMAT-SR is a one-component, cement-based, brushable waterproofing slurry, suitable for waterproofing surfaces that come into contact with wastewater and groundwater containing sulfates. It has the following properties:

- Total waterproofing against positive hydrostatic pressure up to 5 atm according to EN 12390-8. It can also withstand negative pressure.
- High resistance to sulfates.
- Perfect adhesion to substrates, such as concrete or masonry, even under negative pressure conditions.
- Suitability for both horizontal and vertical surfaces.
- Vapor permeability.
- Suitability for application, in cases ranging from simple moisture to water under pressure.
- Protection of concrete from carbonation.
- No corrosive effect on the reinforcing steel in concrete.
- Simple and low cost application.

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

### Fields of application

It is used for waterproofing walls and floors in wastewater treatment plants.

Also suitable for restoring wall and floor surfaces that have been damaged by sulfates.

It can be applied in cases ranging from simple moisture to water under pressure.

It enables the internal waterproofing of underground spaces, as it can withstand negative pressure (water from the substrate side) without support, due to its perfect adhesion to the substrate.

### Technical data

Form:	cementitious powder
Color:	grey
Water demand:	7.5-8.0 l/25 kg bag

Bulk density of dry mortar:	1.39 ± 0.05 kg/l
Bulk density of fresh mortar:	1.90 ± 0.10 kg/l
Compressive strength after 28 days (EN 12190):	25.00 ± 3.0 N/mm <sup>2</sup>
Flexural strength after 28 days (EN 12190):	8.50 ± 1.0 N/mm <sup>2</sup>
Adhesion strength (EN 1542):	≥ 1.0 N/mm <sup>2</sup>
CO <sub>2</sub> permeability: (EN 1062-6 Method A, S <sub>d</sub> > 50 m requirement)	> 50m
Capillary water absorption: 0.04 kg·m <sup>2</sup> ·h <sup>0.5</sup> (EN 1062-3: requirement EN 1504-2: w < 0.1)	
Vapor permeability: (EN ISO 7783-2, vapor-permeable Class I, S <sub>d</sub> < 5 m)	S <sub>d</sub> < 5 m

Pot Life: 1 h at +20°C

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

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

### Durability against:

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

### Directions for use

#### 1. Substrate preparation

- The substrate should be clean, free of dust, oily or loose materials, etc.
- Water leaks should be plugged with AQUAFIX ultra rapid-setting cementitious leak-plugging mortar.

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- Any cavities in concrete should be filled and smoothed out, using 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 spacers should be cut to a depth of about 3 cm into the concrete and the holes should be filled, as described above.
- Existing construction joints are opened lengthwise in a V shape to a depth of about 3 cm and are filled as above.
- Corners, like the wall-floor junctions, should be filled and rounded off with DUROCRET or a cement mortar improved with ADIPLAST (formation of a fillet, triangular in cross section, with sides of 5-6 cm).
- In case of masonry walls, joints should first be carefully filled; otherwise, it is recommended to apply a cement mortar layer, previously improved with ADIPLAST.
- In case of internal basement waterproofing in old buildings, any existing plaster coat should be removed to a height of at least 50 cm above water level, before proceeding as above.
- Where flat surface formation is required (smoothing etc.), the use of DUROCRET, RAPICRET, or a mortar improved with ADIPLAST is recommended.

## 2. Application

AQUAMAT-SR is gradually added to water under continuous stirring, until a uniform, viscous mixture is formed, suitable for brush application.

The substrate must be pre-wetted to a saturated surface dry condition before application.

The material is applied in two 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 brush-applied, after the previous one has dried. The freshly coated surface should be protected from high temperatures, rain and frost.

## Elastification

In case of substrates subject to vibration or intense expansion-contraction, such as gypsum boards, chipboards, underfloor heating systems, terraces, balconies, swimming pools, etc., it is necessary to add 5-10 kg of ADIFLEX-B to 25 kg of AQUAMAT-SR, plus a quantity of water that depends on the desired workability, to improve its flexibility.

## Consumption

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

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

## Packaging

25 kg bags.

## Shelf life – Storage

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

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## 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-SR has sufficiently hardened. About 7 days are needed.
- The structure bearing the waterproofing layer (wall, floor, etc.) should be properly designed, in order to be sufficiently static to withstand the hydrostatic pressure.
- If there has been internal waterproofing and the floor is walkable, the floor surface sealed with AQUAMAT-SR should be protected with a cement mortar layer.
- Temperature during the application should be at least +5°C.
- Due to cement content, the product reacts with water forming alkaline solutions, thus is classified as irritant.
- Consult the directions for safe use and precautions written on the packaging before use.



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### EN 1504-2

Surface protection products  
Coating

CO<sub>2</sub> permeability: 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 A1

Dangerous substances comply with 5.3

### ISOMAT S.A.

BUILDING CHEMICALS AND MORTARS

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