

AQUASIL

Brushable cement-based waterproofing mortar for concrete.

Description

Osmotic, brushable cement based sealing slurry for complete and permanent waterproofing of concrete, brickwork, plaster and generally mineral construction materials. The special additives are transported inside the concrete via the osmosis process and through its pores and capillaries cracks. It is ideal for basements, tanks, tunnels, foundations, canals, etc. AQUASIL guarantees no water penetration under both positive or negative hydrostatic pressure, while at the same time the surface stays vapor permeable. It is suitable for direct contact with drinking/potable water. It can be backfilled, covered with tiles, marble, stone or other covering material, as well as plastered or left as is and act as finish coat.

Application examples

The material is used for waterproofing and sealing the following surface types:

- basements
- cellars
- floors
- roofs
- tanks
- tunnels
- foundations
- wells
- brick or cement block structures
- planters
- tile roof substrates
- swimming pools
- elevator shafts, etc.

Advantages

- The action lasts throughout the concrete's life
- Offers permanent waterproofing under both negative and positive hydrostatic pressure
- It is vapour permeable
- Protects concrete and reinforcement from carbonation and other environmental factors
- Protects concrete surfaces which may come into contact with seawater, de-icing salts such as sodium or calcium chloride and sulphates.
- Suitable for tanks with potable water
- It can be backfilled, tiled or apply any other cladding, as well as plastered or stay as is.
- Easy and cost effective application
- Resistant to permanent contact of aqueous solutions with low pH

Technical Characteristics

EN-TDS BAUER_Aquasil_14.12.2023

Form: Cement-based dry mortar

Colour : Grey

Mortar density (dry): between 1,4-1,6 Kg/L

Pot life: at least 70 minutes

Maximum coat thickness (2-3 coats): ≤5 mm

Minimum coat thickness (2-3 coats): ≥ 2 mm

Application temperature: +5 °C to + 35 °C

Temperature resistance: -30 °C to +80 °C

Compressive strength: ≥ 25 N/mm²

Flexural strength: ≥ 6 N/mm²

Bond strength on concrete after 28 days: ≥ 2 N/mm²

Water vapour permeability: Class II

Capillary water absorption: < 0,1 kg/m²h^{0.5}

Water penetration under positive hydrostatic pressure (≥ 5 bar): No penetration

Water penetration under negative hydrostatic pressure (1,5 bar): No penetration

Exposure to rain: after 3 hours

Earth filling: after 3 days

Foot traffic: after 24 hours

Substrate preparation

Provide stable surfaces. Remove loose or detached fragments, dirt, oil, dust etc. Seal off and repair any major voids and gaps. Smoothen the surface by breaking pointed projections and fill all voids with repair mortar. Any repairs of surfaces shall be carried out using suitable BAUER products. In case materials are applied in interior basements, provide gutters in corners, made with suitable repair mortar (e.g. BETOFIX).

Substrates

- concrete
- renders/plaster
- plaster boards
- cement boards
- mosaic

- cement screeds
- cement blocks
- artificial or natural stone etc

Highly absorbent substrates

For surfaces exposed to extreme solar radiation and during extreme summer heat or in case substrate is excessively absorbent, we recommend slight wetting the substrate preventing still water spots, in order to reduce water absorption and to avoid quick mortar dehydration.

Mixture preparation

The material must be prepared in a suitable container; first pouring approximately $\frac{3}{4}$ of the required quantity of water (7,0-7,5 L of water for 25 Kg of mortar) and then gradually add the contents of the bag, stirring at the same time by electric agitator operating at low rpm. Then add remaining water and keep stirring until a uniform mixture with the required workability is obtained. The quantity of mixing water written on the surface is indicative. You may add more or less water than the prescribed quantity, for a more or less thixotropic composition, depending on the intended application (applied by spackle knife or flat brush). Adding much more water than the prescribed quantity (> 0.5 L) may result in reducing the strength of the mortar. We recommend regular stirring without adding water.

Instructions for use

Apply the product using roller brush, hard brush or spackle knife/spatula/putty knife cross wise in two or more coats. The second coat can be applied on top of the first one after it has soaked sufficiently for at least 5-10 hours yet before complete drying. Where required, apply a third coat in the same way. Each coat should not be thicker than 1-2 mm. Ensure that the product penetrates and seals off all voids. In case of filling surfaces with demolition debris, allow complete drying of the product so that sufficient strength is developed, at least for 3 days. Application is not recommended under extreme solar radiance (temperature greater than 35°C) or rainfall, or in periods when temperature is expected to drop below zero. During the summer season, keep surfaces slightly damp by lightly spraying water for a couple of days after application. Clean all tools with water immediately after use.

Product specifications

It is classified as Concrete Surface protection products - Coating for ingress protection and moisture control according to EN 1504-2

Consumption

2-4 kg/m² The total consumption is relevant to the degree of .waterproofing we wish to accomplish in the construction.

Storage

Preferably in sheltered areas, low in moisture, protected from ice, high temperature and exposure to sunlight for 12 months from the date of production and in the original sealed packaging.

Packages

25kg paper bags, 5kg plastic bags

Precautions & safety

The product contains cement and is classified as irritant. No special precautions are necessary for product application except for standard precautions applicable to all construction operations i.e. using gloves and goggles; preventing prolonged skin contact; etc. In case of eye contact, immediately wash with plenty of water and seek medical advice if necessary. Collect empty bags and plastic covers and dispose in refuse bins designated for this purpose. Consult instructions for safe use indicated on product packaging. For more information please refer to the material safety data sheet of the specific product.

Notes

Technical details, properties, recommendations and information on BAUER products are supplied in good faith. They are based on the company's research and experience, provided that they are stored and applied under normal conditions. As the method of using materials as well as project and environment conditions are beyond the control of the company in each individual application setting, the product user is held solely responsible for the result of application. No responsibility under any legitimate relationship can be substantiated against the company, based on the information set out hereunder. Product users are advised to refer to the latest revision of the technical manuals available.

Other information

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