



BI MORTAR RASO SEAL



WATERPROOF MORTARS - RAPID-SETTING MORTARS



PRODUCT DESCRIPTION

BI MORTAR RASO SEAL is a white, two-component, waterproof, flexible and decorative coating that can be used to create continuous finishing surfaces even in direct contact with water. It allows both levelling and decorative finishing of treated surfaces, even with a marmorino effect.

PRODUCT APPLICATION

Levelling and finishing, waterproofing of concrete or masonry surfaces even when totally immersed in water, under both positive and negative hydraulic pressure conditions.

Particularly suitable for:

- Swimming pools, showers, saunas and steam baths, fountains, tanks and channels
- Finish in combination with other BI MORTAR products

ADVANTAGES

- Fine mineral finish in perfect harmony with the natural environment, historic and rural areas
- Excellent adhesion on most types of substrates such as concrete, mortar, stone, brick
- Excellent smooth surface finish due to its fine grain size with the possibility of roughening the surface in transit areas
- Complies with the anti-slip requirements of Italian M.D. 236/89
- Good resistance to U.V. radiation
- Possibility of pigmenting the product to obtain coloured coatings in soft shades
- Easy to apply even on surfaces with variable geometry

PREPARATION AND APPLICATION

Preparing the surfaces

Remove any loose parts (fouling, bleeding, etc.), carefully clean from any presence of dust, dirt, paints, release agents and, in general, any other material that may compromise the adhesion of BI MORTAR RASO SEAL; proceed with the repair of missing or irregular portions of the surface by applying the appropriate Volteco repair mortars (see relative technical data sheets).

High-pressure clean the surface until it is soaked and remove excess water before applying the product.

Seal any localised water flows with TAP 3/I-PLUG rapid-setting hydraulic mortar (see relevant technical data sheets).

With brick or mixed material surfaces, apply BI MORTAR PLASTER SEAL (see the technical data sheet) to the surface to reinforce waterproofing and at the same time provide the base with a uniform degree of absorbency.

Preparation of surface discontinuity elements

Seal all discontinuities, joints, cracks and through-bodies with a suitable Volteco sealing system.

In the case of structural expansion joints, please contact Volteco's Technical Service.

Preparing the mixture

Shake the liquid component in its container, then pour it into a bucket (minimum 14 l) and gradually add about half of the powder component with the mixer running.

Mix with a whip-fitted drill until a homogeneous mixture is obtained, then add the remaining quantity of powder and complete the mixing for a total of about 3 minutes and/or until the mixture is homogeneous and free of lumps.

During mixing remove any dust settled on the substrate or edges of the container pot.

In order to correct the workability of the mixture, the amount of liquid can be added or reduced by a maximum of about 6% of the weight of the mixture (equal to about one cup).

Pigmentation

In the case of any pigmentation of the mixture with dyes (soft colors only), it is recommended to use powder oxides, which must be poured and dispersed in the liquid component before coming into contact with the powder component, stirring with the mixer until completely dispersed.

Application

Apply BI MORTAR RASO SEAL by trowel or flat trowel in thicknesses between 1 and 3 mm in a single coat, for application of thicker coats, wait at least 12 hours between coats.

Swimming pools and water containment

In the case of swimming pools or water containment in general, please observe the following additional instructions:

- protect construction joints, joints and cracks with the BI FLEX System (see relevant technical data sheet), which is recommended to be installed in a recessed location
- apply BI MORTAR CONCRETE SEAL as a base coat or, alternatively, BI MORTAR ULTRA SEAL (see relative technical data sheets)
- apply a first coat of BI MORTAR RASO SEAL with a notched trowel (tooth height 6 mm) to obtain a 3 mm thick layer on which it is recommended to insert an alkali-resistant glass fibre mesh, then level the layer while fresh

After at least 12 hours, proceed with the second coat at a thickness of 1 mm and apply the finish

- wait at least 15 days after applying the second coat before filling the tank

Finishing

BI MORTAR RASO SEAL finishing can be carried out with a sponge float or spatula when the mortar begins to harden.

Alternatively, a smooth marble-effect finish can be created using a specific technique.

Before applying any coatings, let it cure for at least 3 days after applying BI MORTAR RASO SEAL.



References available at www.volteco.com

CONSUMPTION AND YIELD

1.6 kg/m² per mm of thickness equivalent to a yield of 13÷14 l of mortar per bag.

PACKAGING AND STORAGE

BI MORTAR RASO SEAL is supplied in 25 kg packages (20 kg in powder + 5 kg in liquid).

The product must be stored in a dry place without being exposed to frost and heat (maximum temperature: 40°C) or direct exposure to the sun before being applied.

WARNINGS - IMPORTANT NOTES

Protect the applied product from exposure to wind or sun.

Significant condensation may occur in environments with poor ventilation or high humidity.

The structures that the product is applied to must be suitably sized to resist the hydraulic loads.

Do not apply BI MORTAR RASO SEAL should there be a probability of rainfall within 6 hours after the product is applied.

High or low temperature conditions can significantly vary the workability and curing time of the product.

If BI MORTAR RASO SEAL has been pigmented, the aesthetic result may be slightly uneven, or with a veiling effect, depending on the dexterity of the operator.

In the case of swimming pools or water containment in general, please observe the following additional instructions:

- During the laying phases of the BI MORTAR RASO SEAL cycle and until the rain stops, it is advisable to protect the surfaces from rain (preferably with a temporary cover) without hindering proper ventilation
- Avoid chemical water treatment during the first week after filling
- Avoid bringing high concentrations of chemical water treatment products into direct contact with the BI MORTAR RASO SEAL or using saline electrolysis treatments
- Avoid extended contact with plants as they could leave traces on the surface; therefore, we recommend periodic cleaning of the surface and covering outdoor pools when out of season.
- Prevent the proliferation of algae, fungi, etc. on the surface of the coating with appropriate specific water treatment
- The environment under consideration is subject to severe deterioration, so periodic maintenance of the coating may be necessary

Clean tools with water while the product is still fresh.

The preparation and installation data refer to normal environmental conditions (temperature +20°C; relative humidity 60%).

PHYSICAL AND TECHNICAL SPECIFICATIONS

Specification	Values
Appearance	white powder - white latex
Mixture consistency	trowelable
Working temperature	from -5°C to +30°C
Workability time at +20°C	30'
Maximum aggregate size	0.7 mm
Specific weight	> 1.85 kg/l
Mixture ratio	100 parts powder 25 parts liquid

Feature	Test method	Performance requirements UNI EN 1504-2	Declared performance	Certified performance (**)
Capillary absorption	UNI EN 1062-3	$< 0.1 \text{ kg} \cdot \text{m}^{-2} \cdot \text{h}^{-0.5}$	$< 0.1 \text{ kg} \cdot \text{m}^{-2} \cdot \text{h}^{-0.5}$	$0.021 \text{ kg} \cdot \text{m}^{-2} \cdot \text{h}^{-0.5}$
Bond strength	UNI EN 1542	> 0.8 MPa	> 0.8 MPa	1.8 MPa
Water vapour permeability	UNI EN 7783-2	Class 1 - Sd < 5 m		Sd 1.1 m
Reaction to fire	UNI EN 13501-1	Classification		Euroclass F

Feature	Certifying body	Test method	Certified performance (**)
Swimming pool water immersion test (168 h)	SSOG	ISO 2812-2:1993	Test report SSOG 21022637 (26/07/2021)
Water immersion test (500 h)	SSOG	ISO 2812-2:1993	Test report SSOG 21022637 (26/07/2021)

Feature	Certifying body	Test method	Certified performance (**)
Determining reverse hydrostatic pressure resistance (72h at 250 kPa)	SOCOTEC ITALIA SRL	UNI 8298-8	No alteration

The quoted data are obtained in a laboratory at +20 °C and 60% RH.


WATCH VIDEOS AND INSIGHTS

Safety Data Sheets Declaration of performance Specifications Technical drawings and BIM EPD Declaration YouTube Video



SAFETY

Refer to the related Safety Data Sheet.

	VOLTECO S.p.a Via delle Industrie, 47 - 31050 Ponzano Veneto (I)
23 DOP 0041 EN 1504-2:2005 1381-CPR-1160 BI MORTAR RASO SEAL Protection systems of the concrete surface: Moisture content control (MC) and increased resistivity (IR) coating	
Reaction to fire: Class F Water vapour permeability: Class 1 Capillary absorption and permeability to water: $< 0.1 \text{ kg} \cdot \text{m}^{-2} \cdot \text{h}^{-0.5}$ Adhesion: $\geq 1 \text{ N/mm}^2$ Thermal compatibility: • Part 1: Un/freezing cycles: NPD • Part 2: Thunderstorm cycles (thermal shock): NPD • Part 3: Thermal cycles without immersion in de-icing salt: NPD Crack bridging properties (method A): NPD Performance after exposure to the action of artificial atmospheric agents: NPD Methods of conditioning before testing (7 days at 70°C): NPD Linear shrinkage: NPD Coefficient of thermal expansion: NPD Cross cut: NPD Slip resistance: NPD Antistatic behavior: NPD Adhesion on wet concrete: NPD Hazardous substances: See SDS	

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LEGAL NOTES

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