

**PRODUCT DESCRIPTION**

BI MORTAR SL is a shrinkage-controlled waterproof bentonite coating which waterproofs and, at the same time, smoothes horizontal structures. Particularly suited for extending and re-adapting the quality of underground rooms. Also suitable in the presence of negative hydrostatic pressure.

**PRODUCT APPLICATION**

- Horizontal surfaces, to create a waterproof concrete repair mortar with a maximum final slope of 2%
- Elevator pit surfaces, lightwells, tanks, channels and pools to create a waterproof concrete repair mortar with a slope
- Waterproofing of foundations, even in conditions of negative hydraulic pressure
- Waterproofing of the horizontal surface in underground structures, also in the case of reduced available thicknesses or uneven surfaces

ADVANTAGES

- It simplifies and reduces the application phases by featuring "two products in one", as it reinforces and waterproofs in a single application
- Also applicable on uneven surfaces
- It can be mixed with fine gravel when applying high thick casting
- Sulphate resistant
- Excellent resistance to negative pressure
- Suitable for both indoor and outdoor application

PREPARATION AND APPLICATION Preparing the surfaces

Perfect adhesion of BI MORTAR SL to the surface depends on the quality of the surface preparation on which the mortar is to be applied.

Accordingly, it is necessary to preventively:

- Clean every trace of dirt and remove any incoherent parts
- Seal any passing bodies with AKTI-VO 201 mastic
- Seal any localised water flows with TAP 3/I-PLUG rapid-setting hydraulic mortar
- Roughen the surface, removing any film or cement slurry
- Clean each exposed reinforcement bar from rust
- If necessary, set-up the insertion of anchorage rods in the pre-existing structure
- Preventively anchor galvanised or stainless steel mesh to the surface, such as reinforcement, with relevant spacers suited to ensure the bottom concrete cover. As an alternative to metal mesh it is possible to use REVOMAT fibreglass mesh which, however, needs to be installed at a later time, with BI MORTAR SL application
- Thoroughly soak the surfaces with water, keeping them damp from when the application process



BI MORTAR SL



begins

- Remove all water stagnation

Preparing the mixture

The product is ready to use.

Pour the mixing water into a mortar mixer or a cement mixer (4-4.5 l per bag).

Slowly add the product while the mixer is running.

Castings with a thickness of over 4 cm may require dry and clean gravel of suitable grain size (6÷16 mm) to be added, up to 20% in weight.

Mix the mixture for approximately 3 minutes, then check product workability (small variations in water will not alter the characteristics of the product).

Continue mixing the mixture for 2 more minutes.

Application

BI MORTAR SL ready-mixed cement-based compound must be applied in a single solution with a minimum thickness of 2 cm.

When using REVOMAT mesh, apply a first layer of BI MORTAR SL and embed REVOMAT in it, fastening it to the previously arranged connectors; then, apply a second layer of BI MORTAR SL to cover the mesh completely.

For casting without containment sides, preventively set up the required formwork, then pour in BI MORTAR SL from only one side of the formwork.

The casting must be carried out without interruption and, when containment side boards are used, kept in place for at least 24 hours.

Finishing

Finish the surface with a spatula or straight edge.

Before applying any coatings, let it cure for at least 7 days after casting.



References available at www.volteco.com

CONSUMPTION AND YIELD

17 kg/m² per centimetre in thickness equivalent to a yield of 14÷15 l of mortar per bag.

PACKAGING AND STORAGE

25 kg bags.

An open package is sensitive to humidity.

The products must be stored in a dry place protected from sun and humidity.

WARNINGS - IMPORTANT NOTES

The product must be used within 20 minutes after mixing.

Do not add water to extend the pot life.

Do not apply the product at temperatures below +5°C.

Protect the applied product from exposure to wind or sun.

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

For casting carried out at different times or with closed or movement joints, it will be necessary to use the BI FLEX waterproof system (see related data sheet) on the joints.

Contact the Volteco Technical Service before intervening on open expansion joints.

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

PHYSICAL AND TECHNICAL SPECIFICATIONS

Specification	Values	
Appearance	grey powder	
Mixing water	17÷18%	
Workability time	30'	
Parameters subject to company quality control	Test method	Values



BI MORTAR SL

<i>Specific weight</i>		> 1.9 kg/l
<i>Compressive strength</i>	UNI EN 196-1	
<i>after 1 day</i>		> 5 N/mm ²
<i>after 7 days</i>		> 20 N/mm ²
<i>after 28 days</i>		> 25 N/mm ²
<i>Flexural strength</i>	UNI EN 196-1	
<i>after 1 day</i>		> 2 N/mm ²
<i>after 7 days</i>		> 4 N/mm ²
<i>after 28 days</i>		> 5 N/mm ²
<i>Bond strength</i>	UNI EN 1542	> 1.5 N/mm ²
<i>Permeability in positive pressure</i>	UNI EN 12390-8	none up to 100 kPa
<i>Permeability in negative pressure</i>	UNI EN 12390-8	none up to 50 kPa

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

SAFETY

This is a non-toxic alkaline product.
It is recommended to use a mask and gloves while working.
Accidental contact with eyes, rinse thoroughly with water and seek medical advice.

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