



# BI MORTAR SL

## PRODUCT DESCRIPTION

BI MORTAR SL is a shrinkage controlled waterproofing self-levelling mortar to waterproof and smooth, at the same time, 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 as it reinforces and waterproofs in a single application
- It can be mixed with fine gravel when applying high thick casting
- Excellent resistance to negative pressure
- Suitable for both indoor and outdoor application
- Sulphate resistant
- Also applicable on uneven surfaces

## 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, or fixed via CONNECTOR 20 such as reinforcement, with relative 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 begins



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- 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 equivalent to 16÷18% in weight).

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.

## Machine application

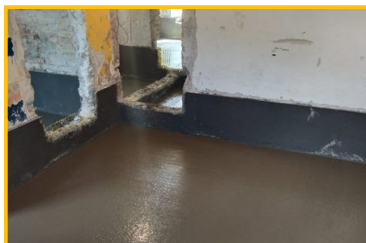
The product can also be applied with a plastering machine with levelling wands after separately mixing the product (for more information contact the Volteco Technical Service).

In this case, always follow the previous application indications.

## 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](http://www.volteco.com)

## CONSUMPTION AND YIELD

17 kg/m<sup>2</sup> 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 area protected from sunlight, humidity and from temperatures below 5 °C.

BIMORTAR SL in the original packaging has a storage time of 18 months

## WARNINGS - IMPORTANT NOTES

Do not add water to extend the pot life.

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.

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

## PHYSICAL AND TECHNICAL SPECIFICATIONS





# BI MORTAR SL

Specification	Values
Appearance	grey powder
Mixture consistency	Fluid
Application temperature	from +5 °C to +30 °C
Workability time	30'
Maximum aggregate size	1 mm
Mixture ratio	100 parts powder 18-19 parts liquid

Parameters subject to company Quality Control	Test method	Values
Specific weight		> 1.9 kg/l
Compressive strength after 1 day after 7 days after 28 days	UNI EN 196-1	> 5 N/mm <sup>2</sup> > 20 N/mm <sup>2</sup> > 25 N/mm <sup>2</sup>
Flexural strength after 1 day after 7 days after 28 days	UNI EN 196-1	> 2 N/mm <sup>2</sup> > 4 N/mm <sup>2</sup> > 5 N/mm <sup>2</sup>
Bond strength	UNI EN 1542	≥ 1,5 N/mm <sup>2</sup>
Permeability in positive pressure	UNI EN 12390-8	none up to 100 kPa
Permeability in negative pressure	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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