

SOLTHERM MB

Universal Base Coat and Adhesive for embedding mesh and installation of mineral wool insulation panels

PRODUCT DESCRIPTION:

- good adhesion to mineral surface and mineral wool
- easy to work and trowel,
- for mineral wool and lamella panels

USE:

SOLTHERM MB is a base coat and adhesive formulated to embed glass fibre mesh in ETICS insulation systems and to bond mineral wool panels with horizontally-oriented fibres and lamellas with vertically-oriented fibres to typical mineral surfaces such as concrete, masonry walls, cement and lime-cement plasters, etc. It is also suitable for bonding MW lamella ceiling boards with bevelled edges on one surface in the SOLTHERM Ceiling Therm - Guard System.

It can also be used to level surface irregularities (up to 5 mm) and smooth out mineral substrates prior to paint coat and thin-coat render application.

SUBSTRATE PREPARATION:

Prior to insulation board installation:

The surface must be structurally sound, even, surface contaminants that may affect adhesion such as dust, grease, bitumen and other barrier materials. Remove any friable parts such as peeling or flaking paint or plaster, laitance or debris from the existing wall. Prime absorptive surface (particularly aerated concrete) with the primer SOLTHERM SP. For smooth surfaces, prime with SOLTHERM CS. Level larger gaps and irregularities with the mortar SOLTHERM LRC. Prior to installation of insulation boards to weak, porous substrates or of unknown condition, carry out an adhesion test. To test, attach a few samples of EPS boards (size 50x100x100 mm) to exterior wall in various spots and pull them off by hand after minimum 3 days. The substrate is sufficiently sound if the failure is in the polystyrene. Otherwise, sand, remove friable or crumbling material or prime to prepare the surface and do the adhesion test again.

Prior to insulation of large-panel buildings, it is recommended to assess the fastening of the outer textured layer in the sandwich panel structures.

Prior to base coat application:

Attach the insulation boards with mechanical fixings (as designed in the insulation design) and sand with coarse sandpaper and remove the sanding dust. Apply a base coat over the washer plates of mechanical fixings. Install corner trims or beads, window profiles, movement beads, diagonal mesh strips at the corners of door and window openings using the adhesive SOLTHERM MB and allow to dry. The surface of the bonded insulation boards must be even and continuous. Fill any interstices or gaps between insulation boards with mineral wool wedges matching coat thickness.

PRODUCT PREPARATION:

Measure the clean water (5.0 ÷ 5.5 litre) into a suitable vessel/bucket and slowly add the adhesive while mixing using a low-speed drill until a homogeneous consistency is achieved. After 5 minutes and another stirring, the mixture is ready to use. Add the same amount of tap water for each packaging. Do not admix, except for water.

APPLICATION:

Attaching of mineral wool panels with horizontally-oriented fibres:

Immediately prior to application of the adhesive to the panel, spread a thin coat of the adhesive over its surface. Apply the adhesive "wet on wet" to the insulation board in strips and dabs i.e. 30-60 mm wide strips. around the perimeter of the board with at least 3 additional dabs of adhesive (for 500 x 1000 mm panels) distributed uniformly over the remaining surface. As soon as the adhesive is applied, place the board on the wall and press firmly with a trowel until it is flush with the previously installed board surface. After pressing to the surface, the well-applied adhesive should cover at least 40% of the surface, and the coat thickness should not exceed 10 mm.

Attaching of mineral wool panels using the notched trowel method

For even and smooth surfaces, insulation boards can be attached using the tooth bed method. Immediately prior to application of the adhesive to the panel, spread a thin coat of the adhesive over the panel surface. Then, apply the adhesive "wet on wet" using a notched trowel (10-12 mm notch size). As soon as the adhesive is applied, place the panel on the wall and press firmly with a trowel until it is flush with the previously installed board surface.

Apply MW insulation panels in a running bond pattern.

Base coat application

Immediately prior to the base coat application, spread a thin coat of the adhesive over the surface. Then, use a notched trowel (8-10 mm notch size) to apply "wet on wet" a continuous layer of the adhesive to a uniform thickness of approx. 3-4 mm and immediately embed the fibreglass mesh into the adhesive so that it is evenly stretched and fully embedded in the base coat. Adjacent mesh strips should overlapped not less than 100 mm at mesh seams. The base coat surface should be even and smooth with no reinforcing mesh fabric visible. If not, once the first coat has dried, apply a second thin coat (approx. 1mm thick) of the adhesive to smooth and even the surface.

Base coat thickness should be between 3 – 5 mm.

LIMITATIONS AND RECOMMENDATIONS:

- Not suitable for areas not damp-proofed against capillary action.
- Before application, protect or mask surfaces such as windows, doors, window sills, etc.
- Allow fresh cement and lime-cement renders to cure for minimum 28 days.
- Plan the surface area to be insulated taking into consideration weather conditions, surface type and workforce.
- Prior to insulation application identify all installations on the building façade or around it to prevent their damaging during mechanical fixing of the insulation (drilling).
- Protect from direct sunlight exposure, precipitation and wind during application operation and drying. Use scaffolding meshes.
- It is not advisable to attach the glass fibre mesh without spreading the adhesive over insulation boards first.
- Do not reduce the base coat thickness, since it can substantially reduce the strength of the coat.
- Avoid extremely thin layer of adhesive as you may experience difficulty with levelling minor irregularities.
- Low temperature, increased humidity and improper air circulation extend the drying and setting time of the adhesive.
- Clean tools and hands with running water immediately after use. After drying difficulties with cleaning may be experienced. Wipe new splashes off soiled surfaces with damp cloth. Once hardened, the material can only be removed mechanically.

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PRECAUTIONS:

Due to alkyd reaction of the product, avoid contact with skin and eyes. In case of eye contact, flush eyes with plenty of water and seek medical advice.

TOOLS:

- Agitator or low-speed mixing drill (400÷500 rpm) with hoop paddle.
- Stainless steel big and small plastering trowel or float
- Stainless steel scraper and trowel
- Bucket
- Coarse hand sander

TECHNICAL DATA:

The following technical data are for the temperature of +23 (±2)°C and relative air humidity of 50 (±5)%. Under other conditions the technical data may vary.

Ambient and surface temperature at application and curing:

from +5°C to +25°C

Relative humidity at application and drying:

up to 80%

Bulk density:

approx. 1.68 g/cm³ (±10%)

Colour:

grey

Workability:

≤ 1.5

Coefficient of heat conductivity λ:

≤ 0.78 W/(m*K)

Diffusion resistance factor μ:

≤ 25

Water absorption after 24h immersion according to ETAG 004:

< 400 g/m²

Drying and setting time of the adhesive after board installation / base coat application:

min. 48h

Packaging:

25 kg bag

No. of containers per pallet and net weight:

48 / approx. 1200 kg

Shelf life:

12 months from the date of production provided on the packaging

NOMINAL COVERAGE:

Ribbon and dab method ≥ 5.0 kg/m²

Notched trowel method ≥ 5.0 kg/m²

Base coat application ≥ 5.0 kg/m²

For insulation board installation the coverage will vary with the surface levelling and condition as well as the percentage of the insulation board face covering with the adhesive. For base coat application, the coverage will vary with the base coat thickness.

To determine precise coverage, perform a test patch on the surface.

Usage is typical usage and may vary between installers. Coverage rates quoted for products will not be guaranteed under any circumstances. The rates quoted are based on site experience but may vary due to site

conditions, operator skills etc. No claim will be allowed relating to coverage of materials.

STORAGE:

Store in intact containers in temp. between +5°C and +25°C. Protect from damp. Store away from the reach of children.

COMPOSITION:

Dry mixture of hydraulic binders, polymers, fine mineral fillers and modifiers.

BOLIX S.A. guarantees product quality but has no control over its application and use. BOLIX takes no responsibility for contractors' and distributors' performance. The information supplied herein is given in good faith based on our current knowledge and latest application methods. The information provided cannot replace designer's and contractor's expertise and does not dismiss anyone from observing good practice and the OHS regulations. Should you have any further queries, carry out necessary tests or contact SOLTHERM Customer Technical Support. The publication of this Technical Data Sheet renders older editions invalid.