

## FOR EPS

## KOMBI

Mineral adhesive/base coat for EPS



## MAIN ADVANTAGES

- High resistance to shrinking cracks
- Optimal impact resistance
- No runoff from the vertical surface
- High adhesion to the substrate and EPS
- Easy to apply
- Universal use (for bonding EPS boards and making a layer reinforced with mesh)
- Contains microfibres and polypropylene fibres

## AREAS OF APPLICATIONS

Mineral base coat intended for fixing insulation EPS boards to the substrate and/or applying base coat in **KABE THERM RENO\***, **KABE THERM SM** and **KABE THERM SM RENO**, **KABE THERM ELASTO**, **KABE THERM AVANT**, **KABE THERM MARMURIT/MOZAIKER**, **KABE THERM MARMURIT COLORATO/MOZAIKER COLORATO**, **KABE THERM CK\*** EWI systems based on EPS. May also be applied for levelling out (unevenness up to 5 mm) and smoothing mineral substrates before applying paints and thin-coat renders. To be applied on all typical mineral substrates (such as concrete, cellular concrete, cement render, cement-lime render, sandstone and other raw surfaces made of bricks, blocks, concrete blocks and other types of ceramic or silicate materials) as well as on substrates covered with well-adhering coating of facade paint or thin-coat render. (after prior inspection of cured product adhesion to the substrate) **KOMBI** base coat may be used as a part of ETICS complex EWI systems (external wall insulation).

## TECHNICAL SPECIFICATION

**Base binder:** hydraulic and polymer binders with modifiers added;

**Volumetric density:** approx. 1.5÷1.6 g/cm<sup>3</sup>;

**Mixing ratio:** ca. 6.0 l of water per 25 kg of adhesive/base coat;

**After adding water the product must be used within:** approx. 2 hours;

**Open drying time:** ≥ 20 min.

**Colour:** light grey;

**Consumption:**

- as adhesive for EPS boards
- as base coat

approx. 4.0 kg/m<sup>2</sup>;  
approx. 4.0 kg/m<sup>2</sup>.

**Temperature of application (air and substrate):** from +5°C to +25°C;

**Packaging:** Disposable paper packaging containing 25 kg of product.

**Storage:** Product should be stored in its original sealed packaging, in dry condition, and protected from moisture and frost.

**Note:** The product must be kept out of the reach of children.

**Shelf life:** Originally sealed products have a 12-month shelf life from the date of production (this is printed on the side of the packaging).

## APPLICATION METHOD

**SUBSTRATE PREPARATION:** Apply to a sound/stable and clean substrate (without cracks and delaminations), degreased, even and dry, and free of biological contamination or chemical efflorescence. In case of algae/fungi growth, the substrate should be cleaned mechanically and then wash with water and disinfect with **ALGIZID**. The substrate must be protected against capillary action, moisture intake and precipitation. Any loose layers not bound to the substrate (i.e. loose render or flaked coatings) should be removed. Old and/or dirty substrates should be washed off and degreased with water and **CLEANFORCE** cleaning agent. If any substrate unevenness exceeds 1 cm, use levelling compound. Absorbent substrates should be primed with **BUDOGRUNT ZG** before levelling compound application. Drying time for the product applied on the substrate in the optimal weather conditions is approx. 3 hours (+20°C, 55% RH). The substrate for applying paints and thin-coat renders must be even, so if the substrate unevenness is significant (5-15 mm), the wall must be first levelled out with levelling compound, and then smoothed with the **KOMBI** adhesive/base coat. Minor unevenness (up to 5 mm) can be levelled out at once and smoothed with **KOMBI** adhesive/base coat. Absorbent substrates should be primed with **BUDOGRUNT ZG** before levelling compound application. Before fixing EPS boards to uncertain substrates, it is necessary to perform an adhesion test. The test involves fixing a few (8-10) EPS samples of 10 x 10 cm dimensions in various places of the facade and then tearing them off after 3 days. The substrate load-bearing capacity is sufficient when the tearing happens in the EPS layer. If the whole sample including adhesive and substrate layer is torn off, then it is necessary to remove the poorly bound layer from the substrate and prime it with **BUDOGRUNT ZG**. When the primer dries, the adhesion test must be performed again. If the test provides a negative result, it is necessary to consider additional mechanical fixing or a special substrate preparation.

**PRODUCT PREPARATION:** Gradually pour the contents of the packaging into a container with a measured amount of clean and cold water (approx. 6 liters) while continuously mixing the mass (with a low-speed mixer fitted with a basket stirrer) until homogeneous mixture is obtained. After waiting for 5 minutes and remixing, the adhesive/base coat is ready for use. After adding water, the adhesive/base coat must be used up within approx. 2 hours (at an ambient temperature of +20°C).

**FIXING OF EPS BOARDS:** A notch trowel method may be used to fix EPS to even substrates. Put some adhesive on an EPS slab with a trowel and using the edge of it spread evenly all over to create a thin coat. While being spread, the adhesive should be pressed to the surface of the slab. Subsequently, an additional amount of adhesive should be spread on the slab by using a notched trowel (minimum notch size: 10 x 10 mm). Once the adhesive/base coat is applied, the slab must be immediately put onto the wall in its appropriate place and pressed to flush it with the neighbouring boards. Boards must be tightly fitted next to each other using staggered method. Excess adhesive coming out from EPS board joints must be removed so that no adhesive is left on the slab edges. Properly applied adhesive should cover the whole slab surface, and its thickness after attaching the slab should not exceed 1 cm. After allowing sufficient time to cure (at least 48 hours), the boards should be fixed by means of applicable mechanical fixings pursuant to the thermal insulation project. In order to get an even surface of all the fitted boards, the whole surface of the EPS board should be sanded with a suitable thick gauge of sandpaper. When fixing EPS boards on uneven substrates, the adhesive should be applied on the boards by means of the ribbon and dab method. The ribbon should be 3÷6 cm wide, and should be applied onto the perimeter of the slab. In addition, 6 to 8 dabs of adhesive (approx. 10÷12 cm diameter) should be evenly placed on the remaining part of the slab. The ribbons must be formed in a prism shape. To do so, spread it with a trowel set at an angle of 45° towards the slab surface. Once the adhesive is applied, the slab must be immediately put onto the wall in its appropriate place and pressed to flush it with the neighbouring boards. Boards must be tightly fitted next to each other using staggered method. Excess adhesive coming out from EPS board joints must be removed so that no adhesive is left along the slab edges. Properly applied adhesive must cover not less than 40% of the slab surface, and the adhesive layer thickness should not exceed 1 cm. After allowing a sufficient curing time (at least 48 hours), the boards should be fixed by means of applicable mechanical fixings pursuant to the thermal insulation project. In order to get an even surface of all the fitted boards, the whole surface of the EPS board should be sanded with a suitable thick gauge of sandpaper.

**REINFORCING COAT APPLICATION:** First the edges of window and door openings should be reinforced by means of fixing to their corners diagonally running (i.e., at an angle of 45°) fibreglass mesh (with the dimensions of 25 x 30 cm) by using **KOMBI** base coat. The reinforcing coat (base coat + reinforcing mesh) must be applied on even, clean and previously sanded surfaces of EPS boards, not earlier than 3 days from the date of board installation. Apply a continuous and even layer of the base coat onto the substrate (with the thickness of approx. 3÷4 mm) as wide as the reinforcing mesh is. Spread the base coat with a notched trowel and immediately dip fibreglass reinforcing mesh into it. The reinforcing mesh should be evenly stretched and completely immersed in the base coat. If necessary, in order to make the surface more even, an additional thin layer of base coat can be applied. The neighbouring mesh stripes must overlap not less than 10 cm. Any trowel marks should be sanded down with a sandpaper. The thickness of the reinforcing coat (base coat + one layer of reinforcing mesh) should be 3-5 mm.

**DRYING:** The drying time for the reinforcing coat is min. 3 days (+20°C, 65% RH). After this period of time, you can apply a primer and after its curing is completed, a render. **Note:** Drying time may be longer due to low temperatures and high relative humidity.

**USEFUL HINTS:** In order to avoid cracks and unevenness, it is necessary to complete a single application to any architectural element in one working cycle. The base coat should be applied on dry days at temperatures between 5-25°C. All tools must be cleaned with water after finishing work. Avoid working on surfaces exposed to direct sunlight, in strong winds or at a high air humidity. To protect a still wet reinforcing coat against inclement weather conditions, scaffolding should be covered with some protective netting or tarpaulins. **Note:** The product is alkaline, therefore, it is necessary to protect eyes and skin. Safety clothing (PPE) must be worn while carrying out any installation work. In case of contact with eyes, immediately rinse them thoroughly with plenty of water. If irritation develops, seek medical assistance.

\* if a product of EWI system is used, the manufacturer provides a guarantee only when all **KABE THERM RENO**, **KABE THERM SM** AND **KABE THERM SM RENO**, **KABE THERM ELASTO**, **KABE THERM AVANT**, **KABE THERM MARMURIT/MOZAIKER**, **KABE THERM MARMURIT COLORATO/MOZAIKER COLORATO**, **KABE THERM CK** system components are applied.