

FOR MINERAL WOOL

KOMBI WM1

Mineral adhesive
for mineral wool



MAIN ADVANTAGES

- High resistance to shrinking cracks
- Optimal impact resistance
- Very high vapour permeability
- High adhesion to the substrate and mineral wool
- Easy to apply
- Economical application
- Contains microfibrres and polypropylene fibres

AREAS OF APPLICATIONS

Adhesive intended for bonding insulation boards made of mineral wool to the substrate in **KABE THERM MW*** and **KABE THERM IN MW*** and **KABE THERM SG*** EWI systems. It may be used for sticking facade, lamella and dual-density mineral wool boards. 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. **KOMBI WM1** adhesive may be used as part of ETICS systems (external thermal insulation composite systems). **Note:** For applying a reinforcing coat it is necessary to use **KOMBI WM2** base coat.

TECHNICAL SPECIFICATION

Base binder: hydraulic and polymer binders with modifiers added;
Volumetric density: approx. 1.5 g/cm³;
Mixing ratio: ca. 6.0 l of water per 25 kg of adhesive;
After adding water, product must be used within: approx. 2 hours (20°C, 50% RH);
Open drying time: ≥20 minutes;
Colour: light grey;
Consumption: while installing facade and dual-density mineral wool boards ca. 5.0 kg/m², while installing lamella mineral wool boards ca. 5.5 kg/m².

Temperature of application (air and substrate): from +5°C to +25°C;
Packaging: Disposable paper packaging containing 25 kg of product.
Storage: The product should be stored in its original sealed packaging, in dry room, and should be 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, degreased, even and dry, and biological or chemical efflorescence free. 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 or adhesive is being applied. Before fixing thermal insulation boards to uncertain substrates, it is necessary to perform an adhesion test. The test involves fixing a few (8-10) mineral wool 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 thermal insulation. 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 gives a negative result, it is necessary to consider additional mechanical fixing or special substrate preparation.

PRODUCT PREPARATION: Gradually pour the contents of the packaging into a container with a measured amount of clean 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 is ready for use. After adding water, the adhesive must be used up within approx. 2 hours (20°C, 50% RH).

FIXING OF FACADE AND DUAL-DENSITY MINERAL WOOL BOARDS: The prepared adhesive to be spread in the places where the adhesive will be applied later on 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 boards must be removed so that no adhesive is left on 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 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.

FIXING OF LAMELLA MINERAL WOOL BOARDS: Using a stainless steel trowel, the prepared adhesive should be spread from the side it is applied on. Then, thin adhesive should be applied on the surface prepared in such a way by means of even layer with the use of toothed trowel (with the tooth dimensions of 12 x 12 mm). Afterwards, the slab must be immediately put onto the wall in its appropriate place and pressed with the trowel. Properly applied adhesive should cover the whole slab surface, and its thickness after attaching the slab should not exceed 1 cm. Mineral wool to be stuck in layers from the bottom to the top assuring the alternate boards system. After allowing sufficient time for adhesive to set (at least 48 hours), the boards stuck should be fixed by means of applicable mechanical fixing pursuant to the thermal insulation project.

DRYING: It is assumed that the adhesive initial setting period is min. 3 days (+20°C, 65% RH). After the period of time, one can attempt to perform the fibreglass reinforcing coat. In order to level the possible unevenness, the surface of assembled boards may be ground with thick sand paper. **Note:** Low temperature and high relative humidity essentially prolong adhesive drying time. For the purposes of performing reinforcing coat it is necessary to apply **KOMBI WM2** base coat.

USEFUL HINTS: Drying time may be longer due to low temperatures and high relative humidity. Application and drying of adhesive requires dry days and temperatures between 5-25°C. All tools to 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 thermal insulation coat against inclement weather conditions, scaffolding should be covered with some protective netting.

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 MW** or **KABE THERM IN MW** or **KABE THERM SG** system components are applied.