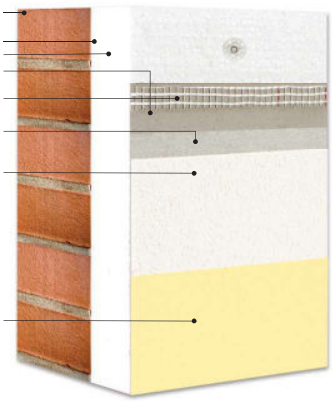
EPS-BASED

KABE THERM EPS

External wall insulation (EWI) system with silicone, polysilicate, acrylic and mineral external render and renders for spray application from the AKORD line

SYSTEM CONSTRUCTION



MAIN ADVANTAGES

- Reduction of building heating costs
- Improved microclimate inside the building
- Wall protection against adverse weather conditions
- Protection against the growth of algae and fungi
- A wide range of types, colours and decorative effects of renders
- Possibility of using AKORD line spray-applied renders

TECHNICAL DATA

Type of thermal insulation: EPS boards with the following code: EPS-EN 13163-T(2)-L(2)-W(2)-S(5)-P(5)-BS75-DS(N)2-DS(70,-)2-TR80
Thickness of thermal insulation: from 5 to 30 cm inclusively;
Thermal insulation fixing: adhesive bonded or partially adhesive bonded system with additional mechanical fixing or mechanical fixing with additional bonding;
Use of mechanical fixings: as specified in technical design;
Reinforcing mesh: system reinforcing fibreglass mesh;
Fire classification: non-fire spreading system (NRO);
Colours: natural white and colours according to KABE and NCS colour charts or a sample provided (for NOVALIT T and ARMASIL T renders only in colours that can be obtained by using inorganic pigments);
Textures: solid / scraped / mixed (ARMASIL T render only in solid texture);
Grain size: 1.5 mm; 2.0 mm; 2.5 mm; 3.0 mm (for PERMURO AKORD render only grain size of 1.5 mm and 2.0 mm); ARMASIL T AKORD and NOVALIT T AKORD and MINERALIT T AKORD only grain size of 1.5 mm
Adhesion:
- to concrete ≥ 0.25 MPa;
- to EPS ≥ 0.08 MPa;

Interlayer adhesion: ≥ 0.08 MPa:
Surface layer water absorption (after 24 hours): < 0.5 kg/m^2;
Impact resistance for the system with render:
- **ARMASIL T, ARMASIL T AKORD, ARMASIL T - DECOR BRICK, NOVALIT T, NOVALIT T AKORD, NOVALIT T - DECOR BRICK, PERMURO, PERMURO AVANT** cat. II
- **ARMASIL T - DECOR SMOOTH TEXTURE, PERMURO AKORD, MINERALIT T, MINERALIT T AKORD** cat. III

AREAS OF APPLICATION

The **KABE THERM RENO** EWI system is another EPS-based thermal insulation system for external walls*. It is applied in single- and multi-family housing construction industry, public utility and industrial buildings, to the height of up to 25 m (for the buildings erected before 1 April 1995 to the height of eleventh story, inclusive) and in frame buildings. Because of its simple installation technology and low implementation costs, it is most frequently used for the thermal upgrade of buildings constructed using old energy-consuming technologies (non-compliant with applicable thermal insulation requirements). The system can be used on walls made of fine masonry components (e.g., bricks, blocks, stone, etc.) or concrete (poured on site or in the form of prefabricated slabs). The system can be used on new walls, as well as for renovation of the existing ones. It is also possible to use it on horizontal or inclined surfaces, which ensure proper drainage of rainwater and snow without causing their retention. The external system layer can be made using **ARMASIL T**, **ARMASIL T AKORD**, **ARMASIL T - DECOR** SMOOTH TEXTURE, **ARMASIL T** - DECOR BRICK silicone renders, **NOVALIT T**, **NOVALIT T AKORD**, **NOVALIT T** - DECOR BRICK polysilicate renders, **PERMURO**, **PERMURO AKORD**, **PERMURO AVANT** acrylic renders, as well as **MINERALIT T** and **MINERALIT T AKORD** mineral renders, available in a wide range of colours and textures and in the wood/board effect. After wetting the **ARMASIL T** silicone render, the effect of water molecules "being repelled" by silicone resin is observed on its surface. This effect protects façades against precipitation and reduces soiling deposition.

Layer type	Name and description of the product	Average coverage
ADHESIVE LAYER	**KOMBI S adhesive or KOMBI adhesive/base coat**	approx. 4.0 kg/m^2**
THERMAL INSULATION	**White or graphite EPS boards with the code EPS-EN 13163-T(2)-L(2)-W(2)-S(5)-P(5)-BS75-DS(N)2-DS(70,-)2-TR80** – cured EPS thermal insulation boards	1.0-1.10 m^2/m^2
	Mechanical fixings (optionally) – pins for fixing thermal insulation to the substrate	Type, quantity and layout as per technical design
REINFORCING LAYER	**KOMBI** adhesive/base coat – for applying reinforcing layer	approx. 4.0 kg/m^2
	System fibreglass mesh: KABE 145, KABE 160, – anti-alkali impregnated mesh, completely immersed in **KOMBI** base coat	1.10 m^2/m^2 of thermal insulation
FINISH COAT	**Primer (dedicated for the same type of render): ARMASIL GT, NOVALIT GT, PERMURO GT, MINERALIT GT**– a product that improves adhesion and limits the substrate water absorbency	approx. 0.20 l/m^2
	External coat of render: ARMASIL T, ARMASIL T AKORD, ARMASIL T - DECOR BRICK, ARMASIL T - DECOR SMOOTH TEXTURE, NOVALIT T, NOVALIT T AKORD, NOVALIT T - DECOR BRICK, PERMURO, PERMURO AKORD, PERMURO AVANT, MINERALIT T and **MINERALIT T AKORD** – protective and decorative layer that protects the system against adverse weather conditions and mechanical damage; texture and colour of the render to be chosen	grain size 1.5 mm – 2.3-2.5*** kg/m^2 grain size 2.0 mm – 3.0 kg/m^2 grain size 2.5 mm – 3.7 kg/m^2 grain size 3.0 mm – 4.5 kg/m^2
OPTIONAL PAINT COAT ON RENDERS FOR SPRAY APPLICATION	**ARMASIL F** or **SILCO F** paint coating (on mineral renders with **HYDROPOR** primer) or **NOVALIT F** (on mineral renders with **NOVALIT GF** primer) or **CALSILIT F** (on mineral renders with **CALSILIT GF** primer) – protective and decorative layer protecting against adverse weather conditions and providing an attractive colour.	from 0.36 l/m^2 (when applied twice and depending on the render grain size)

*** Depending on the render type
Note: Due to the excessive heating of dark-coloured façades, it is not recommended to use colours featuring a low light reflection coefficient (Y < 20%).
The manufacturer grants a warranty only when a complete EWI system is used (all components) in accordance with the "Guarantee card for EWI systems".

The information included in this document does not cover all the aspects of the product/system use. Therefore, the information should be verified each time due to the possibility of justified differences depending on the method of carrying out work, the type of substrate and other external conditions.