

# Klima Flex

High performance, mineral Adhesive&Finishing product, specific for ETICS KlimaExpert ETA guaranteed performance insulation panelling systems. Product specifically for use in the Kerakoll Panelling system with European Technical Approval-ETA-under EAD 040083-00-0404. Formulated for high resistance laying with improved flexibility of all heat-insulating panels for panelling systems, in particular EPS.

Klima Flex is specific for the bonding and finishing of EPS heat-insulating panels of the KlimaExpert ETA systems on concrete, brick, cement-based plaster/render and mineral finishing products. Extra white. For internal and external use.

1. High degree of flexibility to adapt to the stresses induced by the EPS heat-insulating system
2. Excellent workability for a softer application when used as a finishing product and a faster one when used as an adhesive
3. Can be applied by spraying using plastering machines to speed up the finishing phase
4. Extra white
5. Grain finish for fast laying and aesthetically perfect jobs
6. Product in the KlimaExpert ETA system



## Rating 5

- ✓ Regional Mineral  $\geq 60\%$
- ✓ Recycled Regional Mineral  $\geq 30\%$
- ✓ CO<sub>2</sub> Emission  $\leq 250$  g/kg
- ✓ VOC Low Emission
- ✓ Recyclable

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## Areas of application

### → Use

Bonding and finishing of panelling systems for:

- KlimaExpert ETA systems
- external insulation
- internal insulation
- bonding of insulation slabs under roofing tiles

On heat sealed insulating systems (ETICS) made of extruded polystyrene, expanded polystyrene and polystyrene foam for specific use in ETICS

plinths, polyurethane, phenolic resin, cork, mineral and glass wool, wood fibre, aerogel on concrete, brick, cement-based plaster/render and mineral finishing products.

Do not use on walls coated with gypsum or ready-mixed gypsum-based plasters; to apply ceramic or natural stone tiles; on wooden or metal supports.

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## Instructions for use

The instructions for use refer, where required, to the Italian Technical Report UNI / TR 11715 "Heat-insulating products for buildings - Design and installation of external heat-insulating systems (ETICS)".

### → Preparation of substrates (UNI / TR 11715 - paragraph 9)

The substrate must be perfectly even, solid (i.e. free of loose or easily removable debris), dimensionally stable, clean and dry. Substrates that are not compact must be treated in advance with Rasobuild Eco Consolidante stabilizing consolidant. Check that there are no traces of de-bonding agent on the concrete.

Any uneven areas should be corrected in advance with products in the Geolite or Geocalce range. Do not apply on substrates when the temperature is above +30 °C.

### → Preparation

Klima Flex is prepared by mixing 25 kg of powder with the amount of water indicated on the bag. The mixture is obtained by pouring water into the clean container and then gradually adding the powder. The mixing process can be performed in a horizontal cement mixer or in a bucket (working manually or with a low-rev, mechanical stirring device) until a smooth and lump-free mortar is obtained.

### → Application (UNI / TR 11715 - paragraph 9)

As an adhesive: according to the irregularity of the substrate, Klima Flex can be applied as

an external rim with central spots or using a suitable toothed spreader to form a solid bed directly on the panel. The slabs must be pressed firmly onto the support so as to distribute the adhesive as evenly as possible and thus guarantee total adhesion of the slab.

For Klima Airplus and Airtech panels, apply the adhesive on the dove-tail adhesion-promoter ribbing.

Laying and any adjustment of the panels must always be carried out when the adhesive is fresh and just laid: any movement or adjustment of the panels once drying has started may cause the adhesion to be poor or the panels to come loose. As a finishing product: when used as a finishing product on heat sealed panels, a first coat of Klima Flex is applied in an even layer using a smooth spreader; a suitable alkali-resistant, glass fibre mesh for ETICS use should then be sunk into the layer while it is still fresh, pressing it with the spreader. Once the first coat has dried, apply a second coat over the top, covering the mesh completely to create a finished surface which, on drying, can be used to lay high-thickness decorative coverings. Protect the panels from rainfall for at least 48 hrs. Klima Flex can be applied by spraying using plastering machines.

### → Cleaning

Residual traces of Klima Flex can be removed from tools with plain water before the product has hardened.

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## Special notes

→ When laying heat-insulating panels, always follow the indications provided by the manufacturer of the panels themselves.

→ Laying on gypsum: on walls coated with gypsum, scagliola or ready-to-use gypsum-based plasters/renders the substrate must be treated with Rasobuild Eco Consolidante before applying Klima Flex.

## Certificates and marks



\* Émission dans l'air intérieur Information sur le niveau d'émission de substances volatiles dans l'air intérieur, présentant un risque de toxicité par inhalation, sur une échelle de classe allant de A+ (très faibles émissions) à C (fortes émissions).

## Abstract

Application and finishing of the thermal insulation panels, with insertion of alkali-resistant, glass fibre mesh for ETICS use by Kerakoll Spa between the two layers, is to be carried out on a substrate that is even, solid, clean and dry. The panels must first be bonded and then surface finished using single-component, mineral adhesive&finishing product suitable for the high-performance and improved flexibility bonding and finishing of all types of heat-insulating panels for ETICS use, GreenBuilding Rating 5, such as Klima Flex by Kerakoll Spa, specific for the creation of insulation panelling systems, such as KlimaExpert ETA. Klima Flex adhesive&finishing product forms part of the KlimaExpert ETA systems with European Technical Approval - ETA - under EAD 040083-00-0404. Coverage will be  $\approx 3.5 - 5 \text{ kg/m}^2$  for bonding and  $\approx 1.6 \text{ kg/m}^2$  for the finishing coat per mm of thickness.

### Technical Data compliant with Kerakoll Quality Standard

Appearance	White pre-mixed	
Apparent density of dry, hardened product	1370 kg/m <sup>3</sup>	EN 1015-10
Mineralogical nature of inert material	silicate - crystalline carbonate	
Nominal Grading	$\approx 0 - 1400 \mu\text{m}$	EN 1015-1
Ash content at +450 °C	96.0%	EAD 040083-00-0404
Ash content at +900 °C	60.9%	EAD 040083-00-0404
Water retention	> 94%	EAD 040083-00-0404
Shelf life	$\approx 12$ months from production in the original sealed packaging, protect from humidity	
Pack	25 kg bags	
Mixing water	$\approx 5 \text{ l} / 1 \times 25 \text{ kg bag}$	
Specific weight of the mixture	$\approx 1,7 \text{ kg/dm}^3$	EN 1015-6
Pot life	$\geq 5 \text{ h}$	
Temperature range for application	from +5 °C to +30 °C	
Maximum thickness obtainable as adhesive	$\leq 15 \text{ mm}$	
Coverage:	$\approx 12 \text{ h}$	
- as an adhesive	$\approx 3 - 5 \text{ kg/m}^2$	
- as a finishing coat	$\approx 1.6 \text{ kg/m}^2$ per mm of thickness	

Values taken at +23 °C, 50% R.H. and no ventilation. Data may vary depending on specific conditions at the building site.

**Performance****VOC Indoor Air Quality (IAQ) - Volatile organic compound emissions**

Conformity	EC 1 plus GEV-Emicode	GEV certified 10157/11.01.02
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**HIGH-TECH**

Thermal conductivity ( $\lambda_{10, dry}$ )	0.44 W/(m K)	EN 1745
Specific thermal capacity (c)	1.0 kJ/(kg K)	EN 1745
Adhesion to concrete after 28 days	$\geq 1.1$ N/mm <sup>2</sup>	EAD 040083-00-0404
Adhesion to masonry after 28 days	$\geq 0.8$ N/mm <sup>2</sup>	EAD 040083-00-0404
Adhesion between adhesive and EPS	$\geq 0.2$ N/mm <sup>2</sup> (EPS cohesive tear)	EAD 040083-00-0404
Water capillary absorption	0.34 kg/m <sup>2</sup>	EAD 040083-00-0404
Compressive strength	$\geq 10$ MPa	EN 1015-11
Resistance to the diffusion of water vapour	$\mu$ 15	EN 1015-19
Flexural strength	$\geq 4$ MPa	EN 1015-11
Reaction to fire	Class A2-s1, d0	EN 13501-1
Working temperature	from -15 °C to +80 °C	

Values taken at +23 °C, 50% R.H. and no ventilation. Data may vary depending on specific conditions at the building site.

## Warning

- Product for professional use
- abide by any standards and national regulations
- use at temperatures between +5 °C and +30 °C
- only use water when mixing up the powder: do not use latex or other additives
- provide suitable mechanical hooks in compliance with current regulations
- do not use the adhesive to correct substrate irregularities
- do not move the panels once the adhesive has started to harden
- do not lay on gypsum, metal or wood
- do not lay on damp substrates
- protect the coated surfaces from rain for at least 48 hours
- if necessary, ask for the safety data sheet
- for any other issues, contact the Kerakoll Worldwide Global Service +39 0536 811 516 - [globalservice@kerakoll.com](mailto:globalservice@kerakoll.com)



The Rating classifications refer to the GreenBuilding Rating Manual 2013. This information was last updated in January 2023 (ref. GBR Data Report – 02.23); please note that additions and/or amendments may be made over time by KERAKOLL SpA; for the latest version, see [www.kerakoll.com](http://www.kerakoll.com). KERAKOLL SpA shall therefore be liable for the validity, accuracy and updating of information provided only when taken directly from its institutional website. The technical data sheet given here is based on our technical and practical knowledge. As it is not possible for us to directly check the conditions in your building yards and the execution of the work, this information represents general indications that do not bind Kerakoll in any way. Therefore, it is advisable to perform a preliminary test to verify the suitability of the product for your purposes.