CLIMAPLUS

CLIMABOND THC 403

ADHESIVE FOR THERMAL INSULATION PLATES

CLIMABOND THC 403 is a specialized adhesive for outdoor thermal insulation systems for buildings (ETICS). It is used for bonding thermal insulating plates from extruded or expanded polystyrene (EPS, XPS), glass wool and rock wool on any type of building surfaces. It consists of cement, quartz sand with 0.5 mm maximum granule, limestone fillers, ameliorative additives and acrylic resins. THC 403 presents a very strong adhesion on all the usual substrates, high elasticity, resistance to frost and humidity. It is suitable to use both indoors and outdoors. THC 403 is a CS IV adhesive mortar that complies with the EN 998 European standard.



Advantages:

- Produced with quartz sand.
- Suitable for the attachment of thermal insulating plates.
- Local reinforcement of surfaces that develop cracking tensions.
- Strong resistance to elastic deformation.
- Does not contain organic solvents.
- Resistance against aging.
- Resistance against oils and solvents.
- Strong adhesion to the substrate.

EN 998

CE

LOW VOC

ISO 14001

ISO 9001

Hellenic product

EPD

INTERNATIONAL EPD SYSTEM

TECHNICAL CHARACTERISTICS

Packaging:

Valve paper bags • 25kg

Application:

Adhesive for thermal insulating plates for ETICS systems. On substrates of concrete, lightweight concrete, bricks, cement blocks, aerated concrete, mortars etc.

Shades:

Available in grey.

Storage:

On wooden palettes and in a dry environment with temperature above 0℃ for 12 months from the production date.

Consumption:

The consumption of CLIMABOND THC 403 is approximately 3,5-5,0 kg/m^2. It depends on the type of thermal insulating plates, the tools and the method of application.

Tools cleaning:

With water immediately after the application.

FIELDS OF APPLICATION

CLIMABOND THC 403 is used as an adhesive for thermal insulating plates for the outdoor thermal facade system (ETICS) of THRAKON.
For strong bonding of:
- Extruded polystyrene (XPS)
- Expanded polystyrene (EPS)
- Hard glass wool
- Cork

On substrates of:
- Concrete
- Lightweight concrete
- Bricks
- Cement blocks
- Aerated concrete (YTONG)
- Self-levelling floors
- Mortars
- Level masonry with filled joints

CLIMABOND THC 403 adhesive can be used in combination with glass fiber mesh in order to cover the joints of different types of masonry and the conduits made by electricians and plumbers, to reinforce the edges of the openings (in doors and windows) in order to avoid future cracking.

SUBSTRATE PREPARATION

The application substrate must be even, free from frail and foreign parts, like residues of mud, plaster, color, oils and free from large crevices. Additionally, the substrate must be stable and free from shrinkage and deformation tensions. It also must not accept any vibrations. Place the plates' guides and supports wherever it is necessary.

APPLICATION TEMPERATURE

During the application and also during the following 24 hours the ambient and the substrate temperature must be between +5℃ and +35℃. The adhesive can be cleaned with water while it is still moist. After it hardens, it is removed mechanically. Application is not recommended when there is a frost forecast for the following 24 hours, under wet conditions (rain) or on masonries directly exposed to intense solar radiation or warm substrates.

APPLICATION

In a clean container we add 6.0 litres of clean water and we gradually empty the content of a 25 kg of the CLIMABOND THC 403 product while mixing continuously with an electrical agitator, in order to produce a homogenous mortar mass. Allow the produced mixture to mature for 5 minutes and briefly reagitate. The mixture is ready to use within the next 2 hours. After the preparation of the mixture, do not add additional water to correct the workability of the mortar. This shall lead to a decrease of its resistances and to an increase of its shrinkage.

Application as adhesive

Application on level surfaces
CLIMABOND THC 403 is spread on the thermal insulating plate using the even side of the spatula and the adhesive layer is then combed evenly with its toothed side.

Application on uneven surfaces
CLIMABOND THC 403 is spread with a trowel around the perimeter of the thermal insulating plate and on the center point. We press the thermal insulating plate firmly on the wall in order to ensure the uniform contact of the adhesive. The final surface must be completely levelled.

The open time is 15 minutes after the adhesive is applied. Any surplus adhesive must be removed from the joints. If the adhesive dries before the thermal insulating plate is applied, remove it and apply a fresh layer.

PRECAUTIONS

The CLIMABOND THC 403 product contains cement and reacts with water to produce an alkaline solution. For this reason protect your eyes and skin. In case of contact rinse with plenty of water. In case of contact with eyes seek medical advice immediately. Read the information on the label and in the products Technical Brochure before use. Wear appropriate protective clothing and gloves. The product's Safety Sheet is available to professionals upon request.

Technical characteristics	Units	Standard	Value
Appearance			Dry powder
Color			Grey
Application thickness	mm		10
Application temperature	^{o}C		+5 to +35
Maximum grain size	mm		0.5
Maturing time	min		5
Workable time	h	EN 1015-9	1.5
Correction time	min	EN 1015-9	>15
Open time	min	EN 1015-9	15
Resistance to the detachment of the adhesive from the EPS plate	N/mm^2	EN 13494	>0.08
Resistance to the detachment of the adhesive from the substrate	N/mm^2	EN 1542	>0.25
Ready to use	h		15-20
Consumption	kg/m^2		3.5 – 5
Water demand (per 100 g of dry mortar)	ml water		24

*Note: The measurements were taken in laboratory environment under normal temperature and relative humidity conditions (+23^{0}C, 50%). It is possible for them to vary depending on the conditions prevailing at the worksite (temperature, humidity, absorbability of the substrate).

The technical information and instructions contained in the present brochure and referring to the application and end use of Thrakon products are based on the up to now know-how and experience of the Company with regards to the products and are provided in good faith as long as such products are stored, used and applied as per Thrakon recommendations. Due to the inability, on our part, to directly inspect the conditions prevailing at the worksite as well as the application procedures of the product, the Company does not provide any guarantee with regards to the adequacy of its products for specific purpose while the Company shall not bear any legal responsibility based on the information stated in the present brochure or any other written, oral, or otherwise provided recommendations and instructions. The users of the products are advised to perform a limited surface testing of the products adequacy for the eventual application and use intentions. Thrakon reserves the right to modify the features of its products without prior notification. All orders shall be approved only following acceptance of the above and under the eventual Commercial Policy terms of the Company. The issuance of the present brochure voids any prior version.
Version E: 26/06/2026