

THC 403

ADHESIVE FOR THERMAL INSULATION PLATES

ACCORDING TO
EN13499 &
ETAG 004

DESCRIPTION

The THC 403 product is a specialized adhesive for outdoor thermal insulation systems for buildings (ETICS). It is used for bonding of 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 0.5mm maximum granule, limestone

fillers, ameliorative additives and acrylic resins. THC 403 presents a very strong attachment on all the usual substrates, high elasticity, resistance to frost and humidity. It is suitable to use both indoors and outdoors. THC 403 adhesive complies with EN 13499 and ETAG 004 European standards.

FIELDS OF APPLICATION

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

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

ADVANTAGES - CHARACTERISTICS

- It is produced with quartz sand
- Suitable for the attachment of thermal insulating plates
- Suitable for the local reinforcement of surfaces that develop high cracking tensions during plastering.
- Strong resistance to elastic deformation
- Strong adhesion
- Strong resistance – Rapid application
- Resistance to humidity and frost
- Excellent workability
- It complies with EN 13499 & ETAG 004 European standards.

SUBSTRATE PREPARATION

The application substrate must be even, free from frail and foreign parts, like e.g. residues of mud, plaster, colour, oils, etc. and without any large crevices. Additionally, the substrate must be stable and

free from shrinkage and deformation tensions. Also it must not accept any vibrations. Place the plates' guides and supports wherever it is necessary.



APPLICATION

In a clean container we add 6.0 litres of clean water and we gradually empty the content of a 25 Kg bag of the 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 reagitator. The mixture is ready to use within the next 4 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:

THC 403 is spread on the thermal insulating plate using the even side of the spatula and the adhesive layer is then combed uniformly with its toothed side.

Application on uneven surfaces:

THC 403 is spread with a trowel around the perimeter of the thermal insulating plate and on the centre 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.

During the application and also during the following 24 hours the ambient and the substrate temperature must be between +5 °C and +35 °C. The adhesive can be cleaned with water while it is still moist. After it hardens, it is removed mechanically.

CONSUMPTION

The consumption of THC 403 is approximately 3,5 – 4,0 g/m². It depends on the type of thermal insulating plates, the tools and the method of application.

PACKAGING - STORAGE

The product is packaged in 25Kg valve paper bags and is stored on wooden palettes and in a dry environment with temperature above 0 °C for 12 months from the production date.

CLEANSING OF TOOLS AND MACHINES

With water immediately after use.

NOT RECOMMENDED

When there is a frost forecast for the 24 hours following the application of the product.
Under wet conditions (like rain).

On masonries directly exposed to intense solar radiation or on warm substrates.

PRECAUTIONS

TCH 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 product's Technical Brochure before use. Wear appropriate protective clothing and gloves. The product's Safety Sheet is available to professionals upon request.

The technical information and instructions of the present leaflet regarding the application and final use of Thrakon products are based on the Company's current know-how and experience regarding the products and are supplied in good faith since they are stored, used and applied according to Thrakon's recommendations. Due to inability to perform a direct check of the conditions in the work site and of the product's application procedure, the Company provides no guarantee regarding the suitability of its products for a specific purpose and also it bears no legal responsibility based on the written information of this leaflet, on written or verbal recommendations and instructions. The users of the products are advised to examine the suitability of the products for the specific application and intention of use by conduction a trial test. Thrakon reserves the right to modify the properties of its products without any prior notice. All orders are accepted only after the acceptance of the above as well as under the current terms of the Commercial Policy of the Company. The issue of the present technical leaflet replaces any previous issue.



ACCORDING TO EUROPEAN STANDARDS EN 13499 & ETAG 004

TECHNICAL CHARACTERISTICS	UNITS	STANDARD	VALUE
Appearance			Dry powder
Color			Grey
Application thickness	(mm)		10
Application temperature	(°C)		-30 to +90
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
Behavior in heat frost cycles			Excellent
Ready to use	(h)		15-20
Consumption	(Kg/ m ²)		3,5-4,0
Water demand	(ml water / 100g of dry mortar)		

Note: The measurements were taken in laboratory environment under a temperature of +23°C, Relative humidity 50 % and without ventilation. It is possible for them to vary depending on the conditions prevailing at the worksite, such as temperature, humidity, ventilation, absorability of the substrate.

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