

# THERMOPROTECT SILICON

## Information

THERMOPROTECT SILICON is a readymade silicon-acrylic copolymer based pasty render for use as finish coat in an Exterior Thermocoat Insulation and Energy Saving Systems as a white or ready colored product offering supreme water repellency and premium vapor permeability. These properties allow building structure to “breathe” gaining extremely resistance for the film to harsh weather condition and also increased lifetime, but also the same for the structure. It enhances excellent workability applying easily without spill or sag. It adheres perfectly in any kind of building material having great elasticity with out cracking in the film thickness of application instead other type of cemented products. It is almost odorless and it can be used also for interior application. Finished surface delivers a smooth decorative option depending on the film and maximum aggregate thickness desired.

## Properties

*Color:* White and selected shades through THE XRO.MA COLOR SYSTEM.

*Density:* 1.88 ± 0.05 g/ml  
(EN ISO 2811-1)

*pH:* 8-9.5  
(EN ISO 19396-1)

*Vapor Permeability:* Sd=0.24±0.02 m  
(EN ISO 7783, 0.14<Sd <1.4, medium, V2)

*Water Permeability:* w=0.069 ± 0.02 kg/m<sup>2</sup>h<sup>0.5</sup>  
(EN ISO 1062-3: 2008) (w<0.10, low, W3)

*Adhesion:* ≥1.2 MPa  
(EN 1542)

*Thermal Conductivity:* 0.70 W/ (m K)  
(EN 1745)

*Fire resistance:* CLASS B-s<sub>2</sub>, d<sub>0</sub>  
(EN ISO 13501-1)

*Drying time:* 5-7 hours (+23°C)

## Substrate Preparation

THERMOPROTECT SILICON is applied in all kind of relevant building materials older and new like cemented boards, other plasters, concrete, bricks, gypsum boards, wooden boards etc. after their preparation with adequate priming. Substrate should be clean and dry free of dust and loose material, rust and oily substances that can create

loss of adhesion. In case of big voids or cracking's these should be filled with adequate materials. Priming follows in case of Acrylic Primer after 1:3 to 1:4 dilution with water or Micronized Primer with 50% dilution with water (this in case of dust or loose particles is mostly suggested).

S-PLASTER PRIMER is proposed for homogeneity of color between substrate and finish coat. In case of very smooth substrate together/or with low absorption a QUARTZ PRIMER is suggested.

All primers consumption depending on surface absorption is between 100-200 gr/m<sup>2</sup>

## Application

Product is slowly agitated for homogenation for short time so that air bubbles are not incorporated. Then product is applied with metallic trowel or plastering machine equipment. Following until 10 minutes time the appliance is homogenized with plastic trowel and let dry. Open time and subsequently overall drying time is greatly depended from higher to lower temperatures of environment during application and also to higher than 80% humidity of air conditions or even from diversity of surface absorbance.

Consumption is theoretical evaluated as 1.75 kg/m<sup>2</sup> per mm of film thickness, but practically experience shows that consumption can be described with following table.

TYPE	FILM THICKNESS mm	KΑΤΑΝΑΛΩΣΗ
THERMOPROTECT SILICON 1mm	1 mm	1.70-1.80 Kg/m <sup>2</sup>
THERMOPROTECT SILICON 1.5mm	1.5 mm	2.40-2.60 Kg/m <sup>2</sup>
THERMOPROTECT SILICON 2mm	2mm	3.20-3.40 Kg/m <sup>2</sup>

Tools should be cleaned with water and detergent immediately after use.

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## Notations

Application and drying should be performed in 5-35°C and humidity not more than 80 % also application surface should be protected from rain and frost conditions. In case of lower than 5 °C and humidity exceeding 80% it is expected that drying would be quite slower.

Colors involving different batches might be slightly different due to the nature of aggregates of product. It is suggested that for each different application side one batch should be used or in case of different batches there should be mixing between them before application. Slight Color differences may occur also from environmental variations of temperature, humidity or substrate situation.

## Packaging

Product is delivered in 25 Kg.

## Life time -Storage

Shelf-life of product in package is 24 months. It should be stored between 5-35 °C. protect the product package against direct sunlight and frost

## Volatile Organic Compounds

According to Directive 2004/42/CE (Annex II, table A), the maximum allowed VOC content for the product subcategory c, type WB is 40 g/lit (2010) for the ready-made product. The ready-made product THERMOPROTECT SILICON contains a maximum of 40 g/lit VOC.

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## EN 15824

### External render based on organic binder

DoP No.: THERMOPROTECT SILICON  
/ 9610-01

*Water vapor permeability: V2*

*Water absorption: W3*

*Adhesion: 1.2 MPa*

*Durability: NPD*

*Thermal conductivity:  $\lambda = 0.70$  W/ (m K)*

*Reaction to fire: Euro class B-s<sub>2</sub>, d<sub>0</sub>*

## TO XROMA

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