

# ISOMAT AK-THERMO ACRYL

## Highly flexible, organic, ready-to-use, fiber-reinforced coating for thermal insulation boards

### Description

ISOMAT AK-THERMO ACRYL is a highly flexible, fiber-reinforced, ready-to-use coating based on synthetic resins. It provides high initial and final bond strength, high elasticity and resistance to moisture. It accelerates and simplifies the application.

Certified according to EN 15824 and classified as a V2 W3 render. Also certified according to EN 12004 and classified as a D2E adhesive. CE marked.

### Fields of application

ISOMAT AK-THERMO ACRYL is used as a reinforcing coat for embedding fiberglass mesh on fixed thermal insulation boards, serving as the ideal substrate for the subsequent organic render coat.

Moreover, it is used for bonding thermal insulation boards made of extruded or expanded polystyrene, mineral wool etc., to building facades.

ISOMAT AK-THERMO ACRYL forms part of external thermal insulation systems when used in combination with the acrylic or silicone renders MARMOCRYL and MARMOCRYL-SILICONE.

### Technical data

Form:	pasty
Color:	white
Application temperature:	+5°C to +35°C
Open time:	at least 50 min
Minor adjustments time:	at least 30 min

#### EN 15824:

Water vapor permeability: V2  
(EN ISO 7783-2, V2: Medium  
 $0.14 \leq S_d < 1.4m$ )

Water permeability W3  
(EN 1062-3, W3: Low  $w < 0.1 \text{ kg/m}^2\text{h}^{0.5}$ )

Adhesion to (EN 1504):

- concrete:  $\geq 1.20 \text{ N/mm}^2$
- XPS:  $\geq 0.30 \text{ N/mm}^2$
- EPS:  $\geq 0.10 \text{ N/mm}^2$

Thermal conductivity:  $\lambda = 0.7 \text{ W/(m} \cdot \text{K)}$   
(EN 1745)

Reaction to fire: Euroclass C

#### EN 12004:

Initial adhesion strength:  $\geq 2.00 \text{ N/mm}^2$

Adhesion after:

- immersion in water:  $\geq 1.00 \text{ N/mm}^2$
- heat aging:  $\geq 1.50 \text{ N/mm}^2$

### Directions for use

#### As reinforcing coat:

##### 1. Substrate

The thermal insulation boards must be applied in a staggered pattern (like brickwork), without continuous vertical joints. Any voids between the boards must be filled with expanded polyurethane foam. The entire surface must be levelled.

##### 2. Application

Before application, ISOMAT AK-THERMO ACRYL must be stirred well with a low-revolution mixer. The material is applied with a smooth trowel at a maximum thickness of 2-3 mm. Then, a reinforcing fiberglass mesh is placed and firmly embedded into the fresh base coat layer with a smooth trowel. Finally, the surface is smoothed out and the excess adhesive is removed.

The fiberglass mesh strips should overlap each other by approx. 10 cm.

#### As adhesive:

##### 1. Substrate

The surface to be covered with boards should be free of dust, grease, loose particles, paints, etc. Very porous surfaces should be primed with the high-penetration, acrylic water-based primer FLEX-PRIMER.

##### 2. Application

ISOMAT AK-THERMO ACRYL is gradually added to water under continuous stirring until a homogeneous paste is formed. A low-speed mixer is recommended for mixing. The mixture should be left to rest for about 10 min and then stirred again.

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**Smooth substrate:** The adhesive is evenly spread over the entire surface using a notched trowel.

**Uneven substrate:** The adhesive is applied in stripes around the edges of the board and in two or more dabs in the center using a trowel. Next, thermal insulation boards are firmly pressed to the desired position.

## Consumption

As adhesive: 2.0-5.0 kg/m<sup>2</sup>, depending on trowel notch size and substrate type.  
As reinforcing coat: 3.0-4.0 kg/m<sup>2</sup>.

## Packaging

25 kg plastic containers.

## Shelf life – Storage

12 months from production date if stored in original, unopened packaging, in temperature ranging from +5°C to +35°C, protected from direct sunlight and frost.

## Remarks

- Temperature during application should be between +5°C to +35°C.
- The drying time of ISOMAT AK-THERMO ACRYL is affected by temperature and relevant humidity.
- In normal conditions, the successive layer can be applied after 24-48 hours.
- Low temperature and high relevant humidity extend the hardening time while high temperature and low relevant humidity reduce it.
- While still fresh, ISOMAT AK-THERMO ACRYL should be protected from high temperatures, rain, and frost.
- Please consult the directions for safe use and precautions written on the packaging before use.

## Volatile organic compounds (VOCs)

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/l (2010) for the ready-to-use product.

The ready-to-use product ISOMAT AK-THERMO ACRYL contains max. 40 g/l VOC.

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**EN 15824**

External render based on organic binder

**DoP No.: ISOMAT AK THERMO ACRYL/  
1420-02**

**Water vapour permeability:** V2

**Water absorption:** W3

**Adhesion:** 1.2 MPa

**Durability:** NPD

**Thermal conductivity:**  $\lambda = 0.7 \text{ W/(mK)}$

**Reaction to fire:** Euroclass C

**ISOMAT S.A.**

BUILDING CHEMICALS AND MORTARS

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