

# ISOMAT AK-THERMO

## Fiber-reinforced adhesive and base coat for thermal insulation boards

### Description

ISOMAT AK-THERMO is a high-performance, fiber-reinforced, cement-based adhesive and base coat, enriched with polymers (resins). It provides high initial and final adhesion strength, elasticity and resistance to moisture.

Certified according to EN 998-1 and classified as a GP CS IV W2 rendering mortar. Also certified according to EN 12004 and classified as a C2E adhesive. CE marked.

### Fields of application

ISOMAT AK-THERMO forms part of external thermal insulation systems when used in combination with MARMOCRET-PLUS and MARMOCRYL renders.

It is suitable for bonding thermal insulation boards of extruded or expanded polystyrene, mineral wool, polyurethane, cork, etc. to facades made of concrete, render, or masonry.

Moreover, ISOMAT AK-THERMO can be used as a base coat with reinforcing fiberglass mesh on facade insulation boards, serving as the ideal substrate for the subsequent coat of render.

### Technical data

Form:	cementitious mortar
Color:	white
Water demand:	6.25 l/25 kg bag
Bulk density of dry mortar:	1.40 ± 0.10 kg/l
Bulk density of fresh mortar:	1.55 ± 0.10 kg/l
Application temperature:	from +5°C to +35°C
Pot life:	at least 6 h
Open time:	at least 20 min
Compressive strength:	≥ 14.50 N/mm <sup>2</sup>
Flexural strength:	≥ 5,00 N/mm <sup>2</sup>
Adhesion to concrete: (28 days)	≥ 2.00 N/mm <sup>2</sup>
Adhesion to XPS: (28 days)	≥ 0.25 N/mm <sup>2</sup>
Adhesion to EPS: (28 days):	≥ 0.10 N/mm <sup>2</sup> (EPS failure)

Capillary water absorption: ≤ 0.2 kg/m<sup>2</sup>min<sup>0.5</sup>

Thermal conductivity ( $\lambda_{10, dry}$ ): 0.43 W/mK

Water vapour permeability coefficient ( $\mu$ ): 20

### Directions for use

#### 1. Substrate

The surface to be covered with boards should be free of dust, grease, loose particles, paints, etc. It is recommended that the substrate be dampened prior to application.

#### 2. Application

##### As adhesive:

ISOMAT AK-THERMO 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 approx. 10 min and then re-stirred.

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 notched trowel. Next, thermal insulation boards are firmly pressed to the desired position.

##### As reinforced mortar:

First, the material is applied with a smooth trowel at a maximum thickness of 3-4 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.

### Consumption

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

As reinforced mortar: approx. 1.5 kg/m<sup>2</sup>/mm.

### Packaging

25 kg paper bags.

# ISOMAT AK-THERMO

## Shelf life – Storage

12 months from production date if stored in original, unopened packaging, in places protected from moisture and frost.

## Remarks

- ISOMAT AK-THERMO contains cement and reacts as alkaline with moisture, so it is classified as irritant.
- Very porous surfaces such as aerated concrete, gypsum boards, chipboards, etc. must be primed first with the acrylic primer UNI-PRIMER.
- Please consult the directions for safe use and precautions written on the packaging before use.



### ISOMAT S.A.

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### EN 12004:2007+A1:2012

DoP No.: ISOMAT AK-THERMO/1067-02  
NB: 2032

Improved cementitious adhesive with extended open time, for internal and external tiling.

### Bond strength, as:

- initial tensile adhesion strength	≥ 1 N/mm <sup>2</sup>
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### EN 998-1

**General purpose rendering mortar (GP)  
for external use**

**DoP. No.: ISOMAT AK-THERMO/1240-04**

**Reaction to fire:** Class A1

**Adhesion:** 2,0 N/mm<sup>2</sup> – **FP:** A

**Water absorption:** W2

**Water vapour diffusion coeff.:** μ 20

**Thermal conductivity:** (λ<sub>10, dry</sub>) 0,43 W/mK

**Durability** (against freeze/thaw): evaluation based on provisions valid in the intended place of use of the mortar

### ISOMAT S.A.

BUILDING CHEMICALS AND MORTARS

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