

## Fiber-reinforced adhesive for thermal insulation boards

### Description

ISOMAT AK-T35 is a fiber-reinforced, cement-based adhesive, enriched with polymers (resins). It provides high initial and final adhesive strength, elasticity and resistance to moisture. It is qualified as a non-slip adhesive with increased open time.

### Fields of application

ISOMAT AK-T35 is used in combination with the plasters MARMOCRET PLUS and MARMOCRYL, as a system for the external thermal insulation of buildings.

It is suitable for fixing thermal insulation polystyrene boards on the facades of buildings. Moreover, when reinforced with fiberglass mesh, it may be used on fixed thermal insulation boards and constitutes the ideal substrate for the subsequent plaster.

### Technical data

Form:	cementitious mortar
Color:	white, grey
Water demand:	6.00 l/25 kg bag
Bulk density of dry mortar:	1.50 ± 0.10 kg/l
Bulk density of fresh mortar:	1.65 ± 0.10 kg/l
Application temperature:	from +5°C to +35°C
Pot life:	at least 6 h

#### ISOMAT AK-T35 (white)

Adhesive strength to concrete:	≥ 1.00 N/mm <sup>2</sup>
Adhesive strength to expanded polystyrene:	≥ 0.08 N/mm <sup>2</sup>
Compressive strength:	≥ 10.00 N/mm <sup>2</sup>
Flexural strength:	≥ 3.50 N/mm <sup>2</sup>
Capillary water absorption:	≤ 0.2 kg/m <sup>2</sup> min <sup>0.5</sup>

Thermal conductivity ( $\lambda_{10,dry}$ ): 0.45 W/mK

Water vapor permeability coefficient ( $\mu$ ): 15

#### ISOMAT AK-T35 (grey)

Adhesive strength to concrete: ≥ 1.00 N/mm<sup>2</sup>

Adhesive strength to expanded polystyrene: ≥ 0.08 N/mm<sup>2</sup>

Compressive strength: ≥ 10.00 N/mm<sup>2</sup>

Flexural strength: ≥ 3.50 N/mm<sup>2</sup>

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

Thermal conductivity ( $\lambda_{10,dry}$ ): 0.45 W/mK

Water vapor permeability coefficient ( $\mu$ ): 15

### Directions for use

#### 1. Substrate preparation

The surface to be covered with boards should be free of dust, grease, loose particles, paints etc. It is recommended to dampen it, before application.

#### 2. Application

##### As an adhesive:

ISOMAT AK-T35 is gradually added into water under continuous stirring, until a homogeneous paste is formed. A low-speed mixer is recommended for mixing. The mixture should be left to settle for about 10 minutes before it is slightly stirred again.

On smooth substrates, the adhesive is spread on the thermal insulation board and combed with a notched trowel in order to be uniformly applied on the whole surface.

# ISOMAT AK-T35



On uneven substrates, the adhesive is applied with a trowel to the perimeter of the thermal insulation board and in selected spots in the center.

Then, the thermal insulation boards are pressure-fixed at the desired position.

## **As a reinforced mortar:**

Initially, the material is applied with a notched trowel in a maximum thickness of 3 mm. The fiberglass mesh is placed on the – still - fresh layer and pressed with a smooth trowel to get fully embedded in the adhesive. Finally, the surface is smoothed out and the excess adhesive is removed.

## **Consumption**

As an adhesive: 3.0-4.0 kg/m<sup>2</sup>, depending on the trowel's notch size and the nature of the substrate.

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

## **Packaging**

ISOMAT AK-T35 is supplied in 25 kg paper bags.

## **Storage**

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

## **Remarks**

- ISOMAT AK-T35 contains cement that reacts with moisture forming alkaline solutions, thus is classified as irritant.
- Very porous surfaces such as aerated concrete, gypsum boards, chipboards etc. must be previously primed with UNI-PRIMER acrylic primer.
- Consult the directions for safe use and precautions written on the package.



# ISOMAT AK-T35



<b>ISOMAT S.A.</b> 17 <sup>th</sup> km Thessaloniki – Ag. Athanasios P.O. BOX 1043, 570 03 Ag. Athanasios, Greece  <b>13</b>
<b>EN 998-1</b> <b>General purpose rendering mortar (GP)</b> <b>for external use</b> <b>DoP No.: ISOMAT AK-T35 GREY/ 1243-04</b>  <b>Reaction to fire:</b> Class A1 <b>Adhesion:</b> 1.0 N/mm <sup>2</sup> – FP: A <b>Water absorption:</b> W2 <b>Water vapor diffusion coeff.:</b> $\mu$ 15 <b>Thermal conductivity:</b> ( $\lambda_{10,dry}$ ) 0.45 W/mK <b>Durability</b> (against freeze/thaw): evaluation based on provisions valid in the intended place of use of the mortar

<b>ISOMAT S.A.</b> 17 <sup>th</sup> km Thessaloniki – Ag. Athanasios P.O. BOX 1043, 570 03 Ag. Athanasios, Greece  <b>13</b>
<b>EN 998-1</b> <b>General purpose rendering mortar (GP)</b> <b>for external use</b> <b>DoP No.: ISOMAT AK-T35 WHITE/ 1244-03</b>  <b>Reaction to fire:</b> Class A1 <b>Adhesion:</b> 1.0 N/mm <sup>2</sup> – FP: A <b>Water absorption:</b> W2 <b>Water vapor diffusion coeff.:</b> $\mu$ 15 <b>Thermal conductivity:</b> ( $\lambda_{10,dry}$ ) 0.45 W/mK <b>Durability</b> (against freeze/thaw): evaluation based on provisions valid in the intended place of use of the mortar

**ISOMAT S.A.**  
BUILDING CHEMICALS AND MORTARS  
**MAIN OFFICES - FACTORY:**  
17th km Thessaloniki - Ag. Athanasios Road,  
P.O. BOX 1043, 570 03 Ag. Athanasios, Greece,  
Tel.: +30 2310 576 000, Fax: +30 2310 722 475  
**www.isomat.eu e-mail: info@isomat.eu**

The technical information and instructions supplied in this datasheet are based on the knowledge and experience of the Department of Research and Development of our company and on results from long-term applications of the product in practice. The recommendations and suggestions referring to the use of the product are provided without guarantee, since site conditions during the applications are beyond the control of our company. Therefore the user is responsible for confirming that the chosen product is suitable for the envisaged application. The present edition of this technical datasheet automatically cancels any previous one concerning the same product.

