

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 ²
Adhesive strength to expanded polystyrene:	≥ 0.08 N/mm ²
Compressive strength:	≥ 10.00 N/mm ²
Flexural strength:	≥ 3.50 N/mm ²
Capillary water absorption:	≤ 0.2 kg/m ² min ^{0.5}

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

Water vapor permeability coefficient (μ): 15

ISOMAT AK-T35 (grey)

Adhesive strength to concrete: ≥ 1.00 N/mm²

Adhesive strength to expanded polystyrene: ≥ 0.08 N/mm²

Compressive strength: ≥ 10.00 N/mm²

Flexural strength: ≥ 3.50 N/mm²

Capillary water absorption: ≤ 0.2 kg/m² min^{0.5}

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

Water vapor permeability coefficient (μ): 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.

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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/m², depending on the trowel's notch size and the nature of the substrate.

As a reinforced mortar: approx. 1.5 kg/m²/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



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

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EN 998-1 General purpose rendering mortar (GP) for external use DoP No.: ISOMAT AK-T35 WHITE/ 1244-03 Reaction to fire: Class A1 Adhesion: 1.0 N/mm ² – FP: A Water absorption: W2 Water vapor diffusion coeff.: μ 15 Thermal conductivity: ($\lambda_{10,dry}$) 0.45 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
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.



Fibre-reinforced adhesive for thermo-insulation boards

Description

ISOMAT AK-T55 is a fibre-reinforced cement-based adhesive, enriched with polymers (resins). It provides high initial and final adhesive strength, elasticity and resistance to moisture.

It is classified as a GP CS IV W2 rendering mortar according to EN 998-1 and as a C2 adhesive according to EN 12004.

Fields of application

ISOMAT AK-T55 is used in combination with MARMOCRET PLUS and MARMOCRYL renders as a system for creating external thermo-insulated facades.

It is suitable for fixing thermo-insulation boards of extruded or expanded polystyrene, mineral wool, polyurethane, cork, etc. on facades made of concrete, render, or masonry.

Moreover, when reinforced with fibreglass mesh and applied on the exterior side of fixed thermo-insulation boards, it constitutes the ideal substrate for the subsequent render layer.

Technical data

Form:	cementitious mortar
Color:	white
Water demand:	5,50 l/25 kg bag
Bulk density of dry mortar:	1,50 ± 0,10 kg/l
Bulk density of fresh mortar:	1,60 ± 0,10 kg/l
Application temperature:	from +5 ⁰ C to +35 ⁰ C
Pot life:	at least 4 h
Compressive strength:	12,00 ± 1,00 N/mm ²
Flexural strength:	5,50 ± 0,50 N/mm ²

Adhesion on concrete (28 days):	≥ 1,30 N/mm ²
Adhesion on XPS (28 days):	≥ 0,15 N/mm ²
Adhesion on EPS (28 days):	≥ 0,10 N/mm ² (EPS failure)
Capillary water absorption:	≤ 0,2 kg/m ² min ^{0,5}
Thermal conductivity (λ _{10,dry}):	0,45 W/mK
Water vapour permeability coefficient (μ):	5/20

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 it is dampened before application.

2. Application

As adhesive:

ISOMAT AK-T55 is gradually added into water under continuous stirring until a homogeneous paste is formed. A low revolution mixer is recommended for mixing. The mixture should be left for about 10 minutes to rest and then should be re-stirred a bit.

On smooth substrates the adhesive is spread on the surface and combed using a notched trowel in order to be uniformly applied on the whole of the surface.

On uneven substrates the adhesive is applied with a trowel around the perimeter of the thermo-insulation board and in selected spots in the center.

Next, the thermo-insulation boards are fixed by pressing them on the desired position.

ISOMAT AK-T55



As reinforced mortar:

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

Consumption

As adhesive: 3,0-4,0 kg/m², depending on the trowel's notch size and the nature of the substrate.

As reinforced mortar: approx. 1,5 kg/m²/mm.

Packaging

ISOMAT AK-T55 is supplied in paper bags of 25 kg.

Shelf-life - Storage

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

Remarks

- ISOMAT AK-T55 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.
- Consult usage risks and safety advice written on the bag.



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17th km Thessaloniki – Ag. Athanasios
P.O. BOX 1043, 570 03 Ag Athanasios, Greece

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EN 998-1

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

Reaction to fire: Class A1

Adhesion: 1,3 N/mm² – **FP:** A

Water absorption: W2

Water vapour diffusion coeff.: μ 5/20


Thermal conductivity: ($\lambda_{10, dry}$) 0,45 W/mK

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



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EN 12004 Improved, cementitious adhesive for tiling

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BUILDING CHEMICALS AND MORTARS
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