Technical leaflet

ISOMAT AK-THERMO ACRYL

Acrylic reinforcing pasty coating for thermo-insulation boards

Description

ISOMAT AK-THERMO ACRYL is a ready to use, pasty, fiber-reinforced coating, based on acrylic resins. It provides high initial and final bond strength, high elasticity and resistance to moisture. It accelerates and simplifies the application.
Certified with the CE marking according to EN 15824 as a V2, W3 render and according to EN 12004 as a D2E adhesive.

Fields of application

ISOMAT AK-THERMO ACRYL is used as a reinforcing coating for embedding fiberglass mesh on fixed thermo-insulation boards, constituting the ideal substrate for the subsequent organic plaster layer.
Moreover, it is used for fixing any kind of thermo-insulation materials, such as extruded or expanded polystyrene boards, stone wool etc., on the exterior surface of buildings, in combination with the acrylic or silicone acrylic plasters MARMOCRYL and MARMOCRYL-SILICONE. It is also ideal for the external thermal insulation of buildings.

Technical data

Form:	pasty
Color:	white
Application temperature:	from +5^{0}C to +35^{0}C
Open time:	at least 50 min
Minor adjustments time:	at least 30 min

EN 15824:

Water vapour permeability:	V2
(EN ISO 7783-2, V2: Medium 0,14 ≤Sd<1,4m)	
Water permeability (EN 1062-3, W3: Low w< 0,1 kg/m^{2}h^{0,5})	W3
Adhesion (EN 1542):	
• On concrete:	≥ 1,20 N/mm^2
• On XPS:	≥ 0,21 N/mm^2
• On EPS:	≥ 0,15 N/mm^2
Thermal conductivity (EN 1745)	λ=0,7 W/(m · K)
Reaction to fire	Euroclass C

EN 12004:

Initial adhesion strength:	≥ 2,00 N/mm^2
Adhesion after:	
• immersion in water:	≥ 1,00 N/mm^2
• heat ageing:	≥ 1,50 N/mm^2

Directions for use

As reinforcing coat

1. Substrate
The thermo insulation boards must be applied staggered (like brick work) without continuous vertical joints. Any voids between the boards must be filled with expanded polyurethane foam. The whole surface must be levelled.

2. Application
Before the application, ISOMAT AK-THERMO ACRYL must be stirred well with a low revolution mixer. Subsequently the material is applied with a notched trowel in a thickness of 2-3 mm. On the still fresh layer the fiberglass mesh is placed and pressed with a smooth trowel to get fully embedded in the adhesive. Finally, the surface is smoothed out and the excess material is removed. The fibreglass mesh strips should be overlapped approximately 10cm at the edges.

ISOMAT AK-THERMO ACRYL

As adhesive for thermo-insulation boards:

1. Substrate
The surface to be covered with boards should be free of dust, grease, loose particles, paints etc. For very absorptive substrates the use of an acrylic based primer FLEX-PRIMER is recommended.

2. Application
On smooth substrates ISOMAT AK-THERMO ACRYL is spread on the thermo-insulation board 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 centre.Next, the thermo-insulation boards are fixed by pressing them on the desired position.

Consumption

As reinforced coating: approx. 3,0-4,0 kg/m^2

As adhesive: 2,0-5,0 kg/m², depending on the trowel's notch size and the nature of the substrate.

Packaging

ISOMAT AK-THERMO ACRYL is supplied in plastic containers of 25 kg.

Shelf-life - Storage

12 months from production date if stored in original, unopened packaging, in temperature between +5^{O}C and +35^{O}C. Protect from direct sun exposure and frost.

Remarks

- Temperature during application should be between +5^{0}C to +35^{0}C.
- The drying time of ISOMAT AK-THERMO ACRYL is affected from temperature and moisture.
- In normal condition the successive layer can be applied after 24-48 hours.
- At low temperature and in high moisture the hardening time is extended. While it is reduced at high temperature and in low moisture.
- ISOMAT AK-THERMO ACRYL while it is still fresh should be protected from high temperatures, rain and frost.
- Consult the usage risks and safety advice written on the plastic container.

Volatile organic compounds (VOCs)

According to the Directive 2004/42/CE (Annex II, table A), the maximum allowed VOC content for the product subcategory c, type WB is 40g/l (2010) for the ready to use product.
The ready to use product ISOMAT AK-THERMO ACRYL ACRYL contains max <40 g/l VOC.

ISOMAT AK-THERMO ACRYL

CE

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EN 15824

External render based on organic binder

Water vapour permeability: V2

Water absorption: W3

Adhesion: 1,2 MPa

Durability: NPD

Thermal conductivity: λ = 0,7 W/(mK)

Reaction to fire: Euroclass C

CE

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EN 12004

Improved, dispersion adhesive for tiling with extended open time

- Reaction to fire	Class F
- Initial shear adhesion strength	≥ 1 N/mm^2
- Shear adhesion strength after heat ageing	≥ 1 N/mm^2
Shear adhesion strength at elevated temperature	≥ 1 N/mm^2
- Tensile adhesion strength after water immersion	≥ 0,5 N/mm^2

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