

THERMOMAX® PLAST 65

Fibre-Reinforced Render for Thermal Insulation Boards

Product Description

THERMOMAX® PLAST 65 is a cement-based, polymer-modified, micro-fibre-reinforced render. In external thermal insulation composite systems (ETICS) it is applied over expanded polystyrene (EPS), extruded polystyrene (XPS) and mineral wool boards with the reinforcing mesh embedded in it. It gives the system its impact resistance, distributes surface stresses and forms the substrate for the decorative finish.

It is a component of external thermal insulation composite systems (ETICS). System performance is assessed under EAD 040083-00-0404 (ETAG 004). Product performance has been determined in accordance with test methods EN 13494, EN 13497, EN 1062-3 and EN 1015-19.

Fields of Application

- As the render layer in external thermal insulation composite systems (ETICS)
- For embedding the reinforcing mesh
- As the substrate layer before the decorative finish
- In internal wall insulation systems

Advantages

- Provides high bond strength to EPS, XPS and mineral wool boards
- The micro-fibres reduce the risk of cracking caused by temperature change and vibration
- Elastic thanks to its polymer content; distributes surface stresses
- Highly permeable to water vapour; does not prevent the wall from breathing
- Water-repellent; limits the ingress of rainwater into the system
- Suitable for interior and exterior use
- Easy to prepare and apply; does not slip
- Resistant to freeze-thaw cycles

Technical Properties

General Information	
Material composition	Cement, mineral fillers, micro-fibres and polymer additives
Appearance	Grey powder
Maximum aggregate size	Max. 0.8 mm
Density of the mix	~ 1.75 kg/dm ³
Performance Data	
Bond strength to board – EPS (EN 13494)	≥ 0.08 N/mm ² (failure within the insulation board)
Bond strength to board – mineral wool (EN 13494)	≥ 0.015 N/mm ² (failure within the insulation board)
Impact resistance (EN 13497)	≥ 3 joules (system value)
Capillary water absorption (EN 1062-3)	≤ 0.5 kg/m ² ·h ^{0.5}

Water vapour diffusion resistance factor (EN 1015-19)	$\mu \leq 25$
Application Data	
Mixing ratio	5.50 – 6.00 litres of water / 25 kg powder (~ 0.22 – 0.24 litres of water / 1 kg powder)
Pot life	~ 2 hours
Open time	≥ 15 minutes
Application thickness	4 – 5 mm (including the mesh)
Reinforcing mesh	160 g/m ² , alkali-resistant
Waiting time before the finish coat	Minimum 7 days
Application and substrate temperature	+5°C / +30°C
Service temperature	-20°C / +80°C
Consumption	5.5 – 6.5 kg/m ² (at 4 – 5 mm thickness)
Safety Information	
Reaction to fire class (EN 13501-1)	A2-s1,d0
Hazardous substances	Refer to SDS

The technical values stated were obtained at an ambient temperature of +23°C and 50% relative humidity. Higher temperatures shorten the stated times, lower temperatures extend them.

Application Instructions

Surface Preparation

At least 3 days must have passed since the boards were bonded and at least 24 hours since anchoring before the render is applied. The board surface must be sound, dry, clean and free of dust. Level differences between boards must be corrected with a rasp, and joint gaps wider than 2 mm must be closed with pieces cut from the same board. Board surfaces yellowed by sunlight must be sanded and dusted off. Mesh corner beads must be fitted at building corners and at the edges of window and door openings, and expansion or decorative groove profiles where grooves are to be formed.

Preparation of the Mix

Pour the amount of water given in the technical table into a clean container. Add THERMOMAX® PLAST 65 slowly to the water and mix with a mixer at 400 – 600 rpm until free of lumps. Let the mix rest for 3 – 5 minutes, then mix again for 1 minute before use. Once the pot life has elapsed or the mix has begun to set, it must not be reused by adding water.

Application

The render is applied in two passes. In the first pass the mix is drawn onto the board surface to a thickness of approximately 3 mm with a 6 × 6 mm notched trowel. The alkali-resistant 160 g/m² reinforcing mesh is rolled out from the top downwards into the still-fresh coat and embedded with the trowel so that it lies close to the outer surface. Mesh strips must overlap by at least 10 cm and must wrap at least 10 cm around building corners. Additional mesh pieces of 20 × 30 cm must be placed diagonally (45°) at the corners of window and door openings. The mesh must remain fully within the coat and must not be visible at the surface. Once the first pass has set, the second pass is applied to bring the total thickness to 4 – 5 mm, and the surface is levelled with a straightedge. If the ambient or surface temperature exceeds +25°C, the surface must be dampened at intervals with water at low pressure to prevent cracks caused by rapid water loss. Wait at least 7 days before applying the primer and the decorative finish. Do not apply where there is a risk of frost within 24 hours, in direct sunlight, in strong wind or in rain.

Cleaning of Tools

Tools and equipment must be cleaned with water immediately after use. Once hardened, the product can only be removed mechanically.

Storage Conditions and Shelf Life

Store in the original, unopened packaging on a wooden pallet, in a dry, cool place protected from frost. When stored correctly, the shelf life is 12 months from the date of production.

Safety Precautions

Suitable work clothing, protective gloves, goggles and a mask must be worn during application. The uncured material is irritant; avoid contact with skin and eyes, wash immediately with plenty of water and soap in case of contact, and seek medical attention immediately if swallowed. Food products must not be left in areas where the material is being applied. Store out of reach of children. For further information, refer to the Safety Data Sheet.

Liability

Our company is responsible only for the quality of the product. Any use of the product outside the scope of the written technical recommendations, including incorrect application or use under unsuitable conditions, is entirely the responsibility of the user. For further technical information, please refer to the product catalogue or contact our representatives.

Packaging

25 kg kraft bag

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