

THERMOMAX® DBL 60P

Plastic Nail Anchor for Thermal Insulation Boards

Product Description

THERMOMAX® DBL 60P is a plastic nail anchor with a wide plate, used for the mechanical fixing of thermal insulation boards. Its 60 mm plate distributes the load over a large area of the board surface and secures the system against wind suction loads.

It is a component of external thermal insulation composite systems (ETICS).

Fields of Application

- Mechanical fixing of insulation boards in external thermal insulation composite systems (ETICS)
- Fixing of EPS and XPS boards
- On concrete, solid brick, aerated concrete and lightweight concrete substrates

Advantages

- The plastic nail gives a much lower point thermal transmittance than a metal nail; no cold spots or marks appear on the façade
- Being fully plastic, it does not corrode; no rust stains appear on the façade
- The wide 60 mm plate spreads the load over a large area of the board and prevents it from sinking into the board
- Suitable for concrete, brick, aerated concrete and lightweight concrete substrates
- Resistant to corrosion and mechanical stress

Technical Properties

General Information	
Product type	Wide-plate plastic nail anchor
Sleeve material	Polypropylene (PP)
Nail material	Glass-fibre-reinforced polypropylene
Plate diameter	60 mm
Sleeve diameter	10 mm
Performance Data	
Use categories (EAD 330196)	A – Concrete B – Solid brick / solid masonry D – Lightweight concrete E – Aerated concrete
Point thermal transmittance (χ)	≤ 0.002 W/K
Service temperature	-40°C / +80°C
Corrosion resistance	Fully plastic; does not rust
Application Data	
Drill diameter	10 mm

Min. hole depth	Anchor length + 10 mm
Anchorage depth (embedment in substrate)	Min. 50 mm (in solid substrates)
Drilling method	Hammer drilling in concrete and solid brick Rotary only in aerated and lightweight concrete
Number of anchors	Field of façade: min. 6 pcs/m ² Edge zones: min. 8 pcs/m ² (according to wind load calculation)
Waiting time after bonding	Minimum 24 hours
Application temperature	Above 0°C
Safety and Certification	
Reaction to fire class (EN 13501-1)	Class E

The technical values stated were obtained at an ambient temperature of +23°C and 50% relative humidity.

Product Types and Anchor Length Selection

The anchor length is selected according to the sum of the insulation board thickness, the adhesive thickness and the required anchorage depth. The board thicknesses in the table below are calculated on the basis of approximately 10 mm adhesive and 50 mm anchorage depth. Where the anchors are installed through existing render, a longer anchor must be chosen by the thickness of the render.

Product name	Anchor length	Min. hole depth	Suitable board thickness
THERMOMAX DBL 60P-100	100 mm	110 mm	30 – 40 mm
THERMOMAX DBL 60P-120	120 mm	130 mm	50 – 60 mm
THERMOMAX DBL 60P-140	140 mm	150 mm	70 – 80 mm
THERMOMAX DBL 60P-180	180 mm	190 mm	110 – 120 mm

- The hole must be at least 10 mm deeper than the anchor length; if drilling dust remains in the hole, the anchor will not seat fully.
- For mineral wool boards, an anchor with a larger plate or an additional plate must be used.

Application Instructions

Before Application

Mechanical fixing must be carried out at least 24 hours after the boards are bonded; if anchoring is done before the adhesive has set sufficiently, the boards will shift. The insulation boards must be fully seated on the substrate with no gaps between them. The number and layout of anchors must be determined before application according to the building height and the wind load calculation.

Drilling

The hole is drilled perpendicular to the board surface with a bit suited to the anchor diameter. Drill with hammer action in concrete, solid brick and similar solid substrates, and in rotary mode only (no hammer) in aerated concrete and lightweight concrete; hammer drilling enlarges the hole in these materials and weakens the hold. The hole must be at least 10 mm deeper than the anchor length. Remove the dust from the hole after drilling.

Installing the Anchor

Push the anchor into the hole until the plate sits on the board surface, then drive the nail in with a hammer. The plate must be flush with the board surface; an over-driven anchor crushes the board and shows as a dimple in the decorative finish. Anchors that do not seat fully or that spin must be removed and replaced with a new one nearby. Do not install below 0°C, as the plastic sleeve may crack at low temperatures.

Number and Layout of Anchors

The number of anchors is determined according to the building height, the location of the building and the wind load calculation (EN 1991-1-4). A minimum of 6 pcs/m² is recommended in the field of the façade and a minimum of 8 pcs/m² in the edge zones near building corners; on tall buildings and exposed façades this number is increased by calculation. The anchors are placed at the board-joint intersections and in the middle of the boards, in a T or W pattern. The anchor axis must be at least 50 mm from the board edge and at least 100 mm from the building corner.

Storage Conditions and Shelf Life

Store in the original packaging in a dry, cool place protected from direct sunlight. Plastic becomes brittle in anchors left in the sun for long periods. When stored correctly, the shelf life is unlimited; products from opened packaging that have been exposed to sunlight must be checked before use.

Safety Precautions

Protective goggles, gloves and a dust mask must be worn during application; do not inhale the mineral dust produced when drilling. Follow the rules for working at height. Do not use broken or deformed anchors. Store out of reach of children.

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

Cardboard box; the quantity per box varies with anchor length.

KARTAŞ KİMYA LLC

Sumgayit Industrial Park
Kimyachilar Street 1, AZ 5002
Sumgayit, Azerbaijan

www.mrfix.az

Tel: +994 12 310 88 55, +994 10 347 00 10