

# Capatect Klebe- und Armierungsmasse 186 M

Mineral dry mortar premix for bonding and reinforcing thermal insulation boards. Optimised for machine application.



## Product Description

Field of Application	Bonding of insulation boards and embedding reinforcement mesh, particularly for machine application. Suitable for use within Capatect ETICS.	
Material Properties	<ul style="list-style-type: none"> <li>■ Reaction to fire: A2-s1,d0, Non-combustible</li> <li>■ Normal plaster mortar as per DIN EN 998-1</li> <li>■ Weather-proof, water-repellent to DIN 18 550</li> <li>■ High water vapour diffusion</li> <li>■ Long open time for application</li> <li>■ High fresh mortar stability</li> <li>■ Ecologically compatible</li> <li>■ Optimised granulometric formular</li> <li>■ Mineral binder, cement-based with adhesion promoter</li> <li>■ Balanced copound of quartz and calcite fillers</li> <li>■ Additives for smooth processing</li> </ul>	
Packaging/Package Size	25 kg bag, 800 kg one-way container, One-way containers can optionally be delivered with covers for additional weather protection (material number 807534)	
Colours	Light grey	
Storage	Dry, cool, frost-free and protected from direct sunlight. Low chromate content: 12 months. Shelf life: Approx. 1 year in tightly closed, original packaging.	
Technical Data	<ul style="list-style-type: none"> <li>■ Heat conductivity: 0.7 W/(m · K)</li> <li>■ Bulk density: ca. 1.5 kg/dm<sup>3</sup></li> <li>■ Resistance-count for diffusion <math>\mu</math> (H<sub>2</sub>O): <math>\mu &lt; 25</math></li> <li>■ Diffusion-equivalent air layer thickness <math>s_d</math> H<sub>2</sub>O: <math>s_d &lt; 0,1</math> m for a 3 mm thick layer as per DIN EN ISO 7783</li> <li>■ Compression strength: Class CS IV as per DIN EN 998-1</li> <li>■ Adesive tensile strength: <math>\geq 0,08</math> N/mm<sup>2</sup> as per DIN EN 998-1</li> <li>■ Fire behaviour: A2-s1,d0 as per DIN EN 13501-1 German classification for ETICS : "nichtbrennbar" (non-combustible) or "schwerentflammbar" (flame retardant) according to the other Capatect ETICS components.</li> <li>■ Coefficient of water absorption: <math>w &lt; 0.2</math> kg/(m<sup>2</sup> · h<sup>0,5</sup>) as per DIN EN 1062</li> <li>■ Capillary water absorption: Class W<sub>2</sub> as per DIN EN 998-1</li> </ul>	
Product No.	186M	



## Application

Substrate Preparation	<p>Masonry, concrete or sound existing coatings must be clean, dry, adherent, sound/solid/stable, and free from all substances, that may prevent good adhesion, e.g. formwork oil. Remove mortar burrs and all unsound, flaking/peeling off existing paints and textured renders/ plasters. Chip off all render/plaster areas showing cavities (local separation) and repair to match the surrounding surface. Clean highly absorbent, sanding or chalking surfaces thoroughly up to the solid substrate level and prime with Syllitol-Konzentrat 111.</p>
Consumption	<p><b>Bonding of Thermal-Insulating Boards</b></p> <p>Bead-point method: approx. 4.0 – 4.5 kg/m<sup>2</sup>          Full-surface bonding: approx. 5.0 – 7.0 kg/m<sup>2</sup>          Partial surface bonding (only with LS-Fassadendämmplatte VB 101): approx. 5.0 – 5.5 kg/m<sup>2</sup></p> <p><b>Reinforcing layer:</b>          1.5 kg/m<sup>2</sup> per mm of layer thickness          For EPS boards: approx. 4.5 kg/m<sup>2</sup> and for mineral wool boards: approx. 5.0 kg/m<sup>2</sup></p> <p>These are indicative values. Building-dependent or processing-related deviations must be considered.</p>
Application Conditions	<p><b>Processing temperature :</b> +5 °C to +30 °C during application and curing for material, substrate and ambient air. Do not apply under direct sunlight or during strong wind, fog or high relative humidity.</p>
Drying/Drying Time	<p>The adhesive mortar Capatect Klebe- und Armierungsmasse 186M dries due to hydration and physically, i.e. by evaporation of batching water. Particularly during cooler period and at higher relative humidity the drying time is extended.</p> <p>When wall anchors must be applied, they can only be fastened after a sufficiently long hardening time of the adhesive bedding, i.e. approx. 1 day. The adhesive is completely dry and ready for stress after 2 to 3 days. At 20 °C and 65% relative humidity the reinforcing layer is surface-dry after 24 hours.</p>
Tool Cleaning	<p>Clean tools/equipment with water, immediately after use.</p>
Material Preparation	<p>The Capatect Klebe- und Armierungsmasse 186M can be used with all types of flow mixers or screw pumps and suitable machine equipment for render/plaster application. If manually applied it is gradually mixed into tap (potable), cold water and agitated with a suitable low-speed electric paddle until the mixture is free of lumps. Leave to stand and swell for approx. 5 minutes and stir up again. Adjust to working consistency by adding a small amount of tap (potable) water, if necessary.</p> <p>Workability/pot life depends on weather conditions: In case of manual material preparation approx. 2 to 2.5 hours; in case of mechanical conveyance max. 60 minutes. Never mix slightly hardened or stiff material with water - such material is unusable.</p>
Example for Machine Equipment	<p>Flow mixer Berö Calypso 15 with standard portioning or mixing spindles and feed pump Berö Speedy 15 with screw (spiral) conveyor 1/1 output.</p>
	<p><b>Important Data</b></p> <p><b>Please follow the guidelines of the manufacturer strictly.</b></p> <p><b>Electricity supply:</b>          400 V rotary current each / 16 A (power distributor with FI-protection switch)</p> <p><b>Water supply:</b>          ¾" hose with GEKA, minimum 2.5 bar water pressure is required for the running machine</p> <p><b>Water flow rate:</b>          The desired consistency can be set by the fine-regulating valve in the water-fitting of the mixer.</p> <p><b>Conveying hoses:</b>          Primary hoses: interior Ø 35 mm, 13.3 m each          End hose, interior Ø 25 mm, 10.0 m</p> <p><b>Max. delivery range:</b>          Approx. 50 m (should be optimised depending on the conditions on site and temperature).</p> <p><b>Spraying unit:</b>          Nozzle Ø 10 mm or 12 mm</p>
Reinforcement Layer	<p>(manual or machine application)</p> <p>Abrade all surface irregularities of EPS butt joints, to achieve a smooth surface. Remove all adherent dust. Secure corners/edges and reveals with corner protection profiles and the edges of openings in the facade with diagonal reinforcing fabric. Apply the adhesive mortar onto the insulation boards in the width of reinforcing fabric sheet. Then press Capatect-Gewebe 650 thoroughly, sheet by sheet, into the freshly applied, still wet bonding and reinforcing layer, with an overlap of approx. 10 cm. A subsequent layer of Capatect 186 M must be applied without delay, wet-on-wet, to guarantee complete embedding of all fabric sheets and a total reinforcing layer thickness of approx. 3 – 4 mm.</p> <p><b>Corners of the building:</b>          If Capatect-Gewebe-Eckschutz is used, the fabric has to be applied only up to the edge.</p>

## Bonding of Insulation Boards

If Capatect-Eckschutzschiene (without Reinforcing Fabric Strip) is used, the fabric should overlap the edge area for 10 cm.

### **Bead-Point-Method:**

Apply a bead, approx. 5 cm wide, surrounding the board edge and 3 to 6 mortar lumps (hand palm size) in the middle of the board ( $\geq 40\%$  of the surface should have contact with adhesive material). Avoid mortar inside board joints!

### **Full surface bonding of pre-primed Capatect LS-Fasadendämmplatte VB 101:**

Spray the adhesive material by machine up to approx. 10 mm thick onto the substrate. Immediately before applying insulation boards the adhesive must be treated with a square-notched trowel (length and width of notching as required for the substrate). Then the insulation boards must be pressed without delay into the freshly applied adhesive mortar bed, floated to their end position and finally pressed to ensure proper bonding. Apply adhesive material only onto the surface that can be directly covered with insulation boards, avoiding skin formation. Avoid mortar inside board joints!

### **Partial surface bonding of pre-primed Capatect LS-Fasadendämmplatte VB 101:**

The adhesive mortar is sprayed on the substrate by suitable machine equipment as vertical beads ( $\geq 50\%$  of surface must have contact with adhesive material), approx. 5 cm wide and min. 10 mm thick in their middle, with a max. centre distance of 10 cm. Then press the insulation boards without delay into the freshly applied adhesive mortar bed, float to their end position and finally press on to ensure proper bonding. Apply adhesive material only onto the surface area that can be directly covered with insulation boards, avoiding skin formation. Irregularities up to  $\pm 1$  cm can be equalised with the adhesive mortar bed. Place the insulation boards thoroughly from bottom to top, touching each other (pressing together and press on), avoiding the penetration of adhesive material into butt joints. Apply the rows of insulation boards with an offset of 50%. Follow the alignment and vertical lines for installation.

## Advice

Tarpaulins should be used to protect the surface from rain during the drying phase, if necessary. Follow DIN 18 550 and DIN 18 350, VOB, part C or equivalent national regulations. Observe the instructions given for container goods.

Causes skin irritation. Causes serious eye damage. May cause respiratory irritation. Keep out of reach of children. Do not breathe dust or mist. Wear protective gloves/ protective clothing/ eye protection/ face protection. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice/attention. Use P2 dust filter for grinding. Aqueous cement suspensions have an alkaline effect.

## Disposal

Materials and all related packaging must be disposed of in a safe way in accordance with the full requirements of the local authorities. Particular attention should be made to removing wastage from site in compliance with standard construction site procedures.

In Germany / EC:

Only completely emptied bags should be given for recycling. Hardened material residues should be disposed of as mixed construction and demolition waste. European Waste Code (EWC) 17 09 04

Contains cement.

ZP1

See Material Safety Data Sheet (MSDS).

### **Assessments and Approvals:**

Europe: ETA-12/0383, ETA-12/0575

Germany: Z-33.41-130, Z-33.42-131, Z-33.43-132, Z-33.44-133, Z-33.47-859, Z-33.2-677, Z-33.49-1071

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## Special Risks (Hazard Note) / Safety Advice (Status as at Date of Publication)

## Risk and Transportation Markings

Giscode

Further Details

## Customer Service Centre

## Technical Information No.186 · Issue: March 2018

All suggestions and application instructions herein are based on our latest technical experience. Due to the wide variety of individual project conditions, we cannot be held responsible for their content. These instructions do not release the purchaser/ applicator from his responsibility to determine the suitability of the product in consideration of the project characteristics. These instructions are to be considered void when a new edition is released. Our general conditions of sale and delivery in their latest edition apply. This document is a translation of our German Technical Information No.186 · Capatect Klebe- und Armierungsmasse 186 M · Issued: September 2017