

## weber.therm 307

### Lightweight bonding and reinforcing mortar

**Multi-use, thick-layer, mineral and lightweight bonding and reinforcing mortar within the Weber internal insulation system**

#### Fields of application

Also as bonding and reinforcing mortar within the Weber internal insulation system (weber.Innendämmsystem) for interior use. This system consists of the mineral insulation boards weber.therm MD 042, the bonding and reinforcing mortar weber.therm 307, the woven mesh weber.therm 310 or weber.sys 987 and Weber thin-layer mineral overlay renders (finish top coats) according to EN-998-1 or Weber paints with good permeability to water vapour.

Can be also used on old load-bearing renders (indoors and outdoors).

Furthermore, suitable on new facades and damaged/or cracked old facades within the Etics weber therm A 150.

#### Description

weber.therm 307 is a factory-mixed, mineral dry mortar according to EN 998-1.

#### Composition

Cement, white lime hydrate, classified mineral aggregates, mineral lightweight aggregates, hydrophobing agents, additives for better workability and adhesion to substrate (underlay render)

#### Main features

- thick-layer, mineral bonding and reinforcing mortar
- provides a high-performance reinforcement layer for the pre-said Etics in combination with the weber.therm reinforcement fabrics

- can also be used to overcoat old load-bearing renders
- purely mineral
- high bonding strength
- high yield
- extremely lightweight
- suited for float finishing
- highly safe and easy application

## Technical values

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Water absorption coefficient (w):	< 0.5 kg/m <sup>2</sup> v <sub>h</sub>
Water vapour diffusion resistance coefficient (μ):	≤ 20
Class of capillary water absorption (EN 1062-1):	W 2
Adhesion tensile strength on substrate:	> 0.3 N/mm <sup>2</sup>
Solid mortar density:	< 1000 kg/m <sup>3</sup>
Yield:	approx. 1400 liters/ton
Compressive strength (28 days):	> 2 N/mm <sup>2</sup> (class CS II – EN 998-1)
Class of reaction to fire (EN 13501-1):	A 1 (non-combustible)

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## Quality control

weber.therm 307 is subject to a regular quality control.

## General notes

- The scope of this data sheet is the Weber internal insulation system (weber.Innendämmsystem).
- For application and design follow the national guidelines/standards; if not issued and if necessary, refer to the norms DIN 18350 VOB/C and DIN 18550.
- The consumption figures mentioned in this document refer to the minimum layer thickness of the mortar. Due to specific substrates and application variations the consumption might vary. Exact consumption must be determined on a job site mock-up (trial area).

- Adjacent building parts must be separated from the built-in render system.
- Protect the fresh mortar from too quick water evaporation, for ensuring an optimal hardening.

## Special notes

- Limits of use: only thin-layer mineral overlay renders can be applied on top of weber.therm 307.
- For full information related to all application details, like assembly of boards, dowelling works, reinforcement of corners, assembly of profiles, socket parts etc. request our technical advice.

## Substrates

- Allowed substrates: concrete, masonry and old load-bearing cement or lime-cement renders
- In case of non-absorbent, dense and smooth substrates (e.g. concrete): use the bonding and reinforcing mortar weber.therm 370.

## Substrate preparation

- The substrate must be load-bearing, sufficiently dry and level.
- Remove dirt, dust and loose parts.
- Remove efflorescence and residues of formwork oil; if necessary via steam-blasting.
- Knock off protruding concrete and mortar residues.
- Remove all gypsum-based substrates.
- The evenness of the substrate must comply with the allowed tolerances (variations) defined by the national standards/guidelines; if not issued and if necessary, refer to the norm DIN 18202 "Tolerances in Building Constructions". If necessary, take the appropriate remedial measures for levelling unsuitable substrates; in case of doubt request our technical advice.
- Differences of  $\pm 10$  mm can be compensated during bonding ( $\pm 20$  mm for additionally dowelled system). Unevenness of more than 10 mm (or 20 mm) must first be levelled out with weber.therm 300 or the lightweight underlay render weber.dur 132.

- Respect the drying time of the pre-said products (at least 7 days) before bonding insulation boards.
- The contractor should report concerns in case of heavy contamination, efflorescence, excessively smooth surfaces, greater unevenness than allowed and too high building moisture (e.g. as a result of moisture-donating finishing works).
- Check old renders carefully and remove all hollow or brittle parts. Clean old substrate and old render; if necessary, pre-wet. Repair the areas with a lightweight lime-cement underlay render, for ex. weber.dur 132.
- Remove at least 70% of any existing old paint coats.
- If an organic paint or render is load-bearing, the insulation boards can be applied after the facade cleaning.
- If the coating is not load-bearing, it must be opened in a checkerboard pattern and removed by steam- or sandblasting by at least 70%.
- Carry out tensile adhesion tests (pull-off tests) on critical substrates.
- Horizontal coverings such as window sills, roof endings, parapet covers etc. must be provided before work begins.
- Expansion joints of the building structure must be taken over in the entire construction of the system. Independent of this, expansion joints should be arranged every 30 meters. Follow the national norms /standards; if necessary, refer to the norm DIN 18 540 "Sealing of External Wall Joints with Joint Sealants".
- For the flush and perpendicular alignment of connections and terminations fix the render profiles with the mortar weber.mix 125.
- The substrate preparation must be adapted to the specific job site conditions.

## Working instructions

- Temperature of air, materials and substrate during application and drying:  $\geq +5^{\circ}\text{C}$   
-  $\leq +30^{\circ}\text{C}$
- Do not add any foreign substances during mixing and application.
- Clean mixing equipment and tools with water (fresh product). Hardened material can only be removed mechanically.

## Mixing

- Mechanical application: the mortar can be applied with all conventional render machines (with mixing, conveying and spraying equipment). For full information request our technical advice.
- A special glue gun can be used to apply the bonding mortar onto the insulation boards.
- Manual application: mix the bag content (30 kg) with approx. 8 liters of water until lump free, using an electric drill and an appropriate stirrer.

## **Application as bonding mortar for insulation boards (internal walls)**

- Bonding of the mineral insulation boards weber.therm MD 042 is carried out with weber.therm 307.
- The boards can be cut to size with the foxtail.
- Spray/apply weber.therm 307 with a stainless smoothing trowel full-surface on the backside of insulation boards.
- Alternatively, spray/apply the mortar full-surface on the substrate and comb with a notched trowel (notch size 10 x 10 mm).
- As a rule, a full contact between substrate and boards must be obtained.
- Position the boards directly without delay, press them on and float them in using horizontal movements.
- After setting level out offsets of the boards, using a grid float.

## **Application as reinforcing mortar over insulation boards (internal walls)**

- After a drying time of at least 3 days works for the reinforcement layer and the dowelling can begin.
- Spray/apply weber.therm 307 with a stainless smoothing trowel in 5 mm - 8 mm thickness onto the insulation boards.
- Rule level with a straight edge (for ex. aluminium beam), avoiding honeycombs and gaping holes.
- Lay the woven mesh weber.therm 310 or weber.sys 987 (mesh size 4 x 4 mm) "wet-on-wet" in vertical or horizontal wrinkle-free strips across the whole surface. The strips must overlap by at least 10 cm. Gently press the mesh with a flat trowel.
- As a rule, the embedding of a diagonal reinforcement with the glass fibre mesh weber.therm 315 (40 cm long - 33 cm wide) is recommended for building openings (for ex. doors, windows).

- Leave the surface of the levelled reinforcing mortar as it should be for the specific subsequent overlay render (finish top coat) to ensure best key (see hereunder).

## **Application of overlay renders (finish top coats) on internal walls**

- Rule level weber.therm 307 to a flat and in-plane surface with a wooden float (do not smooth it).
- Respect a drying time of at least 7 days prior to application of overlay renders.
- Only use renders which are open to water vapour diffusion on top of weber.therm 307: weber.star 220 AquaBalance/240 and 260 (thin-layer mineral renders)/286 (ready-to-use textured lime plaster) or 288 (smooth lime plaster). For a uniform porosity use the primer weber.prim 801.
- If necessary, one coat of the lime-based paint weber.cal Innensilikatfarbe is recommended to eliminate eventual minor texture and/or colour differences.

## **Application on old load-bearing overlay renders on internal walls**

- Clean and prepare the old surfaces (see above).
- Spray/apply the mortar onto the cleaned and prepared old renders up to max. 10 mm thickness.
- Rule level with a straight edge (for ex. aluminium beam).
- In case of cracks in the substrate lay the woven mesh weber.therm 310 or weber.sys 987. Follow the instructions for the mesh processing as mentioned above.
- After at least 7 days apply the new thin-layer mineral overlay render.

## **Practical information**

Colours:  
natural white

Application thickness:  
5 mm - 8 mm

Water demand:  
approx. 8 liters / 20 kg

Tools:  
Render machine (with mixing, conveying and spraying equipment), glue gun or electric drill + stirrer, stainless smoothing trowel, straight edge (for ex. aluminium beam),

notched trowel, flat trowel; for boards: foxtail, grid float; for overlay renders: wooden float

#### Storage:

The product can be stored up to 12 months in its original unopened packaging, if kept dry and protected from moisture.

## Consumption / yield

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Bonding mortar:	approx. 4.5 kg/m <sup>2</sup>	approx. 4.5 m <sup>2</sup> / 20 kg
Reinforcing mortar:	approx. 5.5 kg/m <sup>2</sup>	approx. 3.7 m <sup>2</sup> / 20 kg
Bonding and reinforcing mortar:	approx. 10.0 kg/m <sup>2</sup>	approx. 2.0 m <sup>2</sup> / 20 kg

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## Packagings

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Type	Sales unit	Number / euro-pallet
Paper bag	20 kg	42 bags

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