

weber.therm 509

Mineral insulating render

Insulating render with mineral lightweight aggregates



Product profile

- thermally insulating render for historical buildings and monuments
- additional insulation of thermally insulating masonries
- indoor and outdoor use

Product advantages

- low thermal conductivity
- very low-voltage
- purely mineral

Product description

weber.therm 509 is a factory-mixed, mineral dry mortar.

Fields of application

weber.therm 509 is a lightweight, extremely low-stress, thermally insulating render for all solid, load-bearing walls in interior and exterior areas. It is particularly suitable as additional insulation for thermally insulating surfaces with low strength and for the energy-efficient renovation of historical buildings and monuments.

Product features

- low thermal conductivity
- pure mineral lightweight aggregates
- high-yield lightweight plaster
- mould-inhibiting
- very low-voltage
- extremely open to diffusion
- enables large layer thicknesses of 10 - 100 mm
- high capillary conductivity
- high water storage capacity

Consumption / yield

| | | |
|--------------------|---------------------------------|-----------------------------|
| at 10 mm thickness | approx. 3.0 m ² /bag | 210.0 m ² /tonne |
| at 20 mm thickness | approx. 1.5 m ² /bag | 105.0 m ² /tonne |
| at 40 mm thickness | approx. 0.7 m ² /bag | 52.5 m ² /tonne |
| at 60 mm thickness | approx. 0.5 m ² /bag | 35.0 m ² /tonne |

Technical values

| | |
|---|-------------------------------|
| Water vapour diffusion resistance μ | 6 |
| Bulk Density | approx. 400 kg/m ³ |
| Fire Resistance (DIN EN 13501-1) | A1 |
| Class of capillary water absorption | WO |
| Compressive Strength | approx. 2 N/mm ² |
| Strength class | CS II |
| Mortar group (DIN 18550) | P II |

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| | |
|----------------------|--|
| Layer Thickness | 10 - 100 mm |
| Thermal conductivity | 0, dry, mat < 0.08 W/mK |
| Water requirement | approx. 13.5 l/15 kg |
| Composition | cement, fractionated sands, mineral lightweight aggregates, additives for better application |

Storage

| | |
|--------------------|--|
| Shelf life | min. 12 months |
| Storage conditions | Store dry and protected from moisture in the unopened original container |

Application

Surface preparation

- The surface must be load-bearing and free of dust and adhesion-reducing substances.
- Pre-wet dry surfaces until matt damp.
- Pre-spray unevenly absorbent surfaces with **weber.therm 509** in a layer thickness of approx. 10 mm and comb on roughly with a broom. After a standing time of 1 to a maximum of 3 days, start rendering.
- Dense surfaces (e.g. concrete, XPS or EPS surfaces) require pre-treatment with the mineral bonding mortar **weber.dur 101** as a grooved levelling compound.
- In the case of unlevelled render substrates (e.g. deviation from DIN 1053 "Masonries" and DIN 18202 "Tolerances in building construction"), remedial action must be taken or concerns must be raised.
- Apply render profiles with **weber.mix 125** profile setting mortar for plumb and flush connections and terminations.
- Welnet render base must be used from a layer thickness of more than 60 mm.

Application

Mechanical application:

- The mortar can be applied with all standard plastering machines (see equipment planner).

Manual application:

- Thoroughly mix the contents of a bag with the specified amount of water to produce a consistency suitable for processing.
- Apply at least 20 mm, maximum 30 mm (single-layer application) as a heat-insulating lightweight system render, tighten and level.
- Larger render thicknesses must be applied in several layers, whereby the first layer should not have a standing time of more than 3 days.
- The surface is roughened or levelled to receive the levelling plaster.

General notes

Do not mix with other substances during mixing and application.

The air temperature, the used materials and the surface must not fall below +5 °C during application and drying.

The freshly applied render must be protected from rain to prevent efflorescence, among other things, and from rapid moisture extraction to ensure optimum hardening.

Apply to application and execution DIN 18350 VOB, Part C, DIN 18850 and DIN 18550 as well as DIN EN 13914.

Consumption may vary depending on the surface type and application method. Exact consumption values must be determined by testing different areas of the object.

Adjacent components must be separated from the plaster system.

Remove the sintered layer before applying further layers.

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Special notes

The plaster base must be sufficiently dry and must not have any pressing or rising moisture.

weber.therm 509 can be coated with a reinforcing plaster after a standing time of 10 days.

A full-surface reinforcement layer must always be applied. For very dark colours <HBZ 20 or very fine structures under 2 mm, a double layer of reinforcing filler should be applied and the use of TSR technology should be checked.

The reinforcement layer consists of the adhesives and reinforcement mortars **weber.therm 300**, **weber.therm 302** or **weber.therm 304** and the reinforcement fabric coarse **weber.therm 310**. Alternatively, the fine reinforcement fabric **weber.therm 311** can be used with the reinforcement mortars **weber.therm 302** and **weber.therm 304**.

In interior areas, **weber.cal Kalk-Haftputz** with coarse reinforcement fabric **weber.therm 311** may be used as a reinforcing filler layer.

Use perimeter insulation boards or render in the socket area.

A filling machine with insulating render mixing spiral and D8 1.5 worm pump with clamp is required for application. Use a hose thickness of 35 mm. The hose length should be limited to 20 m.

Further information: See equipment planner.

Packaging units

| Type | Unit | PU |
|------|-------------|-------------------|
| sack | 15 kilogram | 40 sacks / palett |