

weber.san 954

Damp-proof render, natural white

Air-entrained, damp-proof render for renovation of old salt-contaminated and damp masonries

Fields of application

As very porous and vapour-permeable masonry repair damp-proof render.

Especially used on the internal side of damp and salt-contaminated of basement walls below ground level and on external side of above-ground masonries (splash water areas/facade socket areas), damaged by ground damp and salts.

Due to its porous structure it is able to take up damaging salt crystals and hence it can lead to a good drying of the damp masonry.

For use indoors and outdoors.

Description

weber.san 954 is a hydraulically-setting and factory-mixed dry mortar according to EN 998-1. It is compliant with the WTA leaflet 2-9 (WTA = International Association for Science and Technology of Building Maintenance and Monuments Preservation). With WTA test certificate (Germany).

Composition

White cement, white lime hydrate, special mineral fillers, regulating additives.

Main features

- highly open to water vapour diffusion
- resistant to salts
- low capillary water absorption
- high air void content; hence high uptake of crystal salts
- low tension when hardening
- low consumption
- mould-inhibiting
- easy application

- for mechanical and manual application
- for use indoors and outdoors

Technical values

Application thickness:	single layer up to 3 cm; double layer: max. 4 cm
Application temperature (air and substrate):	+5°C - +30°C
Pot life:	approx. 45 minutes
Consistency:	non-sag (trowel-grade)
Powder bulk density:	approx. 1.05 kg/dm ³
Solid mortar density:	< 1300 kg/m ³
Air void content of solid mortar:	> 40% by volume
Air void content of fresh mortar:	> 25% by volume
Flexural strength (28 days):	> 0.5 N /mm ²
Compressive strength (28 days):	> 1.5 N/mm ² (strength class II - EN 998-1)
Water vapour diffusion resistance coefficient (μ):	≤ 15
Water absorption:	≥ 0.3 kg/m ² after 24 hours
Pull-off strength:	≥ 0.08 N/mm ² (fracture pattern A, B, C)
Thermal conductivity (EN1745):	≤ 0.39 W/m.K (tabulated 50%)
Class of reaction to fire (EN 998-1):	A 1 (non-combustible)

Quality control

weber.san 954 is subject to a regular quality control by external monitoring and self-monitoring.

General notes

- All characteristics mentioned in this data sheet are given in this data sheet require a temperature of + 23°C without draughts and a relative humidity rate of 50%.
- The relative air humidity rate should not exceed 60%; the air and substrate temperature should be +5°C to ensure a proper setting.
- Proceed to a salt and damp analysis prior to application/remediation.
- For surfaces with high salt-contamination and in line with the WTA guidelines it is recommended to apply a damp-proof underlay render with high air content, like **weber.san 952** as basecoat render. The thickness of each layer depends upon the determined salt content; refer to the figures given hereunder in this document "Recommended application thickness of damp-proof renders in accordance with salt content in % by weight".

- A complete drying out of the masonry can only be achieved by additional measures, like the installation of a horizontal damp-proof barrier with the silicone micro-emulsion-based injection liquid **weber.tec 940 E** or the silane-based injection cream **weber.tec 946** and/or the installation of a vertical waterproofing on exterior side of basement walls, for ex. the 2-comp. lightweight bitumen waterproofing thick coating **weber.tec Superflex 10**, etc.
- Protect **weber.san 954** from sunlight and draughts to avoid too quick drying.
- Observe the general rendering application rules.

Special notes

- Do not add foreign products during mixing and application.
- The render is not allowed to come in contact with gypsum-containing materials.
- Especially on waterproofing cement-based slurries hairline-cracking cannot be completely excluded, depending on the specific conditions on job site; this cracking does not influence the functionality of damp-proof render in a negative way.
- The imbedding of the reinforcement woven mesh **weber.sys 987** into the fresh render will prevent hairline cracking.
- For application comply with the national standards and/or guidelines relating to works with damp-proofing of masonries (for ex. WTA leaflets 2-9 "Masonry Repair Damp-Proof Systems" and 4-6 "Subsequent Damp-Proofing of Ground-contacting Structures"). If not issued and if necessary, request technical advice.

Substrate preparation

- Remove old renders and paints down to the load-bearing substrate.
- Replace or supplement damaged masonries.
- Scrape brittle masonry joints to a depth of approx. 2 cm and clean the whole surface by mechanical means.
- Extend the substrate preparation at least 0.8 m beyond the limit of moisture damages; for tailing inner walls or vault ceilings prepare the substrate on at least 1 meter, measured from the exterior wall.
- Damp masonry must have dried sufficiently.
- Apply the quick-setting stipple coat/bondcoat **weber.san 951 S** net-like with a surface coverage of 50% (within the WTA repair system) up to 70 % on the prepared masonry; respect a drying time of 30 minutes (absorbent substrates) or 45 minutes (non-absorbent substrates) prior to application of **weber.san 954**.
- In case of high salt contamination use the multi-air entrained render **weber.san 952** as basecoat and levelling coat in a thickness of min. 10 mm up to 20 mm under **weber.san 954**. Rule level with flat trowel and comb horizontally with a notched trowel; after a waiting time of approx. 3 days apply the final damp-proof render **weber.san 954**.

- The substrate preparation must be adapted to the specific job site conditions.

Mixing

- Mechanical application: use forced-action mixer and mix for approx. 3 - 4 minutes.
- Manual application: mix the bag content (25 kg) with approx. 7.5 - 8.5 liters of water for approx. 2 minutes until lump-free, using an electric drill and the stirrer **weber.sys Rührpaddel** no. 4.

Application

- Mechanical application: use render machines with spiral casing D6-3, clip system and additional mixing unit, such as mono-mix FU (company m-tec). For full information request our technical advice.
- Manual application: the render is either thrown-on with a triangular hawk trowel or commonly applied with a flat trowel on the dry stipple coat/bondcoat.
- **weber.san 954** is applied in 1 or 2 layers, taking care to reach a most uniform thickness.
- Allowed layer in one-layer operation: 20 mm - 30 mm.
- Total thickness for two operations: max. 40 mm with a minimal thickness of 10 mm per coat.
- In the case of one-layer application rule level the render with aluminium beams.
- In the case of two-layer operation rake the 1st layer horizontally without delay with a tiler trowel (notch 6 - 8 mm) or with the flat trowel **weber.sys Aufstreichkelle**, equipped with the 5-mm triangular notch blade Zahnleiste no. 2 before applying the 2nd layer.
- Respect a drying time of 1 day per mm thickness between 1st and 2nd layer.
- After approx. 45 minutes, depending on air temperature, smooth down **weber.san 954** with a sponge board or a plastic float carefully in accordance with the general technical rules of plastering.
- In the case of use on cement-based waterproofing slurries, apply **weber.san 954** in one layer in a thickness of approx. 15 mm up to 20 mm and insert the woven mesh **weber.sys 987** into the fresh layer. The render thickness over the mesh should be approx. 5 mm. Due to the low-porosity of such waterproofing products the drying time of the render will be delayed.
- After drying, we recommend the application of the white fine-graded render **weber.san 956** (indoors and outdoors) or the silicate paint **weber.san Silikatfarbe** (indoors).
- Clean mixing equipment and tools with water (fresh product). Hardened material can only be removed mechanically.

Recommended application thickness of damp-proof renders in accordance with salt content in % by weight

- Nitrate < 0.1 / chloride < 0.2 / sulphate < 0.5: at least 15 mm
- Nitrate 0.1 - 0.3 / chloride 0.2 - 0.5 / sulphate 0.5 - 1.5: at least 20 mm
- Nitrate > 0.3 / chloride > 0.5 / sulphate > 1.5: at least 40 mm in 2 layers

Practical information

Colours:
natural grey

Water demand:
approx. 7.5 liters / 25 kg

Tools:
Render machine with spiral casing D6-3, clip system and additional mixing unit, forced-action mixer or electric drill + stirrer **weber.sys Rührpaddel** no. 4, triangular hawk trowel, tiler trowel (notch size 6 - 8 mm) or flat trowel **weber.sys Aufstreichkelle** + 5-mm triangular notch blade Zahnleiste no. 2, sponge board or plastic float.

Storage:
The product can be stored at least 12 months in its original unopened packaging, if kept dry.

Consumption / yield

per cm layer thickness: approx. 10.0 kg/m²

Packagings

Type	Sales unit	Number / euro-pallet
Paper bag	25 kg	40 bags

The information in this technical data sheet is based on our current knowledge and experience at the time of printing. However, they do not guarantee in the legal sense.