# Technical Data Sheet

# weber.dur 120

## Cement render

## Mineral cement render as base coat or base and top coat for very heavily stressed surfaces

### Fields of application

Outdoors as base coat render on masonries, in particular for facade parts and walls with permanent damp exposure.
Also as base coat render for external waterproofing of earth-contacting basement walls.
Furthermore, as base coat and as smooth top coat render for facade socket parts.
Indoors as base coat or base coat and top coat render.
Can be coated with all **Weber** thin-layer mineral and organic overlay renders (finish top coats) and all **Weber** paints for exterior or interior use.
Furthermore, for use in swimming pools, we recommend the quick-setting levelling mortar **weber.plan 819**.
For use outdoors and indoors.

### Description

**weber.dur 120** is a factory-mixed, mineral dry mortar according to EN 998-1.

### Composition

Cement, well-graded mineral aggregates, hydrophobing agents, additives for better workability and adhesion to substrate.

### Main features

- resistant to splash water and permanent dampness; hence suited for socket parts of facades and earth-contacting basement walls
- weather- and frost-resistant
- water-repellent
- resistant to high mechanical loads
- easy finishing works
- for mechanical and manual application


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- for use as base coat or base coat + top coat on new and old masonries under Weber overlay renders and/or paints
- for use outdoors and indoors

## Technical values

| | |
|---|---|
| Application thickness: | 10 mm - 20 mm |
| Compressive strength (28 days): | > 6 N/mm² (class CS IV - EN 998-1) |
| Flexural strength (28 days): | ≥ 3 N/mm² |
| Yield: | approx. 650 liters/ton |
| Solid mortar density: | approx. 1.650 kg/m³ |
| Water vapour diffusion resistance value (μ): | ≤ 25 |
| Water absorption coefficient (w): | < 0.5 kg/m² * √h |
| Class of capillary water absorption: | W 2 |
| Mortar group (DIN 18550): | P III |
| Class of reaction to fire (EN 13501-1): | A 1 (non-combustible) |

## Quality control

**weber.dur 120** is subject to a regular quality control by self-monitoring according to EN 998-1.

## General notes

- Protect fresh render surfaces from direct sunshine, strong winds or moisture.
- Comply with the national guidelines and/or standards (for ex. DIN 18550); if not issued and if necessary, request technical advice.
- The consumption figures mentioned in this document refer to the minimum layer thickness of the render. 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.

## Special notes

- **Limits of use**: **weber.dur 120** is not suitable for the hereunder mentioned substrates.
- Highly heat-insulating masonries (lightweight vertically perforated bricks with thermal conductivity λ < 0.11 W/mK and aerated concrete blocks of type G 2): use the lime-cement underlay renders **weber.dur 132/132 SLK/137** or **140 SLK**.
- Mixed masonries (brickwork, quarry stones, aerated concrete, concrete): only use a lightweight lime-cement underlay render, like **weber.dur 121/121 SLK/132/132 SLK/135/136/137** or **140 SLK**. A reinforcement layer (bonding and reinforcing mortar **weber.therm 300** + woven mesh **weber.therm 310**) is necessary on top of the render.

- Chipboard concrete formwork blocks / wood wool lightweight panels: use the lime underlay render **weber.cal 172** or the lime-cement ones **weber.dur 121/121 SLK/132/132 SLK/135/136/137** or **140 SLK**.
- Mineral building slabs (for ex. Aquapanel Outdoor, Blueclad, Duri/Masterpaneel): apply a full-surface reinforcement layer (thickness 5 - 7 mm) consisting of the bonding and reinforcing mortar **weber.therm 300** or **301** and the woven mesh weber.therm 310 (mesh size 8 x 8 mm) on the levelled render layer.
- Polystyrene formwork blocks: see above; in case of thicker layer > 7 mm use the lightweight underlay render **weber.therm 376** (8 - 20 mm).

## Substrates

- Following substrates are allowed (see hereunder).
- High-porosity substrates: aerated concrete blocks, lime sandstones and lightweight vertically perforated bricks
- Normal absorbent substrates: pumice stones, KLB climate blocks, Liapor bricks (combination of expanded clay and cement) and solid bricks
- Low-porosity substrates: concrete blocks, highly-fired bricks and quarry stones
- Low-grip and non-absorbent substrates (dense and smooth surfaces): concrete and clinker
- For other substrates not mentioned in this document request technical advice.

## Substrate preparation

- The substrate must be load-bearing, clean, dry, free of dust, and all adhesion-impairing particles and substances.
- Remove efflorescence and residues of formwork oil; if necessary, by mechanical means.
- Remove cement laitance (hard sinter skin) with a notched large trowel.
- High-porosity substrates: pre-wet; if necessary, use an appropriate primer.
- Normal absorbent substrates: pre-wet.
- Low-porosity substrates: apply the cement stipple coat (bondcoat) **weber.dur 100** with a surface coverage of 50%, using the throw-on technique with a triangular hawk trowel, at a rate of approx. 4 kg/m$^2$; after initial setting roughen with a hard broom.
- Low-grip and non-absorbent substrates: apply the mineral bonding layer weber.dur 101 in approx. 5 mm thickness at a rate of approx. 5 kg/m$^2$ and comb horizontally with a notched trowel.
- Respect the drying time of the pre-said products (1 day per mm) prior to next applications.

- The substrate evenness must comply with the allowed tolerances (variations) defined by the national standards and/or guidelines (for ex. DIN 18202 “Tolerances in Building Constructions”). If necessary, take the appropriate remedial measures for levelling the substrates; if in doubt, request technical advice.
- For the flush and perpendicular alignment of connections and terminations fix the render profiles with the profile bonding and installation mortar weber **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: ≥ +5°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 render can be applied with all conventional render machines (with mixing, conveying and spraying equipment). For full information request technical advice.
- Manual application: mix the bag content (30 kg) with approx. 5.5 liters of water until lump-free, using an electric drill and an appropriate stirrer.

### Application as base coat render (outdoors/indoors)

- Spray/apply **weber.dur 120** and strike off with a stainless steel smoothing trowel.
- Apply in 1 or 2 layers in the appropriate thickness of approx. 15 mm (min. 10 mm - max. 20 mm), depending on type and evenness of substrate.
- Rule level the render flush and perpendicular with a straight edge (for ex. aluminium beam), avoiding honeycombs or gaping holes.
- Low-porosity substrates: apply 1 layer of 10 - 20 mm thickness.
- Low-grip and non-absorbent substrates: apply 1 or 2 layers (with a short delay of approx. 10 minutes) in a total thickness of approx 15 mm.
- Use as exterior base coat under waterproofing compound: apply in at least 10 mm thickness and roughen the levelled render layer with a grid float in tight circular motions prior to begin of waterproofing works.
- When used in 2 layers with time delay, comb the 1$^{st}$ layer horizontally with a notched large trowel or a hard broom; let dry the 1$^{st}$ layer 1 day per mm and afterwards apply the 2$^{nd}$ layer.

- In case of required total thickness > 20 mm, comb the last layer horizontally with a notched large trowel or a hard broom; let dry the 1st layer 1 day per mm and afterwards apply a further layer of 10 - 20 mm thickness. The use of a metal cloth is mandatory on non-loading substrates.
- Respect the drying time of **weber.dur 120** (1 day per mm thickness) prior to next applications.
- Leave the surface of **weber.dur 120** as required for the specific overlay render (finish top coat) or paint to ensure best key (see hereunder).

**Application as base coat and top coat render (outdoors/indoors) with overlay renders/paints**

- Apply a 1st layer (base coat) in the appropriate thickness of approx. 15 mm (min. 10 mm - max. 20 mm) and comb horizontally with a notched large trowel or a hard broom.
- Next day apply a 2nd layer (top coat) in 3 - 4 mm thickness.
- Outdoors/facade socket parts: rule level **weber.dur 120** to a flat and in-plane surface with a wooden float. For full information related to top coats and/or paints request technical advice.
- Outdoors/masonries/overlay renders: rule level **weber.dur 120** to a flat and in-plane surface with a wooden float and apply a thin-layer mineral (range **weber.star**) or organic (range **weber.pas**) overlay render.
- Outdoors/masonries/paints: rule off **weber.dur 120** to a smooth surface with a damp sponge float or felt float in tight circular motions and apply a paint (range **weber.ton AquaBalance**) for exterior use, for ex. **weber.ton 410/411/412/414/420** or **415** (in case of cracks).
- Indoors/overlay renders: apply a thin-layer mineral (range **weber.star**) or organic (range **weber.star**) overlay render.
- Indoors/paints: apply a paint (range **weber.cal** or **weber.ton**) for interior use, for ex. **weber.cal Innensilikatfarbe** or **cal Kalkfarbe** resp. **weber.ton 411 AquaBalance** or **412 AquaBalance**.

**Uses of reinforcement layer**

- For the following unfavorable building conditions we recommend the use of a full-surface reinforcement layer (5 - 8 mm) consisting of the bonding and reinforcing mortar **weber.therm 300** or the lightweight underlay render **weber.therm 376** and the woven mesh **weber.therm 310**. This layer provides a dimensional stability and ”decouples” the overlay render (top coat) from stresses of the substrate (i.e wall-building material and underlay render as base coat).
- Prolonged damp weather and increased building moisture (also from substrate): respect the drying time of the underlay render (at least 4 weeks) and apply an additional reinforcement layer onto the underlay render (base coat).
- Special exposure of the facade (heavily stressed weather sides): apply an additional reinforcement layer onto the base coat.

- Fine-grained overlay renders (freestyle textured top coats) with a grain size < 2 mm: apply an additional reinforcement layer onto the base coat.
- Dark colours of the overlay renders (top coats): apply an additional reinforcement layer onto the base coat.
- Considerable irregularities in the substrate: apply an additional reinforcement layer onto the base coat, like in the case of mixed masonries with also different porosity.
- XPS or HWL roller shutter boxes: apply the reinforcement layer directly onto the substrate in the concerned areas and insert the woven mesh **weber.therm 310** on the base coat.
- Missing over binding dimension (= smallest distance between the vertical butt joints of two superimposed stones) on a large scale: carry out static tests and apply an additional reinforcement layer onto the base coat.
- Many cracked stones on different spots: apply an additional reinforcing layer onto the base coat; in case of several cracked stones below one another: carry out a static investigation.
- Other building conditions may justify the application of a reinforcing layer; if in doubt, request technical advice.

## Practical information

Grain sizes:
approx. 1.0 mm - max. 2.0 mm

Colour:
natural grey

Application thickness:
10 mm - 20 mm

Water demand:
approx. 5.5 liters / 30 kg

Tools:
Render machine or electric drill + stirrer, stainless steel smoothing trowel, straight edge (for ex. aluminium beam), notched large trowel; for finishing works in case of overlay renders: hard broom or notched large trowel, sponge float, felt float or wooden float; in case of exterior waterproofing compound: grid 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

| | | |
|---|---|---|
| 15 mm thickness: | approx. 23.0 kg/m² | approx. 1.3 m² / 30 kg |

## Packagings

| Type | Sales unit | Number / euro-pallet |
|---|---|---|
| Paper bag | 30 kg | 42 bags |




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