Technical Data Sheet

weber.dur 136

Lightweight lime-cement render

Mineral lightweight render with mineral lightweight fillers as base coat or base coat and top coat

Fields of application

Particularly dedicated for use on highly heat-insulating masonries.
Outdoors and indoors as base coat render on masonries with all **Weber** thick-layer and thin-layer mineral or organic overlay renders (finish top coats).
Also outdoors and indoors for use as base coat and top coat render with solvent-free or solvent-containing paints.
Furthermore, as interior base coat render for ceramic wall tiles and slabs.
For use outdoors and indoors.

Description

weber.dur 136 is a factory-mixed, mineral dry mortar according to EN 998-1.

Composition

Cement, white hydrated lime, graded mineral aggregates, perlite, hydrophobing agents, additives for better workability and adhesion to substrate.

Main features

- water-repellent
- open to water vapour diffusion
- particularly suitable for heat-insulating masonry
- very low tension thanks to its low dynamic modulus of elasticity
- good non-sag behaviour
- purely mineral
- offers a nice and smooth surface
- for mechanical and manual application
- for use as base coat or base coat + top coat on many substrates

Saint-Gobain Weber GmbH
Schanzenstr. 84, D-40549 Düsseldorf
Contact: export.de.weber@saint-gobain.com

- also as interior base coat under ceramic tiles
- for use outdoors and indoors, depending on specific use

Technical values

Application thickness:	10 mm - 20 mm
Compressive strength (28 days):	> 2 N/mm² (class CS II - EN 998-1)
Flexural strength (28 days):	> 1 N/mm²
Yield:	approx. 850 liters/ton
Solid mortar density:	< 1.300 kg/m³
Water vapour diffusion resistance value (μ):	≤ 20
Dynamic modulus of elasticity:	< 4.000 N/mm²
Water absorption coefficient (w):	< 0.5 kg/m² * √h
Class of capillary water absorption:	W 2
Mortar group (DIN 18550):	P II
Render type:	lightweight render (type I)
Class of reaction to fire (EN 13601-1):	A1 (non-combustible)

Quality control

weber.dur 136 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

- **weber.dur 136** is suitable for interior use as base coat for ceramic wall tiles and slabs up to a total weight of 25 kg/m² including thin-bed mortar and tiles.
- Exterior use under ceramic wall tiles and slabs: apply the bonding and reinforcing mortar **weber.therm 300** or **301** with the woven mesh **weber.therm 310** (mesh size 8 x 8 mm) on the whole surface of the levelled render; afterwards lay ceramic coverings.

- **Limits of use**: **weber.dur 136** is not suitable for the hereunder mentioned substrates.
- Highly heat-insulating masonries (lightweight perforated bricks with thermal conductivity λ < 0.11 W/mK and aerated concrete of type G 2): use the lightweight lime-cement underlay renders **weber.dur 132/132 SLK/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, lime sandstones and lightweight vertically perforated bricks.
- Normal absorbent substrates: pumice stones, climate light blocks (KLB), 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, clinker.
- Mixed masonries: brickwork, quarry stones, aerated concrete, concrete.
- Chipboard concrete formwork blocks.
- Wood wool lightweight panels.
- For 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 oils; 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.

- Mixed masonries: pre-wet and apply the cement stipple coat **weber.dur 100** wart-like (with a surface coverage of 50%) in case of low-porosity substrates, e.g concrete blocks, highly-fired bricks and quarry stones; for large-size quarry natural stones use the normal-setting stipple coat **weber.san 160 WTA**.
- Low-grip and non-absorbent substrates: apply the mineral bonding layer **weber.dur 101** or the cement-based bonding mortar **weber.therm 370** in approx. 5 mm thickness at a rate of approx. 5 kg/m^2 and comb horizontally with a notched trowel.
- Large-size lime sandstone blocks: apply the mineral stipple coat **weber.dur 100** at a coverage of 50% with a consumption of 4 kg/m^2.
- Respect the drying time of the pre-said products (1 day per mm thickness) 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.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 our technical advice.
- 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 base coat render (outdoors/indoors)

- Spray/apply **weber.dur 136** 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.
- High-porosity substrates and/or differently absorbent substrates (mixed masonries): apply 2 layers ”wet-in-wet” (1st layer of approx. 15 mm and 2nd layer up to 5 mm thickness). After the render surface changes from glossy to matt (approx. 10 - 20 minutes) apply the 2nd layer. The thickness of the 1st layer should be 2/3 of the total thickness (20 mm). In case of mixed masonries apply a reinforcement layer. (bonding and reinforcing mortar **weber.therm 300** + woven mesh **weber.therm 310**) afterwards.
- 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 1st layer horizontally with a notched large trowel or a hard broom; let dry the 1st layer 1 day per mm and afterwards apply the 2nd 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 136** (1 day per mm thickness) prior to next applications.
- Leave the surface of **weber.dur 136** as required for the specific overlay render (finish top coat) or paint to ensure best key (see hereunder).

Application as base coat render (outdoors/indoors)

- Spray/apply **weber.dur 136** and strike off with a stainless 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.
- High-porosity substrates and/or differently absorbent substrates: apply 2 layers ”wet-in-wet” (1st layer of approx. 15 mm and 2nd layer up to 5 mm thickness). After the render surface changes from glossy to matt (approx. 10 - 20 minutes) apply the 2nd layer. The thickness of the 1st layer should be 2/3 of the total thickness (20 mm). In case of mixed masonries apply a reinforcement layer. (bonding and reinforcing mortar **weber.therm 300** + woven mesh **weber.therm 310**) afterwards.
- Normal absorbent substrates: apply 1 layer of 10 - 20 mm thickness.
- 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. 10 - 20 mm.
- Chipboard concrete formwork blocks / wood wool lightweight panels: apply 1 layer of approx. 10 - 20 mm thickness, inserting the woven mesh **weber.therm 310** in the upper third of the render layer.
- Use as interior base coat under wall ceramic tiles and slabs: apply 1 layer of at least 10 mm thickness and roughen the levelled render layer with a grid float in tight circular motions prior to application of ceramic coverings.
- Use as exterior base coat under ceramic wall tiles and slabs: see above “Special notes”.
- When used in 2 layers with time delay, comb the 1st layer horizontally with a notched large trowel or a hard broom; let dry the 1st layer 1 day per mm and afterwards apply the 2nd 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 1 the 1st layer 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 136** (1 day per mm thickness) prior to next applications.
- Leave the surface of **weber.dur 136** as required for the specific overlay render (finish top coat) or paint to ensure best key (see hereunder).

Application as base coat render (outdoors/indoors) with overlay renders

- All **Weber** mineral (range **weber.star** and **weber.top**) and organic (range **weber.pas**) overlay renders can be used as finish top coats on top of **weber.dur 136**.
- In case of thick-layer mineral overlay renders (scratch renders **weber.top**) comb **weber.dur 136**, using a hard broom or a notched large trowel.
- In case of thin-layer mineral (range **weber.star**) or organic (range **weber.pas**) overlay renders rule level **weber.dur 136** to a flat and in-plane surface with a wooden float (do not smooth it).

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

- Apply a 1st layer (base coat) in the appropriate thickness (approx. 10 mm - 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 136** 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 136** 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 136** to a smooth surface with a damp sponge float or felt float in tight circular motions and apply a paint (range **weber.ton**) for exterior use, for ex. **weber.ton 410 AquaBalance/411 AquaBalance/412 AquaBalance/414 AquaBalance/415** (in case of cracks) or **420 AquaBalance**.
- 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 unfavourable 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** 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 overbinding dimension (= smallest distance between the vertical butt joints of two superimposed stones) on a large scale: carry out static tests and apply additional reinforcement layer onto the base coat.
- Many cracked stones on different spots: apply an additional reinforcement layer onto the underlay render; in case of several cracked stones below one another: carry out a static investigation.
- Other building conditions may justify the application of a reinforcement layer; if in doubt, request technical advice.

Practical information

Grain size:
approx. 1.0 mm

Colour:
natural grey

Application thickness:
10 mm - 20 mm

Water demand:
approx. 8 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, notched large trowel or wooden float; in case of paints: sponge float or felt float; in case of ceramic coverings: 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. 16.5 kg/m²	approx. 1.8 m² / 30 kg

Packagings

Type	Sales unit	Number / euro-pallet
Paper bag	30 kg	35 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.

Saint-Gobain Weber GmbH
Schanzenstr. 84, D-40549 Düsseldorf
Contact: export.de.weber@saint-gobain.com