Technical Data Sheet

weber.dur 140 SLK

Very lightweight lime-cement and fiber-reinforced render

Mineral lightweight and fiber-reinforced render with optimized setting and scratching properties

Fields of application

As accelerated, cost-effective, highly fiber-reinforced, lightweight mineral exterior base coat render (type II) for use on highly heat-insulating masonry with low strength, e.g lightweight perforated bricks (thermal conductivity λ < 0.11 W/mK, bulk density < 600 kg/m³, compressive strength < 6 N/mm^2) or aerated concrete.
Due to its fiber-reinforcement and its low modulus of elasticity **weber.dur 140 SLK** offers a high crack resistance.
Can be coated with all **Weber** mineral or organic overlay renders (finish top coats).
Also as interior and exterior base coat render under ceramic wall tiles and slabs.
For use outdoors and indoors.

Description

weber.dur 140 SLK is a factory-mixed, mineral dry mortar according to EN 998-1. With optimized setting and scratching properties.

Composition

Cement, white hydrated lime, mineral and organic lightweight aggregates, graded mineral aggregates, fibers, hydrophobing agents, additives for better workability and adhesion to substrate

Main features

- very low tension when hardening
- excellent workability
- excellent non-sag behaviour
- fiber-reinforced
- optimized setting and scratching properties; hence enabling fast finishing works
- regular and fast-setting behaviour on almost all surfaces, allowing roughening with grid float after only approx. 1 hour

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- offers the greatest protection against crack formation
- for mechanical and manual application
- for use as exterior base coat on highly heat-insulating masonry
- also as interior and exterior base coat under ceramic tiles
- for use outdoors and indoors, depending on specific use

Technical values

Application thickness.	15 mm - 30 mm
Compressive strength (28 days):	approx. 2 N/mm² (CS II - EN 998-1)
Yield:	approx. 1.250 liters/ton
Solid mortar density:	< 1.000 kg/m³
Water vapour diffusion resistance value (μ):	≤ 20
Dynamic modulus of elasticity:	< 1.800 N/mm²
Thermal conductivity $\lambda_{10, dry}$ (EN 1745):	≤ 0.21 W/mK (P = 50%, tabulated)
Thermal conductivity $\lambda_{10, dry}$ (EN 1745):	≤ 0.23 W/mK (P = 90%, tabulated)
Class of capillary water absorption:	W 2
Mortar group (DIN 18550):	P II
Render type:	lightweight render (type II)
Class of reaction to fire (EN 13501-1):	A 1 (non-combustible)

Quality control

weber.dur 140 SLK 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 140 SLK** is suitable for interior use as base coat for ceramic wall tiles and slabs with a total weight of 25 kg/m² including thin-bed mortar and tiles/slabs.

- 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 140 SLK** is not suitable for the hereunder mentioned substrates.
- Mineral building slabs (for ex. Aquapanel Outdoor, Blueclad, Duri/Masterpaneel): apply a full-surface reinforcing 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).
- If gypsum or gypsum-containing materials were previously machine-applied, clean the render machine, hoses and dry conveyor system thoroughly before using **weber.dur 140 SLK**.
- Do not leave mortar hoses in the sun.
- Work interruptions during the machine application may not exceed 20 minutes.
- Under favourable weather and hardening conditions, **weber.dur 140 SLK** can be coated with all **Weber** mineral thin-layer overlay renders (range **weber.star**) after a drying time of ½ day per mm of thickness.

Substrates

- Following substrates are allowed (see hereunder):
- Highly heat-insulating masonries: lightweight vertically perforated bricks with thermal conductivity $\lambda < 0.11$ W/mK and aerated concrete blocks of type G 2
- 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 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.
- 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.
- 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 technical advice.

- Manual application: mix the bag content (20 kg) with approx. 8 liters of water until lump-free, using an electric drill and an appropriate stirrer.

Application as base coat render (outdoors)

- Spray/apply **weber.dur 140 SLK** onto the prepared substrate and strike off with a stainless smoothing trowel.
- Apply in 1 or 2 layers in the appropriate thickness (approx. 15 mm - 30 mm), depending on type and evenness substrate.
- Rule level the render flush and perpendicular with a straight edge (for ex. aluminium beam), avoiding honeycombs or gaping holes.
- After 20 minutes rule level the render flush and perpendicular with a straight edge (for ex. aluminium beam), avoiding honeycombs or gaping holes.
- After 1 hour the last layer can be roughened with a grid float, whenever a mineral scratch render - range **weber.top** – is applied.
- Highly heat-insulating masonries: apply 1 or 2 layers (min. 15 mm - max. 30 mm).
- High-porosity substrates and/or differently absorbent substrates (mixed masonries): apply 2 layers ”wet-in-wet” (1st layer of approx. 20 mm and 2nd layer up to 10 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 (max. 30 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 15 - 30 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 - 30 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 ceramic wall 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 > 30 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 25 - 30 mm thickness. The use of a metal cloth is mandatory on non-loading substrates.

- Respect the drying time of **weber.dur 140 SLK** (1 day per mm thickness) prior to next applications.
- Leave the surface of **weber.dur 140 SLK** as required for the specific overlay render (finish top coat) to ensure best key (see hereunder).

Application as base coat render (outdoors) 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 140 SLK**.
- In case of thick-layer mineral overlay renders (scratch renders **weber.top**) comb **weber.dur 140 SLK**, using a grid float.
- In case of thin-layer mineral (range **weber.star**) or organic (range **weber.pas**) overlay renders rule level **weber.dur 140 SLK** to a flat and in-plane surface with a wooden float (do not smooth it).

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** onto 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 an 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. 1.5 mm

Colour:
natural grey

Application thickness:
15 mm - 30 mm

Water demand:
approx. 8 liters / 20 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 ceramic coverings: grid float

Storage:
The product can be stored up to 3 months in its original unopened packaging, if kept dry and protected from moisture.

Consumption / yield

15 mm thickness:	approx. 11.5 kg/m²	approx. 1.7 m² / 20 kg

Packagings

Type	Sales unit	Number /euro-pallet
Paper bag	20 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.

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