

weber.floor 4190

Thin calcium sulphate screed

Self-levelling, calcium sulphate-based, levelling compound for thicknesses 10 - 30 mm

Fields of application

As height compensation for different substrates in the renovation of floors in residential and commercial constructions. For thin-layer warm water underfloor heating systems (bonded system) with a covering of heating elements by ≥ 10 mm. Also as topping screed for domestic bathrooms and basement rooms with appropriate waterproofing, but not for wet-duty rooms. In all cases it forms a load-bearing substrate for all common flooring materials. For use indoors.

Description

weber.floor 4190 is a factory-mixed, calcium sulphate-based, polymer-modified and self-levelling mortar.

Main features

- EMICODE EC 1^{PLUS}: very low emission of volatile substances
- CE marking: CA - C30 - F6 (EN 18183)
- fits mechanical mixing and application well
- high flow performance
- resistant under chair castors when used under flooring materials
- low shrinkage and low tension during setting
- very suitable for calcium sulphate screeds and mastic asphalt screeds
- cost-effective for large areas
- heatable after only 6 hours

Technical values

Water demand:	approx. 16% - 19%
Compressive strength (28 days):	> 30 N/mm ²
Flexural strength (28 days):	> 6 N/mm ²
Pot life:	> 20 - < 25 minutes

Application temperature (air):	at +20°C and 65% relative humidity rate ≥ +10°C - ≤ +30°C
Application temperature (substrate):	+10°C - +25°C
Reaction to fire:	class A 1 (EN 13813)
Layer thickness:	10 - 30 mm
Consistency (slump/flow rate):	210 - 250 mm (with flow ring: Ø 68 mm/height 35 mm)
Open to foot traffic:	approx. 8 hours
Open to light load:	approx. 24 hours
CE marking:	CA - C30 - F6 (EN 18183)

Quality control

weber.floor 4190 is subject to a regular quality control by self-monitoring according to EN 13813.

General notes

- Assess the levelling requirements beforehand.
- Arrange dummy joints for special structural features and special room geometry, i.e. wall entry points, doorways, wall recesses. Take over existing movement joints.
- Ensure that application fields do not exceed 60 m²; the optimal ratio between length and width should be 2 : 1.
- For application on floating constructions and heated screeds, all walls and up-stands (pillars, columns etc.) within the floor should be separated with an 8-mm thick insulation foam strip; it must reach downwards from the substrate up to the upper edge of the final covering.
- The final surface must receive a covering, and is not allowed to be left without.
- In case of doubt regarding application, substrate or special structural features, request technical advice.
- Do not add any foreign substances during mixing and application.

Special notes

- Limits of use: only use indoors.
- For installation in thick layers, a maximum slump of 230 mm (4.0 - 4.25 liters of water per 25 kg bag) is recommended.
- For installation on thin-layer warm water underfloor heating systems (bonded system), the slump should not be set below 240 mm (4.5 - 4.75 liters of water per 25 kg bag).

Substrates

- Concrete, cement screeds, calcium sulphate screeds, magnesia screeds, mastic asphalt screeds and thin-layer warm water heating elements (as bonded system or on treadfast insulation boards) are allowed substrates.

Substrate preparation

- The substrate must be load-bearing, dry, solid, and free of dust and all adhesion-impairing contaminants.
- Level out larger unevennesses (> 10 mm) with e.g. the trowel-grade levelling and patching mortar weber.floor 4045, using a flat trowel.
- Use the specific primer in accordance with the prevailing substrate: either the acrylic primer weber.floor 4716 or the 2-comp. solvent-free epoxy resins weber.floor 4710 or weber.floor 4712 (EC 1); oven-dried silica sand should be scattered on the epoxy primers. Observe the technical data sheets.
- In case of rising damp or vapor pressure through the substrate, apply 2 coats of epoxy resin as vapour-barrier, e.g. weber.floor 4712 (EC 1) directly onto the concrete substrate with silica sand spreading over the fresh second coat.
- The substrate preparation must be adapted to the specific job site conditions.

Working instructions

Mixing

- Mechanical application: use the mixing and pumping machine m-tec Duomix 2000, which is authorized by Weber.
- A steady consistency is a pre-requisite for the final properties of the levelling mortar. Monitor the consistency regularly via slump test. Take mixed material in the 1.3 liter tin, pour it into the flow ring and measure the slump (210 - 250 mm) on the flow table. The mortar must not show any bleeding.
- For optimal application the whole length of hoses should be at least 40 meters.
- Manual application: mix with max. 4.75 liters of water per 25 kg bag for 1 - 2 minutes until lump-free, using an electric drill and an appropriate stirrer (for ex. weber.sys Rührpaddel no. 3).

Application

- When the material is pumped, limited working sections must be determined, in order to ensure the full workability of the product (mixing, levelling and smoothing) within its pot life. Therefore, the width of each working section should not exceed 6 - 8 meters.

- If the specified width is exceeded, use the self-bonding foam strip weber.floor 4965 in order to form bays and stop ends.
- Smooth and de-aerate the fresh mortar without delay either with the notched blade scraper weber ABS Schwedenraker in 30 cm width (for angles and small surfaces) and in 60 cm width (for larger surfaces) which will assist the self-levelling process, or with the flat rake weber Großflächenraker (without notched blade) for smoothing works at a shallow angle. If necessary, use a spike roller.
- In case of layer thickness ≥ 20 mm, use the wobbling bar weber Schwabbelstange; first lengthwise and strongly, then crosswise and somewhat more easily. Such wavelike movements bring a good levelling and aerating effect.
- In case of thin-layer warm water underfloor heating elements (bonded system), observe a minimum covering of the elements of 10 mm and wait for sufficient follow-up time (until the product has flowed through the heating elements) before smoothing the surface.
- Clean mixing equipment and tools with water (fresh product). Hardened material can only be removed mechanically

Aftercare

- Protect freshly installed surfaces from draughts, and the direct effects of sun light and heat.
- Ventilation is necessary as soon as the product is open to foot traffic, and avoid draughts.
- The job site temperature must be at least +10°C (better +15°C), during and 7 days after application.
- Pre-heating can begin after approx. 6 hours.

Readiness for covering

- The final surface of weber.floor 4190 is ready for floor covering, when a residual moisture content of 0.5 CM-% (by weight) is reached, i.e. between 1 and 5 days, depending on climatic conditions and layer thickness. For a layer thickness of 1 cm: approx. 1 week. For every further cm additionally wait 2 weeks more for drying time.
- Heated underfloor constructions can generally be covered after completion of functional heating process. Request technical advice for more information.
- Before laying the floor covering, a residual moisture check must be carried out with a CM device (carbide hygrometer) as a rule.
- The CM measurement is carried out with a net sample weight of 50 g and it is read 10 minutes after break of the bottles.

Practical information

Water demand: max. 4.75 liters / 25 kg

Tools:

Mixing pump m-tec Duomix 2000, electric drill + stirrer weber.sys Rührpaddel no. 3, slump test tools (tin, ring and table), wobbling bar weber Schwabbelstange, notched blade scraper weber ABS Schwedenraker in 30 cm width (for angles and small surfaces) and in 60 cm width (for larger surfaces), flat rake weber Großflächenraker (without notched blade), flat trowel, spike roller

Storage:

The product can be stored for at least 6 months in its original unopened packaging, if kept dry and protected from moisture.

Consumption

per mm layer thickness: approx. 1.8 kg/m²

Packagings

Type	Sales unit	Number / euro-pallet
Plastified bag	25 kg	42 bags