

weber.floor 4491 turbo

Fast-drying calcium sulphate flow screed C30-F5

Fast-drying, calcium sulphate-based flow screed, also as heated screed

Fields of application

As fast-drying screed on separating membrane, on insulation boards, on underfloor heating and on hollow space floors/raised floors in residential and commercial constructions and in office areas.

Description

weber.floor 4491 turbo is a factory-mixed and fast-drying calcium sulphate-based flow screed mortar with a grain size of 0 - 4 mm.

Main features

- EMICODE EC 1 R ^{PLUS}: very low emission of volatile substances
- CE marking: CA - C30 - F5 (EN 13813)
- with flow performance
- low tension and low shrinkage during setting
- allows large working sections up to 200 m²
- ready for overlay with flooring materials after 7 days
- reduces building moisture
- suitable on underfloor heating
- open to light pedestrian traffic in very short delay

Technical values

Water demand:	approx. 15%
Compressive strength (28 days):	> 30 N/mm ²
Flexural strength (28 days):	> 5 N/mm ²
Pot life:	approx. 25 - 35 minutes at +20°C and 65% relative humidity rate
Application temperature (air):	≥ +5°C - ≤ +30°C
Fresh mortar density:	approx. 2.2 kg/dm ³

Dry bulk density:	approx. 2.1 kg/dm ³
Reaction to fire:	class A 1fl (EN 13813)
Layer thickness:	35 - 75 mm
Consistency (slump):	40 - 42 cm (with 1.3 liter flow tin)
Open to foot traffic:	approx. 10 hours
CE marking:	CA - C30 - F5 (EN 13813)
Thermal conductivity:	approx. 1.2 W/mK

Quality control

weber.floor 4491 turbo is subject to a regular quality control by self-monitoring according to EN 13813.

General notes

- Follow the national guidelines/standards; if not issued and if necessary, refer to the norm DIN 18560 (relating to the load-dependent thicknesses for calcium sulphate flow screeds).
- Arrange dummy joints for special structural features and special room geometry, i.e. wall entry points, doorways, wall recesses. Take over movement joints.
- Seamless surfaces of up to 200 m² can be installed; the optimal ratio between length and width should be 2 : 1.
- Pay attention to separated heating circuits; expansion joints must be installed between separately geared heating circuits and cold-hot zones.
- For application on floating constructions, walls and any upstands (pillars, columns etc.) within the floor should be separated with a thick insulation foam strip \geq 10mm; it must reach downwards from the substrate up to the upper edge of the final floor covering.
- For side lengths > 8 meters, a double edge insulation foam strip must be installed.
- In case of doubt regarding application, substrate or special structural features, request technical advice.

Special notes

- The product develops heat during the setting process.
- The use of pouring trestles is not permitted.
- In case of use of large-format strip parquet (> 30 cm) or solid parquet with a high risk of dimensional change is to be laid and if no MS adhesive (weber.floor 4830) or if no 2-comp. PU adhesive (e.g. weber.floor 4838) is used, the 2-comp. epoxy primer weber.floor 4712 (EC 1) must be applied as an intermediate coat.

- In case of rising damp, 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.
- Do not add any foreign substances during mixing, pumping and application.

Substrates

Separating membrane, insulation boards, heated floors and hollow space floors/raised floors are allowed substrates.

Substrate preparation

- When used on separating membrane or insulation boards, the load-bearing substrate must be clean and comply with the national rules/standards; if not issued or if necessary, refer to the norms DIN 18560 (load-dependent thicknesses for calcium sulphate flow screeds) and DIN 18202 (flatness tolerances).
- Level out larger unevenness and height differences due to pipes laid on the floor beforehand, for ex. with the cement-based lightweight levelling compounds weber.floor 4515/4520.
- The substrate preparation must be adapted to the specific job site conditions.

Working instructions Mixing

- The screed mortar can be processed with all plastering machines and mixing pumps suitable for flow screeds.
- The diameter of the pump hoses must be at least 40 mm.
- Before pouring the hoses should be pre-lubricated with a slurry of anhydrite binder and water prior to the pumping of the first mixture. Afterwards this mix is disposed of in a container as waste. Do not use it for the screed mortar.
- A steady consistency is a pre-requisite for the final properties of the screed mortar. Monitor the consistency (slump test) regularly. A steady consistency is a pre-requisite for the final properties of the screed mortar. Take mixed material in the 1.3 liter flow tin and measure the slump (40 - 42 mm).

The mortar must not show any bleeding.

Application

- Adjust the intended screed thickness by using levelling strips/screed gauges and by creating a meter crack.

- The material is pumped onto the floor and evenly distributed by swinging the casting hose back and forth in order to obtain a homogeneous layer.
- Once the right height is reached, the cast surface is immediately beaten through, using 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.
- Clean mixing equipment and tools with water (fresh product). Hardened material can only be removed mechanically.

Aftercare

- Protect freshly installed surfaces from draughts for 2 days and avoid strong sun radiation.
- Do not use forced drying (de-humidifiers).
- Once the floor is ready for covering, but at the latest after 6 weeks, the floor covering must be laid; if not possible, take suitable measures for preventing the screed from over-drying by applying one coat of the epoxy resin weber.floor 4712 (EC 1) up to saturation.
- Function heating at +25°C can begin after 5 days following the application; after 2 days (i.e. 7th day) the heating is switched off.
- Normal heating can only start after 28 days following the application, and after the floor covering has been laid.

Readiness for covering

- The final surface of weber.floor 4491 turbo is ready for covering, when a residual moisture content of < 1.8 CM-% (by weight) - in general after 7 days after completion of function heating - is reached.
- The residual moisture check must be carried out by a CM device (carbide hygrometer) as a rule.
- The CM measurement is done on a sample with a net weight of 50 g and is read 10 minutes after break of the bottles.

Practical information

Water demand: approx. 3.75 liters / 25 kg

Tools:

All plastering machines and mixing pumps suitable for flow screeds, electric drill + stirrer weber.sys Rührpaddel no. 3, 1.3 liter tin for slump test, flat trowel, wobbling bar weber Schwabbelstange, screed gauges, wooden float

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 cm layer thickness: approx. 18.0 kg/m²

Packagings

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