Technical Data Sheet

weber.plan 815

Quick-setting screed cement binder

Very low-shrinkage, quick cement binder for screeds mixed on construction sites for indoors and outdoors

Fields of application

weber.plan 815 is a special cement for the production of quick-setting screed and repair mortars.
For use as bonded screed, screed on separating membranes or insulation boards.
For the renovation and refurbishment sectors.
For use as heated screed.
Also for use in wet-duty rooms under bonded waterproofing systems.
For indoors and outdoors.

Description

weber.plan 815 is a hydraulic-, quick-setting screed cement.

Composition

Hydraulic-, quick-setting screed cement

Main features

- multi-use
- fast hardening
- quickly ready for overlay with flooring materials
- particularly dimensionally stable
- quickly ready for heating
- suited for pre-heating temperatures up to +50°C
- easy application

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Technical values

Pot life:	approx. 30 minutes
Open to foot traffic:	approx. 4 hours
Application temperature:	+5°C - +25°C
Flexural strength:	approx. 5 N/mm²
Compressive strength:	approx. 35 N/mm²
Mixing ratio:	1 : 4 parts by weight gravel sand (grain size 0 - 8 mm)
Reaction to fire:	class A 1 (EN 13 813)
Chromate content:	low content (EC regulation 1907/2006)

Quality control

weber.plan 815 is subject to a regular quality control by self-monitoring.

General notes

- Comply with the national rules/standards; if not issued or if necessary, refer to the norms DIN 18 560 and DIN 18 353.
- All characteristics mentioned in this data sheet are based on a temperature of +23°C without draught and a relative humidity rate of 50%.
- Higher temperatures and lower humidity accelerate, whilst lower temperatures and higher humidity delay the setting process.
- Protect mixed material from rapid water evaporation and draughts or similar during the hardening phase.
- Mix weber.plan 815 with gravel sand 0 - 8 mm (according to EN 13139), with a grading curve A/B8 (according to DIN 1045-2 and EN 206) and a content of finest particles (< 0.063 mm) of max. 3 %. Comply with the national norms/guidelines relating to appropriate grading curve of aggregates; if not issued, refer the pre-said norms.
- The water/cement ratio should not exceed 0.45, taking into account the moisture content of the aggregates.

Special notes

- Do not mix the special cement with other cements or binders.
- Screeds with weber.plan 815 must not be exposed to direct weathering outdoors and must always be covered.
- In case of application outdoors (for ex. on balconies) or in wet-duty rooms special measures for waterproofing should be taken, for ex. with weber.tec 824/827/827 S/Superflex D 2 or weber.xerm 844 (bonded layers).
- In the case of bonded screeds, the drying of the overall construction must be taken into account before ceramic coverings are applied.
- The values for compressive and flexural strengths after 28 days mentioned in this data sheet refer to EN 13892-2 for a mixing ratio of 1 : 4 parts by weight.
- **Minimum screed thickness**: 30 mm when used as bonded screed / 40 mm when used on separating membrane / 45 mm when used on insulation boards
- **Maximum screed thickness:** in all cases 60 mm, except 80 mm on underfloor heating

Substrate preparation

- In case of use as bonded screed, the substrate must be sufficiently load-bearing, clean, dry, frost-free, free of oil and grease, dimensionally stable and free of adhesion-impairing substances.
- Remove loose or flaking mortar and paint residues.
- Smooth, mineral substrates must be roughened mechanically by grinding sandblasting or shot-blasting.
- When used as a bonded screed, the surface tensile strength of the substrate must be > 1.5 N/mm^2 for industrial floors and > 1.0 N/mm^2 for residential floors in order to provide a long-term bonding.
- Also in this case pre-wet the concrete surface intensively; avoid puddle formation and allow to dry until dull-moist, and apply a bonding layer of weber.plan 815. Bonding layers with other products are not suitable.
- The substrate preparation must be adapted to the specific job site conditions.

Working instructions

Bonding layer in case of use as bonded screed

- Mixing for the bonding layer: pour approx. 7 - 8 liters of water in a suitable bucket and stir in a 25 kg bag of weber.plan 815 with an electric drill and an appropriate hand mixer. Mixing time approx. 3 minutes until soft brush (slurry-like) consistency.
- Apply the bonding layer, using a stiff broom.

Mixing

- Standard recipe for a 200-liter mixture (screed with performance CT-C35-F5): 300 kg aggregates and 75 kg (= 3 bags) weber.plan 815
- Fill the mixing vessel with a part of the aggregates and the gauging water, and then add weber.plan 815. Add the remaining aggregates step-by-step up to the useful content and pour water up to the required consistency. Mixing time: 2 - 3 minutes.
- Mixing in case of very large surfaces: use all conventional screed mixers, e.g. Mixokret, Estrich-Boy.
- Mixing in case of medium-size surfaces: use mixing drums, forced-action mixers or the m-tec D20 mixer.

Application

- All foreign screed residues must be removed from the machine and hoses before processing.
- The hoses should be pre-lubricated with a slurry of weber.plan 815 and water. Afterwards this mix is disposed of in a container as waste. Do not use it for the screed mortar. Do not use slurries from other cements or binders to lubricate the hoses.
- Adjust the intended screed thickness by using levelling strips/screed gauges and by creating a meter crack.
- Screeds with addition of weber.plan 815 are laid using the same techniques as for conventional cement screeds. However, consider that the working and smoothing times of weber.plan 815 are shorter than those of conventional cement screeds.
- Mixing, spreading of mix in the required thickness, levelling, compacting and smoothing works (section by section) must be carried out in rapid sequence. The size of each screed section should allow the completion of all works within the pot life (approx. 30 minutes).
- Higher temperatures shorten, whilst lower temperatures extend the pot life.
- When used as bonded screed, the mortar is installed “wet-on-wet” onto the fresh bonding layer. Already dried bonding layers must be removed.

- Smoothing work must be completed within the pot life of approx. 30 minutes. Higher surface strengths can be achieved by mechanical smoothing (power trowel).
- 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 strong sunlight and heat.
- Uneven setting and drying leads to cracks; in the case of use on separating membranes or on insulation boards, they lead to disintegration of the screed.

Readiness for covering

- The final surface of screeds with weber.plan 815 is ready for floor covering, when a residual moisture content of < 3.0% by weight after 24 hours and < 2.0% by weight after 3 days at +20°C and 65% relative humidity rate is reached.
- Immediately before laying the floor covering, the moisture content must be measured with a carbide hygrometer as a rule.
- The measurement is done on a sample with a net weight of 50 g and it is read 10 minutes after break of the bottles.
- After 3 days following the application carry out a function heating in accordance with the weber.plan 815 heating record. A ready-for-laying heating is not necessary. For full information request technical advice.

Practical information

Colours:
grey

Tools:
All conventional screed mixers (Mixokret, Estrich-Boy), mixing drum, forced-action mixer, m-tec D20, electric drill + hand mixer, stiff broom (for bonding layer), screed gauges, levelling beams, power trowel, wooden float

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

Consumption

per cm layer thickness: (mixing ratio 1 : 4 parts by weight)	approx. 3.7 kg/m²
per cm layer thickness: (mixing ratio 1 : 5 parts by weight)	approx. 3.1 kg/m²

Packagings

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