

weber.plan 816

Quick-setting screed mortar

Quick-setting mortar for producing bonded and heated screeds on a separating membranes or on insulation boards



Product profile

- for residential, property and commercial construction
- for indoor and outdoor use
- for underfloor heating in residential buildings

Product advantages

- CT-C40-F6 according to DIN EN 13813
- walkable after 4 hours
- fast heat-up capability

Product description

weber.plan 816 is a hydraulic, quick-setting screed mortar.

Fields of application

weber.plan 816 is a ready-to-use dry mortar for producing cement screeds in residential, industrial and retail constructions, as well as for renovation and refurbishment projects. It is suitable for use on balconies, terraces, in garages and basements. It can be used as a bonded screed layer, on separating membranes and insulation boards, and as a screed for underfloor heating under all common indoor and outdoor floor coverings.

Product features

- fast covering readiness
- particularly dimensionally stable
- Low shrinkage and low stress

Consumption / yield

per mm layer thickness approx. 1.9 kg/m²

Technical values

Application tool	Smoothing trowel, rubber float
Compressive strength (28 days)	40 N/mm ²
Flexural strength (28 days)	6 N/mm ²
Water consumption (absolute)	2 l/25 kg
Application time	30 minutes
Application temperature air	5 - 25 °C
Layer Thickness	30 - 80 mm
Open to foot traffic	4 hours
Building material class [according to DIN 4102-1]	A1
Base color	grey
Composition	hydraulic, quick-setting special mortar with selected aggregates

Storage

Shelf life min. 6 months

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Storage conditions

In the original unopened packaging, dry and protected from moisture.

Application

Surface preparation

- In the case of use as a bonded screed, the substrate must be sufficiently load-bearing, clean, dry, frost-free, free of oil and grease, dimensionally stable, and free of substances that could impair adhesion. Any loose or flaking mortar and paint residues must be carefully removed.
- Smooth, mineral substrates must be mechanically roughened by grinding, sandblasting or shot-blasting.
- When used as a bonded screed, the surface tensile strength of the surface must be $> 1.5 \text{ N/mm}^2$ for industrial use and $> 1.0 \text{ N/mm}^2$ for residential use to ensure durability.
- The edge strips must extend from the load-bearing surface to the upper edge of the covering and be at least 10 mm thick.
- In the event of rising damp, suitable waterproofing measures must be taken in accordance with DIN 18533 Part 3.
- To prepare a bonding mortar for bonded screeds, mix the styrene-butadiene-based dispersion **weber.ad 785** with water at a ratio of 1:2. Then, mix **weber.plan 816** with the resulting mixture to achieve a slurry-like consistency without lumps. Brush the mixture thoroughly and completely into the surface. Apply the screed mortar "wet-on-wet" onto the fresh bonding layer!

Application

Application:

- Mix the screed mortar in either a mixing drum or a forced-action mixer. Smaller quantities can be mixed using a double-helix agitator. Do not mix with other cements!
- Apply the finished mixture to the prepared surface, spread to the intended layer thickness and level out.
- Smoothing work must be carried out within the approximately 30-minute pot life.

Post-treatment:

- Protect screed from evaporation of water (e.g. due to excessive room temperature, sunlight, draughts) and frost. Uneven setting and drying can lead to cracking and cupping.
- The screed is generally ready for covering after 72 hours. If it is not covered within 4 weeks of being ready for covering, it must be protected against overdrying.

Readiness for covering:

- The final surface of **weber.plan 816** is ready for covering, when a residual moisture content of $< 3\%$ by weight after 24 hours or $< 2.0 \text{ CM-\%}$ by weight after 3 days at $+ 20 \text{ }^\circ\text{C}$ and relative humidity 65% is reached.
- Before laying the surface covering, a residual moisture measurement must always be carried out using the carbide hygrometer in accordance with BEB regulations. Screed sample: net weight of 50 g, reading after 10 minutes. Functional heating after 3 days according to **weber.plan** heating protocol.
- Low temperatures, high humidity, excessive water content, large layer thicknesses, and other unfavourable site conditions can delay drying.

General notes

The norms of DIN 18 560 and DIN 18 353 must be observed.

All the characteristics mentioned in this data sheet are based on an ambient temperature of 23°C , in the absence of draughts, and a relative humidity of 50%.

Higher temperatures and lower humidity accelerate the setting process, while lower temperatures and higher humidity delay it.

During the hardening phase, protect the mixed material from excessive water loss and draughts.

Do not use material that has already stiffened.

weber.plan 816 is subject to regular quality control through self-monitoring.

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Special notes

Do not mix the special cement with other cements or binders.

Screeds made with **weber.plan 816** must not be exposed to direct weathering outdoors and must always be covered. When used outdoors or in damp rooms, a suitable bonded waterproofing must be applied, e.g. **weber.tec 824**, **weber.xerm 844** or **weber.tec 827/827 S**.

For use in areas with permanent water exposure (e.g., swimming pools), we recommend **weber.plan 819** or **weber.rep 753**.

Minimum installation thickness: 30 mm for bonding, 40 mm as a separating layer, 45 mm on thermal insulation.

Maximum installation thickness: 60 mm, on underfloor heating: 80 mm.

Packaging units

Type	Unit	PU
sack	25 kilogram	42 sacks / palett