

weber.xerm 844

2-comp. waterproofing, tile adhesive and de-coupling system

Highly-flexible reactive waterproofing (CM 01P) and adhesive for tiles and slabs (C1 E / S2)

Fields of application

weber.xerm 844 is a highly-flexible, fast-setting, reactive setting, 2-component system consisting of tile adhesive and waterproofing. After hardening it is waterproof, frost-resistant, sulphate-resistant, UV- and ageing-resistant.

Suitable as bonded waterproofing under ceramic tiles and slabs in bathrooms and wet-duty rooms according to water loads **W0-I up to W3-I** (DIN 18534), on balconies and terraces (DIN 18531-5) and in swimming pools and water tanks (DIN 18535) as described hereafter:

Low water load (W0-I): walls of domestic bathrooms beyond shower areas / walls of domestic kitchens / floors of domestic rooms without drain, for ex. in kitchens, utility rooms, guest toilets in case of moisture sensitive substrates.

Moderate water load (W1-I): walls of domestic bathrooms above bathtubs and in showers / floors of domestic bathrooms without or with drain without high water load from the shower area / floors of domestic rooms with drain in case of moisture-sensitive substrates.

High water load (W2-I): walls of showers in sports facilities and industrial premises / walls and floors in sports facilities and industrial premises in case of moisture-resistant substrates.

Very high water load (W3-I): very high exposure to water on surfaces with very frequent or long-lasting exposure to spray water, service water or water of intensive cleaning operations, for ex. pedestrian areas around swimming pools / showers and shower rooms in sports facilities and industrial premises / walls and floors in commercial kitchens, laundries and breweries with chemical spillage.

In addition, the post-applied coverings can be installed on the previously waterproofed surface with the same material.

As waterproofing material and as tile adhesive in one product, it hardens with low internal stress and minimum cracking.

Due to its weather-independent fast curing and its smooth consistency and easy application **weber.xerm 844** offers the maximum safety against moisture damages for constructions subject to high water loads.

Can be also used as de-coupling layer on critical substrates, among others on “young” cement screeds between 3rd and 7th day after their application.

For use indoors and outdoors.

Description

weber.xerm 844 is a factory-mixed, 2-component, waterproofing and adhesive system. With official approval (Germany). It fulfills the European standard EN 12004 (classified as **C1 E / S2**) and EN 14891 (CM 01P)

weber.xerm 844 is a factory-mixed, flexible thin-bed tile adhesive of class **C1 TE / S2**

(“improved deformable cement-based adhesive with reduced slip and extended open time”) according to EN 12004.

According to EN 14981 its designation is CM (= liquid waterproof cement-based product), 01 (= improved crack-bridging at low temperatures of -5°C) and P (= resistant to contact with chlorinated water, i.e for use in swimming pools). With official approval (Germany).

Composition

Polymer-modified, hydraulically-setting special mortar with selected fillers

Main features

- **EMICODE EC 1 PLUS**: very low emission of volatile substances as bonded waterproofing coating
- class **C1 E / S2**: C1: pull-off strength $\geq 0.5 \text{ N/mm}^2$ in all storage conditions – E: extended open time ≥ 30 minutes – S2: deformation $\geq 5 \text{ mm}$
- tile adhesive and waterproofing compound in one product
- weather-independent drying through reactive setting, even under air exclusion
- fast-setting, even at cooler temperatures
- open to pedestrian traffic and for grouting works after 4 hours
- time- and cost-saving processing
- as 1 mm-thick decoupling-membrane on critical substrates
- as moisture protection on top of calcium-sulphate screeds
- prevents from efflorescence and frost damages
- low capillarity
- particularly easy and smooth workability
- no necessary aftercare treatment
- for wall and floor coverings with high water load
- particularly convenient for balconies and terraces

- for shower rooms and flush-floor showers
- fulfills the KSW recommendations for swimming pools (Germany): hence for tile fixing in swimming pools and in all areas permanently under water
- for use indoors and outdoors

Technical values

Application temperature:	5°C - 30°C
Pot life:	approx. 45 minutes (uncut); approx. 30 minutes (cut with silica sand)
Delay between layers(floor/wall):	approx. 90 minutes
Open to foot traffic (for tile fixing):	approx. 4 hours
Open for grouting works:	approx. 4 hours
Open to full service:	approx. 3 days
Pull-off strength after dry storage/heat aging/water immersion/freeze thaw cycling:	≥ 0.5 N/mm ² (EN 12004)
Watertightness:	1.5 bar
Resistance to mechanical loads:	7.5 KN/mm ²
Impact sound level reduction (DIN 4109):	up to 7 decibels
Density of mixed compounds:	approx. 1.05 kg/dm ³
Class of reaction to fire:	E (EN 12004):
Giscode:	low content (EC regulation 1907/2006)
Clean-up:	water (fresh product); only by mechanical means and with thinner weber.sys 992 (dry product)

Quality control

weber.xerm 844 is subject to a regular internal quality control according to EN 12004.

General notes

- All characteristics mentioned in this data sheet are based on a temperature of 23°C, without draught and a relative humidity rate of 50%.
- Lower temperatures slow down, higher temperatures accelerate the reaction process
- Do not use material that has already stiffened.

- Comply with the national standards and/or guidelines relating to waterproofing works under tiles and tile fixing works, for ex. “Guidelines for Solid-bonded Waterproofing systems under Tiles” (German Technical Building Rules), EN 14891, “Liquid-applied water-impermeable products for use beneath ceramic tiling bonded with adhesive” and the leaflets of ZDB (Central Association of German Construction Industry); if not issued and if necessary, request technical advice.
- Existing structural joints must be covered and waterproofed with the sealing tape **weber.tec 828 DB 75** or **DB 150** and taken over in the tile covering in a congruent manner.

Special notes

- Do not use the material on frozen substrates, at freezing temperatures or high temperatures (above 30°C substrate temperature).
- Protect the fresh waterproofing layer from direct sunlight, frost and rain.
- After 3 days, **weber.xerm 844** is permanently waterproof in underwater areas.
- The waterproofing layer is not suitable for direct use; it must be covered with an appropriate protective layer (screed, tiles or natural stones).
- As bonded waterproofing system it fulfills the standard EMICODE EC 1^{PLUS} (very low emission of volatile substances). For a low-emission tile fixing use the temperature-independent setting flexible adhesive **weber.xerm 859 F** or the multi-use flexible tile adhesive **weber.xerm 861**.

Substrates

- **Allowed substrates for use as waterproofing:** all concrete (at least 28 days old) and masonry surfaces with fine-pored surfaces, such as cement and lime-cement renders of mortar group CS II (compressive strength ≥ 2.0 N/mm²), CS III (3.5 - 7.5 N/mm²) and CS IV (≥ 6 N/mm²) in accordance with EN 998-1, cement screeds, old ceramic coverings. Also suitable for only use indoors: gypsum-based substrates, cement and anhydrite screeds, old paints.
- **Not allowed substrates for use as waterproofing:** floor acoustic insulation membranes.
- **Following critical substrates are allowed:** concrete > 20 days old, calcium sulphate screeds, “young” cement screeds (between 3rd and 7th day), wooden substrates (timber planks, chipboards, OSB boards), mixed substrates with old setting or tension cracks or substrates covered with composite materials and hence different thermal expansion coefficient.
- **Allowed substrates for use as adhesive for tiles and natural stones:** similar like for use as waterproofing; in addition, acoustic membranes/boards **weber.sys 830/832** are also allowed.
- **Allowed covering materials:** all common ceramic tiles, porcelain stoneware, split tiles, brick tiles, hand-moulded bricks, mosaics, non-moisture sensitive natural stones and also porcelain tiles in all sizes for interior use and up to 60 x 60 cm for exterior use; for larger sizes only upon approval of **Weber** (Department for Technical Services).

- **Not allowed covering materials:** shiny or moisture-sensitive natural stones, glass mosaic and glass tiles.
- For full information relating to allowed substrates and tile coverings refer to the **Weber** chart “**Overview Tile Adhesives**” and to the **Weber** flyer “**The 3 in 1 innovation: Waterproofing, tile fixing and de-coupling**”.

Substrate preparation

- Like for all bonded waterproofing systems, the substrate must be sufficiently load-bearing, clean, dry, frost-free, free of oil and grease, dimensionally stable, and free of all adhesion-impairing particles and substances.
- Carefully remove loose or flaking mortar and paint residues.
- Absorbent substrates: use the primer **weber.prim 801**.
- Non-absorbent substrates: use the bonding primer **weber.prim 803**.
- PVC connections: roughen and apply **weber.xerm 844** in a thin-layer.
- Old ceramic coverings: use the bonding primer **weber.prim 803**. Verify adequate bonding via a preliminary test; in case of inadequate bonding, it may be necessary to roughen by mechanical means.
- Aluminium, copper and zinc: degrease with the thinner **weber.sys 992** and cover with the flexible waterproofing epoxy resin (trowel-grade) **weber.tec 827 S**. Scatter the pre-said silica sand (0.7 - 1.2 mm) up to saturation over the fresh resin layer; after curing vacuum off excess silica sand and apply **weber.xerm 844**.
- Other metals: degrease with the thinner **weber.sys 992** and apply **weber.xerm 844** directly.
- The substrate preparation must be adapted to the specific job site conditions.

Working instructions

Mixing

- The amounts of liquid and powder are delivered pre-mixed and adjusted to each other. Mix the components A and B in a ratio of 1 : 1 part by weight.
- Mix with a high-performance electric drill (max. 800 rpm/min.) and the stirrer **weber.sys** Rührpaddel no. 8 during 2 - 3 minutes, until a homogenous, lump-free and slurry-like mortar is achieved.

Application as waterproofing layer

- Areas with corners, expansion joints, butt joints and movement joints: use the waterproofing system **weber.tec 828**. First apply one coat of **weber.xerm 844** along the concerned areas; afterwards the system components (lip-type seal around pipes **weber.tec 828 MD** or **828 MDK** and prefabricated inner and outer corners **weber.tec 828 DA** or **828 DI**) are pressed onto the fresh coat of **weber.xerm 844**. Thereafter the sealing tape **weber.tec 828 DB G** (width 12 cm) or **828 DB 150** (width 20 cm) is embedded with an overlap of at least 5 cm in the butt areas. After drying the fleece sides of all system components are coated over (approx. 1 cm over the fleece-free zone) with a second coat of **weber.xerm 844**.
- Porous substrates (concrete, screeds, renders): apply a thin scratch layer of **weber.xerm 844** with a flat trowel at a rate of approx. 0.5 kg/m² prior to waterproofing works, in order to prevent blistering. Mixing ratio for scratch layer: 2 parts by volume silica sand (0.1 - 0.5 mm) and 1 part by volume **weber.xerm 844**.
- **weber.xerm 844** can be used either in 1 coat (waterproofing and tile fixing with the specific notched trowel **weber.sys Abdicht- & Verlegeglätter** or in 2 coats (1 coat for waterproofing and 1 coat for tile fixing) or in 3 coats (2 coats for waterproofing of 1 mm each and 1 coat for tile fixing).
- In case of application of **weber.xerm 844** as waterproofing in 2 coats (one separate coat as tile adhesive) apply the material intensively and uniformly, using a smoothing trowel, a block brush or a deck brush, so that the substrate is fully covered. The 2nd layer is applied when the 1st one cannot longer be damaged. Use an appropriate notched trowel for the separate coat as tile adhesive.
- A total layer thickness of 2 mm (either 2 mm in one layer or 2 layers of 1 mm each) must be achieved at every point of the waterproofing layer(s).
- The application in one coat is only allowed when the ceramic tiles are fixed with **weber.xerm 844** in the buttering-floating method, so as to avoid hollow areas; this application can only be done with a notched trowel.
- The notches of this trowel provide a waterproofing layer of 2 mm-thickness in one go and at the same time a layer of tile adhesive mortar of approx. 2.5 mm-thickness.
- Do not mix **weber.xerm 844** with silica sand for waterproofing works.

Application as tile adhesive

- Let the waterproofing layer(s) dry 4 hours before tile fixing works can begin.
- First apply a thin contact coat of **weber.xerm 844** on the substrate with a smoothing trowel.
- Apply the material as tile adhesive at an angle of 45° - 60° with a common notched trowel which is appropriate to the type of the ceramic tiles.
- Always use the buttering-floating method for fixing tiles on balconies and in swimming pools. This method reduces the risk of hollow areas under tiles.

- For laying on walls the consistency must be adjusted by adding the pre-said silica sand (0.1 - 0.5 mm) in a mixing ratio of maximal 1 : 1 part by weight.
- Mortar residues must be removed when fresh with a wet sponge (for ex. **weber.sys Fugenwaschschwamm**).
- Clean equipment with water immediately after use. Remaining stains and hard residues on tiles and tools can be removed only by mechanical means with addition of the thinner **weber.sys 992**.
- Let the tile adhesive dry at least 4 hours; afterwards grouting can be executed with the cement-based grout mortars **weber.fug 873**, **weber.fug 875 F** or **weber.fug 877** (depending on tile type).

Application as de-coupling layer

- After the primer or the scratch layer is dry, lay the mesh **weber.sys 835** with butt joints (without overlapping) within the adhesive bed for improving the mechanical characteristics of **weber.xerm 844** on critical substrates, like wooden substrates (timber planks, chipboards, OSB boards), mixed substrates with old setting or tension cracks or substrates with composite materials and hence different thermal expansion coefficient etc.
- Mortar residues must be removed when fresh with a wet sponge.
- Clean equipment with water immediately after use. Remaining stains and hard residues on tiles and tools can be removed only by mechanical means with addition of the thinner **weber.sys 992**.

Practical information

Colour:
blue-grey

Tools:
Electric drill stirrer **weber.sys** Rührpaddel no. 8, flat trowel for scratch layer, **weber.sys Abdicht- & Verlegeglätter** (only for application in one layer), smoothing trowel, block brush or deck brush (application in 2 layers for waterproofing), smoothing trowel notched trowel (application for tile fixing), sponge **weber.sys Fugenwaschschwamm**

Drying time:
max. 4 hours as waterproofing layer;
max. 6 hours as tile adhesive;
full service after 3 days in swimming pools

Storage:
The product can be stored at least 12 months in its original unopened packaging, if kept dry and frost-free. Frost will destroy the liquid component. After thawing it is not allowed to be used.

Consumption / yield

As scratch layer:	approx 0.5 kg/ m ²
As solid-bonded waterproofing layer	approx. 2.5 kg/m ² in 2.0 mm thickness (after drying)
As tile adhesive	approx. 2.6 kg/m ² with 10 mm-notched trowel; approx. 4 kg with medium-bed trowel
As waterproofing layer and tile adhesive (in one operation)	approx. 4.9 kg/m ² with specific trowel weber.sys Abdicht- & Verlegeglätter

Packagings

Type	Sales unit	Number / euro-pallet
Plastic bucket (= 1 bag of 3 kg liquid 1 bag of 3 kg powder)	6 kg	60 buckets
Plastic bucket (= 4 bags of 3 kg liquid 4 bags of 3 kg powder)	24 kg	18 buckets

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.