Technical Data Sheet

weber.tec 940 E

Silicone micro-emulsion horizontal damp-proof barrier

Silicone micro-emulsion concentrate for subsequent horizontal waterproofing of masonry against rising damp

Fields of application

As horizontal barrier for the subsequent cross-sectional waterproofing of masonry against rising damp.
Suited for masonries with a moisture content up to 95%.
Can be injected in 3 different methods: by injection at low-pressure through boreholes / by pouring into the boreholes / by injection through pre-injected boreholes with stabilizing mortar in case of masonries with several cavities (“wet-in-wet” injection method).
weber.tec 940 E largely prevents salt migration into the subsequent damp-proof render after the renovation works.
For use indoors and outdoors, depending on the specific application.

Description

weber.tec 940 E is a concentrated silicone micro-emulsion, to be mixed with water for use. With test certificate according to the WTA leaflet 4-10 “Injection methods with certified injection materials against capillary rising moisture” (WTA =International Association for Science and Technology of Building Maintenance and Monuments Preservation).

Composition

Silane/siloxane concentrate.

Main features

- efficient without activator, even in case of high moisture contents
- micro-emulsion penetrates into the finest capillary pores
- no formation of salts that are harmful to the masonry
- highly reactive concentrate
- particularly suited for the pressure injection methods
- also convenient for the ”wet-in-wet” injection method

- rapid hardening
- shelf life of min. 16 months after dilution with water
- for use indoors and outdoors

Technical values

Application temperature:	> +5°C
Density:	approx. 0.99 kg/dm³
Consistency:	low viscosity
Mixing ratio:	1 : 9 - 1 : 14 parts by volume with water

Quality control

weber.tec 940 E is subject to a regular quality control.

General notes

- Drying of the walls above the injection zone up to their balance moisture can only be obtained, if there are no dense wall coverings (remove renders and paints) and if there are sufficient drying conditions in the treated rooms.
- Additional measures may have to be taken; either a functional vertical waterproofing on exterior side of basement walls (for ex. the 2- comp. lightweight bitumen waterproofing thick coating **weber.tec Superflex 10**) or on the interior side of the walls (for ex. the 2-comp. reactive waterproofing slurry **weber.tec Superflex D 2**) and/or a damp-proof render (for ex. **weber.san 953**, **san 954** or **san 958**).
- When drilling holes, take care that at least one horizontal joint is injected via a butt (vertical) joint.
- For masonry thicknesses over 60 cm and wall corners, drill holes from both sides.
- In case of masonries with a large number of cavities, the resin should be processed using the patented “wet-in-wet” injection method. For such masonries the first operation is to inject the borehole suspension **weber.tec 942** (highly sulphate-resistant and low shrinkage cement-based mortar) through suitable packers prior to subsequent injection of **weber.tec 940 E**. This method creates a stabilized and solid injection area for the injection works and increases the alcalinity of this area which allows the resin to react.
- For application comply with national standards and/or guidelines; if not issued and if necessary, refer to the above-mentioned WTA leaflet 4-10.

Special instructions

- Do not add foreign substances during mixing and application.
- Observe the **Weber** application tip "Basement waterproofing - Old buildings - Internal renovation of basements with flexible waterproofing mortars".

Substrate preparation

- Drill holes at a distance of approx. 10 - 12 cm horizontally resp. at an angle of inclination of max. 45° into the masonry joint or the brickwork.
- In case of masonries with a high moisture content (> 75%) drill holes in two rows, with a spacing of max. 15 cm.
- Do not exceed a height offset of 8 cm in the case of a double-row arrangement.
- Before injection blow out boreholes with oil-free compressed air.
- The substrate preparation must be adapted to the specific job site conditions and the choosen method.

Working instructions

Mixing

- For injection works, mix **weber.tec 940 E** with water in a ratio of 1 : 9 up to 1 : 14 parts by volume, depending on the damp content of the masonry. Fill first the water, add the resin and mix.
- In case of high moisture content, select the lowest mixing ratio (1 : 9).

Injection method

- Insert the packers into the boreholes.
- The injection is carried out with a steady, low pressure < 10 bar with suitable equipment (for ex. injection pump Unipress D 2).
- The masonry must be completely saturated with **weber.tec 940 E** in the injection zone in order to stop the capillary transport of rising damp perfectly.

Patented "wet-in-wet" injection method

- In case of masonries with large cavities, the patented "wet-in-wet" injection method has to be used.

- Drill holes at a distance of 10 - 12 cm and at an angle of inclination of 15° - 20° diagonally downwards. The borehole length is 5 cm less than the masonry thickness.
- The drilling point must be established in such a way that the borehole goes through at least 2 horizontal masonry joints.
- First fill the cavities with the mortar **weber.tec 942**, using suitable injection packers.
- Afterwards, as soon as the mortar has started to stiffen, pierce the mortar with a steel rod and inject the resin with a pump under a pressure of 15 - 20 bar via the same packers like those used for grouting the mortar.
- Repeat the injection after about 1 - 3 hours.
- We recommend the use of injection pumps (companies Dittmann Oberflächentechnik or Desoi).
- Finally close the boreholes with **weber.tec 942** or the watertight mortar **weber.tec 933**.

Soaking method without pressure

- Drill holes (diameter: 30 mm) at a distance of approx. 10 cm and at an angle of inclination of approx. 25 - 45° diagonally downwards.
- The borehole length is 5 cm less than the masonry thickness.
- At least one horizontal joint must be pierced.
- Fix small plastic cans as storage tanks into the boreholes and fill them with the resin.
- For a better consumption control, pour the resin via the cans in several steps. Allow the product to penetrate the masonry for at least 8 hours. Pour the resin again up to saturation.
- After works completion close the boreholes with **weber.tec 942** or **weber.tec 933**.

Practical information

Colours:
yellowish to red-brown

Tools:
Injection pump and injection packers (for injection method and “wet-in-wet” injection method), plastic cans (for soaking method).

Storage:
The product can be stored at least 18 months in its original unopened packaging, if kept dry and frost-free.

Consumption / yield

Wall thickness (cm)	Consumption weber.tec 940 E	
	undiluted in liters per meter brickwork	diluted in liters per meter brickwork
40	0.8 - 2.0	8 - 20
60	1.2 - 3.0	12 - 30
80	1.6 - 4.0	16 - 40
100	2.0 – 5.0	20 - 50

Packagings

Type	Sales unit	Number / euro-pallet
Plastic can	5 liters	90 cans
Plastic can	20 liters	24 cans

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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