

High-build epoxy resin mortar for vertical and soffit application

weber.tec EP highbuild

epoxy plus low slump mortar



Uses

Suitable for the repair of:

- Damaged concrete on vertical and overhead applications
- Mullions
- Soffits
- Precast units
- All spalled or damaged concrete

About this product

weber.tec EP highbuild consists of epoxy resin, hardener and special lightweight aggregates which, when mixed, produces an epoxy mortar of a lightweight thixotropic nature. The mortar has low-slump characteristics suitable for the repair of damaged concrete on vertical and overhead applications. It can be used to repair mullions, soffits, precast units and all spalled or damaged concrete. Because the tendency to slump is reduced, it can be applied in thicker layers than would normally be possible with standard epoxy mortars.

Features and benefits

- ▲ Stronger than concrete in less than 24 hours
- ▲ Low modulus material
- ▲ Allows for movement
- ▲ Absorbs impact
- ▲ Avoids the use of expensive shuttering
- ▲ Good chemical resistance
- ▲ Impermeable to water and other liquids
- ▲ Reduces the number of layers on thick applications
- ▲ Can be applied in layers up to 75 mm thick on vertical faces or up to 30 mm deep on soffits

Technical data

All tests carried out at 20°C

Compressive strength	7 days	50 N/mm ²
Tensile strength	7 days	8 N/mm ²
Flexural strength	7 days	21 N/mm ²
Modulus of elasticity		15 kN/mm ²
Density		1.35 kg/litre

Pot life and curing

Pot life:	1 hour at 20°C 35 minutes at 40°C Do not apply below 5°C and above 40°C
Initial cure:	6 – 16 hours depending on temperature
Full cure:	2 – 7 days depending on temperature

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Preparation

Surface preparation

As with all repairs and applications it is essential to apply to a clean, sound, roughened surface free from all grease, oil, dust and loose material.

Concrete

Concrete substrates must be adequately prepared either by use of a suitable mechanical method, such as scabbling, grit blasting or needle gunning, or by such other means as appropriate to give a clean, freshly-exposed, sound surface.

Old concrete surfaces contaminated with oil or grease require suitable preparation such as steam cleaning in conjunction with a suitable detergent.

Care must be taken to ensure that the oil or grease is removed from the surface and not simply spread over a larger area.

Steel substrates

Steel substrates should first be grit blasted to BS 7079-A1 (equivalent to SA 2½ quality) followed by degreasing with a suitable solvent (e.g. **weber.tec solvent 3**) immediately prior to bonding. However, in many instances where corrosion is absent, wire brushing to a clean bright surface may be adequate, but care must be taken not to simply polish the corrosion.

Priming

Priming is recommended prior to application on all surfaces. Use **weber.tec EP bonding aid** and allow to gel (3 – 6 hours depending on temperature).

It is essential to apply **weber.tec EP highbuild** on to a tacky surface. If steel is to be cleaned some time prior to reinstatement, **weber.tec EP bonding aid** may be used as a holding primer by applying to the cleaned steel and blinding with clean, dry, coarse sand. When required, proceed with priming as before.

Mixing

Mix the resin and hardener components thoroughly with a mechanical mixer, e.g. Mixal, or a low speed drill and EPI Mixer in a clean plastic bucket, until an even colour and consistency are achieved. Then add the filler slowly, mixing all the time. Do not overmix as this can affect the workability of the material. Full mixing instructions for proportional mixes are given in the instructions on the outer carton.

Application

Placing

Apply to the tacky, primed surface using a steel trowel and press firmly into position. In some cases it may be found most practicable to knead into position with gloved hand.

On vertical surfaces in small, enclosed patches thicknesses of up to 75 mm can be applied successfully, but if slumping occurs, proceed by building up in layers, scratching each layer and allowing to harden before applying subsequent layers. Use a priming coat of **weber.tec EP bonding aid** between each layer.

Finishing

Trowel to a smooth finish using a steel float dampened with a small amount of **weber.tec solvent 1**. In some cases a more acceptable match to the surrounding concrete may be achieved by using a plastic or wooden float.

Cleaning

Uncured primer and mortar may be removed with **weber.tec solvent 3**. Tools and equipment should be cleaned with this solvent immediately after use.

Packaging and coverage

weber.tec EP highbuild is supplied in a 16 kg pack yielding approx. 12 litres.

weber.tec EP bonding aid is supplied in a 5.6 kg pack yielding approx 5.0 litres, Coverage: 7.5 to 15.0 m²

Storage and shelf life

The shelf life of **weber.tec EP** materials is in excess of 12 months if stored in cool, dry conditions.

Health and safety

Contains epoxy constituents. Refer to information supplied by manufacturer (see Material Safety Data Sheet).

All skin contact with epoxy resin products should be avoided. Barrier creams should be used and operatives should wear protective clothing including gloves. Working areas should be well ventilated.

The hardener content is alkaline and labelled as corrosive. The resin content is labelled as an irritant. The flash point of all components is in excess of 100°C. In the event of fire use foam, dry chemical, carbon dioxide (CO₂) or water fog extinguishers.

For further information, please request the Material Safety Data Sheet for this product.

Technical services

Weber's Customer Services Department has a team of experienced advisors available to provide on-site advice both at the specification stage and during application. Detailed specifications can be provided for specific projects or more general works. Site visits and on-site demonstrations can be arranged on request.

Technical helpline

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Sales enquiries

Weber products are distributed throughout the UK through selected stockists and distributors. For UK sales enquiries and overseas projects, contact **Weber's** Sales office.

Sales office

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