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High-strength epoxy resin mortar for repairs, bedding and fixing

weber.tec EP mortar

epoxy plus mortar

About this product

weber.tec EP mortar is available as a three-component bulk pack or as a two-component handy pack, consisting of epoxy resin, hardener and selected graded aggregates (filler) which, when mixed, produce a high-strength, impermeable and chemically-resistant mortar.

Technical data

All tests at 20°C

Compressive strength	1 day	70 N/mm²
	3 days	75 N/mm²
	7 days	80 N/mm²
Tensile strength	7 days	15 N/mm²
Flexural strength	7 days	30 N/mm²
Modulus of elasticity		10 kN/mm²

Pot life and cure time

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

Uses

weber.tec EP mortar has negligible shrinkage characteristics, plus high adhesion, making the product ideal for all types of concrete repair including repairs to:

- Precast units
- Spalled and cracked concrete structures
- Floors and other substrates where chemical resistance and/or impermeability to water, oil, petrol and many chemicals is required

weber.tec EP mortar can also be used for bedding

- Beams
- Runway lights
- Bearings including bridge bearings

Features and benefits

- Fast epoxy repair – stronger than concrete in less than 24 hours
- High-strength – 2 to 3 times stronger than normal concrete
- Impermeable to water, oil, petrol, chemical spillage
- Easy to mix and apply

Chemical resistance

All at 20°C

Petrol and Oil		Excellent
Sugar Solution		Excellent
Sulphuric Acid	25%	Very good
Nitric Acid	10%	Good
Hydrochloric Acid	10%	Good
Lactic Acid	10%	Very good
Acetic Acid	5%	Good
Citric Acid	10%	Excellent
Tartaric Acid	10%	Excellent
Sodium Hydroxide	50%	Excellent

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Preparation

As with all concrete repairs, it is essential to remove all grease, oil, dust and other loose materials.

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. Concrete bases for toppings must be carefully prepared to give a clean, freshly-exposed, sound, roughened 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 Swedish Standard Specification SA $2^1/_2$, 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 just polish the rust on the surface.

Priming

The bond of **weber.tec EP mortar** will be improved by the application of a bond coat of **weber.tec EP tackcoat** or **bonding aid**, both of which are moisture-tolerant primers.

In all cases, the epoxy mortar must be applied whilst the primer coat is still tacky.

When applying **weber.tec EP mortar** to vertical surfaces, **weber.tec EP bonding aid** should be used as the bond coat.

Mixing

For the larger packs, the resin and hardener should first be thoroughly mixed to an even colour and consistency before adding the filler. The quantity of the filler may be adjusted to achieve a less viscous consistency, but should never be less than the amount detailed on the packaging.

The small packs have filler included in resin and hardener components.

Application

The mortar should be applied using a steel trowel in layers of up to 20 mm thick.

Allow initial set (6 hours approximately) between layers. On vertical surfaces the maximum thickness should be 12 mm.

The mortar should be well tamped to ensure proper consolidation and then trowelled to bring up enough resin binder to thoroughly seal the surface.

Feather edging must be avoided. The edges of all repairs should be 'toed in' i.e. cut back so the minimum thickness is not less than 5 mm.

weber.tec EP mortar can be applied to vertical surfaces as well as horizontal, but where higher-build layers are required on vertical surfaces or for soffit application, **weber.tec EP highbuild** is more suitable. In situations of high temperature variation, **Weber** has a range of cementitious mortars, which may be more suitable to a particular application.

Cleaning

Uncured material may be removed with **weber.tec solvent 3**.

Clean all tools etc, with **weber.tec solvent 3** immediately after use.

Packaging and coverage

weber.tec EP mortar is supplied in two pack sizes –
5 kg pack – yield approximately 2·7 litres
26 kg pack – yield approximately 12·5 litres

The 26 kg pack is supplied as a 6-way split pack.

Storage and shelf life

The shelf life of **weber.tec EP mortar** is in excess of 12 months if stored in cool, dry, frost free 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 or water fog extinguishers.

For critical structural applications and applications in exposed situations where very high surface temperatures may be recorded, please contact our Technical Sales Department for further advice before use.

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
Tel: (01525) 722110

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
Tel: (01525) 722100
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