CI/SfB | | Yr4 |
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construction solutions

Acrylic-polymer modified, high-build façade repair mortar

weber.cem HB30

mulsifix high build 30 repair mortar

Uses

- High-build mortar to repair building facades
- Overhead and vertical repairs to soffits, decks and columns
- Repair of voids and honeycombed areas

About this product

weber.cem HB30 is a single-component, polymer-modified, high-build cementitious mortar, designed for concrete repairs to facades where high compressive strength is not the major consideration. It requires only the addition of clean water to produce a lightweight, low-permeability, medium-strength mortar suitable for both soffit and vertical repair situations.

Features and benefits

- High-build properties – up to 100 mm vertically and 75 mm overhead, without formwork
- Achieves more than 30 N/mm² in 28 days
- Compatibility with concrete greater than 20 N/mm²
- Unique shrinkage compensation system provides long-term dimensional stability. Less than 0.02% shrinkage at 28 days
- Easy to apply, with excellent application properties
- Low permeability to water, carbon dioxide and chlorides
- Contains fibres and spray dried acrylic polymer
- Agrément approved as part of the **weber.cem** Concrete Repair System

Technical data

All test results were obtained at 20°C, unless otherwise stated. 2.5 litres of water per 20 kg bag

Compressive strength*	7 days 28 days	23 N/mm² 30 N/mm²
Flexural strength	28 days	3.5 N/mm²
Tensile strength	28 days	2.7 N/mm²
Dynamic modulus of elasticity	28 days	15.0 kN/mm²
Drying shrinkage (25 x 25 x 285 mm prisms) 25°C, 50% RH	28 days	< 200 microstrain
Carbon dioxide barrier, equivalent concrete thickness at 10 mm (Taywood method)		200 mm
Water absorption ISAT (BS 1881-208:1996)	10 min.	0.02 ml/m²/sec
Fresh wet density		1425 kg/m³
Working time		30 – 45 minutes

* Value obtained in laboratory conditions.
Achievement at 28 days strength is dependent on site conditions, water addition and application technique.
Typically, compressive strength will vary between 25 and 35 N/mm² at 28 days.

FM 1209

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Preparation

Concrete substrates
Concrete substrates must be adequately prepared by use of scabbing, grit blasting, needle gunning or other means, as appropriate. Oil and grease must be removed by steam cleaning together with suitable detergent. Any contaminated concrete must be removed. All damaged concrete should be cut back to a sound surface and at least 15 mm behind any exposed reinforcement.

New concrete must be at least 14 days old.

Thoroughly saturate the concrete but remove excess water.

Steel substrates
These should be grit blasted to Swedish Standard SA $2^1/_2$ equivalent to BS 7079-A1 and degreased immediately prior to application. Where corrosion is absent, wire brushing to a clean, bright surface may be adequate. Care must be taken not to polish the rust. Apply a protective coating of **weber.cem keycoat** as described below to act as a holding primer.

Note: Preparation of both concrete and steel must achieve a clean, sound, roughened surface

Mixing

Mixing of bonding slurry
Mix 2 volumes of **weber.cem keycoat** powder to 1 volume of clean water. Mix vigorously to a brushable, slurry consistency.

For detailed application instructions, see separate **weber.cem keycoat** data sheet.

Mixing weber.cem HB30
A low-shear, forced-action mixer must be used e.g. Mixal Mixer or Creteangle. Hand mixing of the mortar is not recommended.

Mix for 2 minutes from adding the powder to the water.

Over mixing will entrain air and reduce compressive strength. Do not over mix.

Water addition is 2.4 to 2.6 litres of clean water per 20 kg bag. Start at 2.4 litres and adjust as required upwards to 2.6 litres.

Do not add more than 2.6 litres of water.

Application

Priming of steel reinforcement
Apply one full, unbroken coat of **weber.cem keycoat**, ensuring the back of the cleaned reinforcing bars are coated.

Priming of concrete substrate
Ensuring the prepared concrete substrate is saturated but surface damp, use a stiff brush to scrub the slurry well into the surface.

Apply the mortar to the substrate whilst the bonding slurry is still tacky and compact well into place, ensuring no air is trapped.

The minimum application thickness is 10 mm. Where very thick sections are required multiple applications may be necessary. Intermediate surfaces, should be scratched to give a good mechanical key.

Finishing
If subsequent materials or coatings are to be applied, finish with a wooden or plastic float or a sponge to present a lightly textured surface.

Curing
Unless a coating or other system is to be applied to the surface, cure immediately after finishing with **weber.tec ritecure**.

Where a coating or similar is to be applied, use **weber.tec latex** sprayed onto the surface in a continuous film or cover with polythene for a minimum of 7 days. The polythene should be sealed all around the repair with a suitable adhesive tape to create an airtight seal.

In the event of adverse curing conditions, a water-soluble staining can occur on the surface of the repair. This can be washed from the surface using an appropriate pressure washer prior to overcoating.

When cured, **weber.cem HB30** and **weber.cem keycoat** are stable to freeze/thaw conditions but, following good concreting practice, they should not be applied in freezing weather or onto frozen surfaces or at temperatures below 5°C.

Packaging

weber.cem HB30 is supplied in 20 kg bags.

Coverage

weber.cem HB30
Approximately 16.0 litres per 20 kg bag, i.e. 63 bags per m^3 or 1.6 m^2 per bag at 10 mm thickness.

weber.cem keycoat
Approximately 1 kg per 1 m^2.

Storage and shelf life

When stored unopened in a dry place at temperatures above 5°C, shelf life is 12 months from date of manufacture.

Health and safety

Contains cement (Contains chromium (VI). May produce an allergic reaction). Harmful by inhalation. Irritating to eyes and skin. Keep out of the reach of children. In case of contact with eyes, rinse immediately with plenty of water and seek medical help. After contact with skin, wash immediately with plenty of soap and water. Wear suitable protective clothing, gloves and eye/face protection.

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.

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