

*Polymer-modified DoT Class M  
patching mortar and render for  
cathodic protection*

# multifix repair mortar CP

(from 2006) **weber.multifix RM35 CP**



## About this product

**multifix repair mortar CP** is a pre-batched one component mortar needing only mixing with water to produce a render with low resistivity suitable for patch repairs on concrete structures.

## Technical data

### Performance

Note: The following test results were obtained in laboratory conditions at 20°C

Hardened density	2170 kg/ m <sup>3</sup>	
Bond to concrete	>1.5 N/mm <sup>2</sup> depending on substrate	
Bond to concrete after thermal cycling	>1.0 N/mm <sup>2</sup> depending on substrate	
Interlayer bond strength	>2 N/mm <sup>2</sup>	
Compressive strength	3 days	23 N/mm <sup>2</sup>
	7 days	27 N/mm <sup>2</sup>
	28 days	35 N/mm <sup>2</sup>
Electrical resistivity	28 days saturation	8250Ωcm

### Physical properties

Colour	Mid grey
Principal ingredients	Cement, fine aggregates, thixotropic agents, acrylic polymer powder. Max. agg size 1.0 mm
Powder bulk density	1600 kg/m <sup>3</sup>
Cement content approx	500 kg/m <sup>3</sup>
Total chloride ion content	Less than 0.06% by wt cement

## Uses

- Levelling rough surfaces of concrete
- Rendering and building up thicknesses over low cover to steel reinforcement
- Patch repairs to concrete bridge abutments, parapets, beams and crossheads
- Filling-in of core holes, small voids and shutter tie holes
- For tunnels, car parks, bridges, and marine structures such as jetties where cathodic protection is to be used as a preventative treatment
- For vertical and horizontal surfaces
- Suitable for external and internal surfaces

## Constraints

Limited to 10 mm thickness per layer for rendering.  
Do not use where there is a large variation in thickness: fill voids with **CP mortar** mixed to a stiffer mortar consistency first and allow to cure.  
Do not use where the substrates are subject to movement or are cracked.  
Do not use on heavily trafficked floors.

## Features and benefits

- ▲ Good bond to concrete – damp or wet
- ▲ Durable – does not crack or craze when applied and properly cured
- ▲ Easy to use – can be mixed by hand or mechanically
- ▲ Easy to apply – can be applied easily with a spray pump or by trowel without slumping
- ▲ Easy to finish – good smooth finish obtainable with a float or sponge. Provides a cohesive and level surface suitable for overcoating.
- ▲ Complies with DoT Class M mortar specification – contains more than 400kg/m<sup>3</sup> of ordinary Portland cement to BS 12, the maximum size of aggregate does not exceed 2mm, the total chloride ion content is less than 0.1% of cement, the resistivity at 28 days saturation is between 5 kΩcm and 15 kΩcm.

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## Preparation

All substrates must be sound, cohesive, free of loose matter, oil, grease and dust.

Concrete surfaces must be adequately prepared by use of suitable mechanical means such as scabbling, grit blasting, high pressure water jetting, needle gunning or other appropriate means to provide an adequate mechanical key for the mortar.

Old concrete surfaces contaminated with oil or grease require suitable preparation. New concrete must be cured effectively for at least 14 days or as directed by the engineer using an approved curing method not including use of a permanent curing membrane.

The perimeter of each area where **multifix repair mortar CP** is to be applied must be cut back square. Feather edging is not permitted. Use temporary battens or a wet mortar thickness gauge to ensure that the correct thickness of mortar is applied. Thoroughly dampen the area with clean water before applying **multifix repair mortar CP**.

## Mixing

### Water additions (per 25 kg bag)

As a repair mortar and for core hole filling: 2.75 to 3.0 litres  
 For bondcoat and for pumping: 3.25 litres  
 For hand application as a render: 3.0 to 3.25 litres

### For hand application

Mix **multifix repair mortar CP** in a forced action mixer or in a clean bucket using a paddle and a slow speed drill for at least 2 min. at a speed not exceeding 500 rpm. For small quantities less than 2 kg, mixing by hand using a spatula is permissible.

### For machine application

Use a Putzmeister P11 or similar machine. Machine mix the mortar for at least 2 mins using not more than 3.25 litres of clean water per 25kg bag.

Useable time after mixing: 60 min at 20°C.

## Application

Temperature range of application: +5°C to +35°C. Do not apply on frozen surfaces or when frost is expected within 24 hours unless special precautions are taken to protect the substrate and the finished work from falling below 5°C. Do not traffic until 4 days after application.

### Hand application: CP as a render

Apply an initial bondcoat with a plaster float to a thickness of about 2 mm pressing well onto the damp substrate, then immediately apply the first layer of **repair mortar CP** to the required thickness not exceeding 10 mm in total. Leave a rough surface suitable for subsequent bonding of the second coat which should be applied as soon as the first layer has hardened sufficiently to support the second layer (approx 4 hours at 20°C).

### Hand application: CP as a patching mortar

Apply an initial bondcoat with a plaster float to a thickness of about 2 mm pressing well onto the damp substrate, then immediately apply the first layer of **repair mortar CP** mixed to a stiffer consistency to the required thickness: up to 20 – 30 mm per layer on vertical surfaces, up to 15mm on soffits (see Size of Repairs Table below). Any subsequent layers of **repair mortar CP** should be applied not later than 24 hours after the previous layer (at 20°C).

### Machine application

Apply the mixed **multifix repair mortar CP** by spray pump to the required thickness (max. 10 mm in one pass) and level off with a screeding bar. When applying a total thickness of 20 mm in 2 layers, leave the first layer 'as screeded', before applying the second layer as soon as the first layer is firm enough to support it.

**Apply 2nd layer of multifix repair mortar CP after 4 hours and within 24 hours at 20°C.**

### Finishing

A sponge may be used for a slightly textured finish. Finish off with a float for a smooth finish but over-trowelling can lead to surface crazing.

### Curing

Immediately after completion of finishing and thereafter for the curing period, the mortar shall be protected against harmful effects of weather, including rain, rapid temperature changes, frost and from drying out. The method of curing shall prevent loss of moisture from the mortar. The curing time shall be three days at 20°C.

## Size of repairs

Principal uses of multifix repair mortar CP	Typical area (mm x mm)	Thickness per layer	Maximum thickness*
As a patch repair mortar on vertical or horizontal surfaces	300 x 300 600 x 600	20 – 30 mm up to 15 mm	50mm 30mm
As a patch repair mortar on soffits	300 x 300 600 x 600	max. 15mm max 10mm	30mm 20mm
For filling of core holes (Holes must be roughened to improve bond)	50mm dia. 100mm dia.	Unlimited Unlimited	Unlimited Unlimited
Rendering by spray or by hand	Up to 3 m <sup>2</sup> **	10mm	20mm

\* For thicker sections or larger areas use **multifix spray concrete CP** (Guniting application) or **five star repair concrete CP** (Flowing concrete in shuttered applications).

\*\* For larger areas, provide suitable joints.

## Storage and shelf life

When stored unopened in a dry place at temperatures above 5°C, shelf life is 6 months from date of manufacture.

## Packaging and yield

Supplied in a 25 kg bag.  
Yield approx. 12 litres.

## 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**  
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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.

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