

General-purpose, rapid-setting,
cement-based bedding concrete

weber.cem pyracrete



Uses

- Infilling around manholes
- Setting of kerbs
- Building up manhole chambers
- Temporary patch repairs
- Many applications requiring a rapid setting concrete

Constraints

Not suitable for structural repairs to reinforced concrete.

Features and benefits

- ▲ Complies with HD27/04
- ▲ Single component – ready to use
- ▲ Contains 5 mm inert coarse graded aggregate
- ▲ Rapid setting – 15 mins at 10°C
- ▲ Working time 7 mins at 10°C
- ▲ Can be applied to depths up to 500 mm thickness in small areas <0.5m²
- ▲ Replacement for damaged brickwork in manhole chambers
- ▲ Quality controlled material packed in 25 kg bags
- ▲ Can be used winter or summer

Components

Pre-blended concrete comprising:

Cementitious binder:	Minimum cement content 350 kg/m ³
Aggregate:	5 mm maximum sized graded non-reactive carboniferous limestone
Additives:	Microsilica, dust suppressants plasticisers

The total chloride content does not exceed 0.1% of the mass of cement.

Calcium chloride and admixtures containing chloride salts are not used.

About this product

weber.cem pyracrete is a ready-to-use rapid cement based concrete mix. It contains inert graded aggregates and non-chloride accelerators. The product has been designed to be tamped or poured into shuttered voids and for backfilling around ironwork, or to be used for applications where a lower slump is required.

Technical data

Dry density	2300 kg/m ³			
Initial set	10 mins at 20°C			
Slump	75 – 250 mm			
Adhesion to concrete	> 1.5 N/mm ²			
Compressive strengths (N/mm ²)	10°C	20°C	25°C	30°C
1 hr	2 – 5	14 – 16	18 – 22	20 – 25
2 hrs	15 – 18	20 – 23	20 – 25	25 – 30
6 hrs	22 – 25	25 – 30	25 – 30	30 – 35
12 hrs	25 – 30	25 – 30	25 – 30	35 – 40
24 hrs	30 – 35	30 – 35	30 – 35	40 – 50
3 days	35 – 40	35 – 40	35 – 40	40 – 50
7 days	35 – 40	35 – 40	35 – 40	40 – 50
28 days	40 – 50	40 – 50	40 – 50	40 – 50
Flexural strengths (N/mm ²)				
7 days	–	5.5 – 7.5	–	–
28 days	–	6 – 8	–	–
Direct tensile strength (N/mm ²)				
28 days	–	> 1.5	–	–

The table above shows typical lab results.

Preparation

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

Concrete substrates must be adequately prepared by a suitable mechanical method such as scabbling, grit blasting, water jetting or needle gunning, or by such other means as appropriate.

Concrete must be prepared to give a clean freshly exposed surface. The outer limits of concrete patches should be cut reasonably square and feather edges should be avoided.

Old concrete surfaces contaminated with oil or grease must be cleaned 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.

The concrete surface should be pre-wetted with water allowing surplus water to drain off.

When used to infill around manhole frames in asphaltic road pavements, ensure all debris has been removed before filling with this product.

Mixing

Mixing equipment

The recommended mixer is a twin bladed, double handed electrically driven paddle mixer. The contra-rotating paddles do not create a torque that is difficult to control and mixing is quick and easy even with this type of firm mortar. Mixing time is about 2 minutes.

Alternatively it is possible to produce a consistent mortar with a forced action mixer or a MR4 type of blade fitted to a powerful drill.

Mixing time is about 4 minutes.

We do not recommend hand mixing or mixing with a shovel on a board.

Mixing procedure

Pour 2.4 litres of water into a clean pail. **Do not use pails that have been used to mix the concrete without first cleaning them otherwise flash set may take place.**

Add the powder slowly while mixing all the time. After about half the powder is added, which should take about a minute, stir around the rim and into the bottom of the pail to ensure thorough mixing of all the powder, eliminating any undispersed powder that may have accumulated in the bottom.

The mix will appear very runny, like a grout at this stage. Continue to add powder, mixing all the while until all the powder has been added. Continue to mix until the concrete appears to be uniform in appearance.

This produces a tappable mix that is very easy to use. If a more pourable mix is needed add up to 0.3 litres extra water and mix well for a further 1 minute.

Avoid over-watering.



Twin paddle mixer



Pouring weber.cem pyracrete

Application

Very rapid-setting. Use quickly.

Place the concrete in the dampened and prepared area. Place from one side to the other and work material into sides and bottom of the prepared area to ensure satisfactory bonding.

Use rodding, tamping or power vibrators if necessary to ensure full compaction.

Screed and level up to existing concrete. Finish by trowel to seal edges, surface and saw cuts.

Do not re-temper by adding water.

NB: Fresh material may slump slightly on surfaces which are not level, in which case the final finishing should take place just prior to setting.

Winter working

weber.cem pyracrete can be used to carry out repairs at temperatures down to 5°C.

Curing

Protect from rain while setting. Set times will vary with temperature and water, but will typically be in the range 8 – 20 mins.

Packaging and yield

weber.cem pyracrete is supplied in 25 kg polylined paper sacks.

Water addition:
in the range 2.4 – 2.7 litres/25 kg bag.

Typical wet density: 2350 kg/m³.

Yield (at 2.5 litres/25 kg):
10.5 litres of concrete.

Storage and shelf life

This product is susceptible to ageing. When stored unopened in a dry place at temperatures above 10°C, shelf life is up to 6 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.

To the best of our knowledge and belief, this information is true and accurate, but as conditions of use and any labour involved are beyond our control, the end user must satisfy himself by prior testing that the product is suitable for his specific application, and no responsibility can be accepted, or any warranty given by our Representatives, Agents or Distributors. Products are sold subject to our Standard Conditions of Sale and the end user should ensure that he has consulted our latest literature.

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. Please contact the relevant Customer Services Team below for all product orders and enquiries.

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