

FERROCRETE



bringing materials to *life*™



BULK PORTLAND CEMENT CEM I 52,5

A high early strength Portland cement which is particularly suitable for:

- facilitating the early demoulding, handling and use of precast concrete units.
- maintaining production in cold weather.
- early striking of formwork.

Ferrocrete is a higher early strength Portland cement that conforms to the requirements of BS EN 197-1 CEM I 52,5.

Ferrocrete is a quality assured cement with independent third party certification and carries a CE Mark.

Applications

Ferrocrete is recommended to meet the following requirements:

- To produce high early strength in a wide variety of concretes, mortars and grouts.
- To facilitate the early demoulding, handling and use of all types of precast concrete products.
- To reduce formwork striking times.
- To help maintain normal concrete production during cold weather.

Properties

- Chemically similar to ordinary Portland cement.
- More finely ground than ordinary Portland cement to give higher early strength properties.
- Stiffens and sets at a similar rate to ordinary Portland cement.
- Does not contain any added accelerators or admixtures.
- Colour similar to ordinary Portland cement. Other properties are also similar to ordinary Portland cement.

Availability

Ferrocrete is available in bulk tankers throughout the United Kingdom.

Conditions of Use

- Concrete, mortars and grouts containing Ferrocrete Bulk must be specified and used correctly for best performance.
- The cement content must be correct and the water:cement ratio as low as possible consistent with satisfactory placing, thorough compaction and effective curing.
- The final finish quality of this material will depend upon the operative having the required skills and a familiarisation with the materials and its application methods.



- Lafarge Cement UK cannot be held responsible where workmanship has not been carried out in accordance with good practice.
- Ferrocete is manufactured from natural products, and slight shade variations may occur. Ferrocete Bulk will also have shade variations from differing manufacturing centres.

Technical Support

Further information or specification advice on Ferrocete and the full range of Lafarge cements can be obtained through the contacts listed overleaf.

Health and Safety

Contact between cement powder and body fluids (eg, sweat and eye fluids) may cause irritation, dermatitis or burns. Cement is classified as an irritant under the Chemicals (Hazard Information and Packaging) Regulations.

For further information, including control of soluble hexavalent chromium, refer to the appropriate Lafarge Cement Health and Safety Information Sheets.

The information in this datasheet is accurate at the time of printing, but Lafarge Cement UK reserve the right to amend details as part of their product development programme.

Typical properties (For guidance only, not to be used for specification purposes)		
Surface area	(m ² /kg)	400 to 480
Setting time – initial	(minutes)	60 to 180
BS EN 196-3 Mortar		
– compressive strength		
2 day	(N/mm ²)	30 to 40
7 day	(N/mm ²)	45 to 55
28 day	(N/mm ²)	58 to 70
Apparent particle density	(kg/m ³)	3080 to 3180
Bulk density	(kg/m ³)	
	Aerated	1000 to 1300
	Settled	1300 to 1450
Colour	L value	62.0-65.0
Sulfate	SO ₃ (%)	3.0 to 3.5
Chloride	Cl (%)	Less than 0.10
Alkali	Eq Na ₂ O (%)	0.4 to 1.0
Tricalcium Silicate	C ₃ S (%)	45.0 to 60.0
Dicalcium Silicate	C ₂ S (%)	15.0 to 25.0
Tricalcium Aluminate	C ₃ A (%)	7.0 to 12.0
Tetracalcium Aluminoferrite	C ₄ AF (%)	6.0 to 10.0

Further information

Technical helpline

Tel: 0845 812 6232

E-mail: info@uk.lafarge.com

Customer services

Tel: 0845 812 6300

E-mail:

customerservice@uk.lafarge.com

Portland cement is predominantly compounds of calcium silicate and calcium aluminate with a small proportion of gypsum. It is produced by burning or sintering, at a temperature in excess of 1400°C, a finely ground mixture of raw materials which contain predominantly calcium carbonate, aluminium oxide, silica and iron oxide. The cooled clinker formed is ground under controlled conditions with the addition of typically 5% gypsum.

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