PRODUCT DATA SHEET

CEMENT

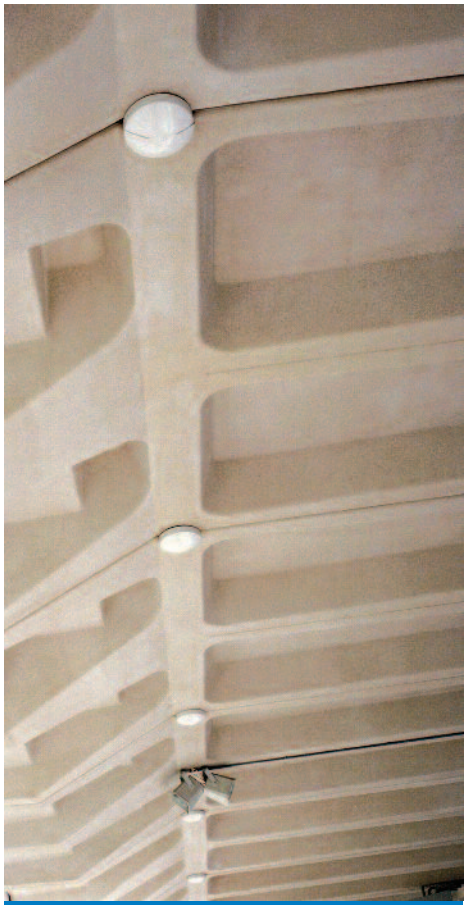
CI/SfB | | Yq2 | |

August 2011

# FERROCRETE

LAFARGE

bringing materials to life™



## 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 which complies with BS EN 197-1 CEM I 52,5.

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

### Applications

- 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 Procem.
- More finely ground than Procem to give higher early strength properties.
- Stiffens and sets at a similar rate to Procem.
- Does not contain any added accelerators or admixtures.
- Colour similar to Procem from the same Works. Other properties are similar to Procem.

### Availability

Ferrocrete is available in 25 kg bags throughout the United Kingdom. Ferrocrete is also available in bulk tankers.

### Storage

This product should be stored in unopened bags clear of the ground in cool dry conditions and should be stacked in a safe and stable manner.

Information on the maximum storage period can be found on the bag.

## Conditions of Use

- Ferrocrete may not be used where sulfate resistant cement is required.
- Ferrocrete may be used in the range of traditional nominal mixes as for traditional Portland cement.
- To achieve optimum performance from Ferrocrete in concrete or other products, it is essential that it is correctly specified and used.
- Recommended mixes are given in the Lafarge Cement Builders' Guide, available from the contacts below.
- As with other cements in building work, there is no substitute for good practice and workmanship. It is essential to use the correct materials, proportion and mix the materials properly, add the correct amount of water, compact, cure and protect as appropriate.
- Normal hot and cold weather practice should also be followed.
- The final finish quality of this material will depend upon the operative having the required skills and a familiarity with the material and its application methods.
- Lafarge Cement UK cannot be held responsible where workmanship has not been carried out in accordance with good practice.
- Manual handling should comply with The Manual Handling Operations Regulations 1992.
- Ferrocrete is manufactured from natural products, and slight shade variations may occur. Ferrocrete will also have shade variations from differing manufacturing centres.

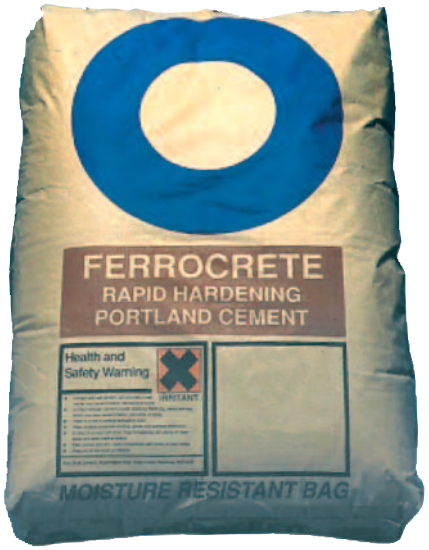
## Technical Support

Further information and advice on this product and the full range of Lafarge Cement products can be obtained through the contacts listed below. Alternatively, step-by-step application videos are available from us on the internet, by scanning the QR code below using your Smartphone or by downloading our iPhone app from the App Store.

## 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.




*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.*

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

| | | |
|---|---|---|
| Surface area | ($m^2$/kg) | 330 to 400 |
| 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 | 55 |
| Sulfate | $SO_3$ (%) | 3.0 to 3.5 |
| Chloride | Cl (%) | Less than 0.10 |
| Alkali | Eq $Na_2O$ (%) | 0.4 to 1.0 |
| Tricalcium Silicate | $C_3S$ (%) | 45.0 to 60.0 |
| Dicalcium Silicate | $C_2S$ (%) | 15.0 to 25.0 |
| Tricalcium Aluminate | $C_3A$ (%) | 7.0 to 12.0 |
| Tetracalcium Aluminoferrite | $C_4AF$ (%) | 6.0 to 10.0 |

## Further information

**Technical helpline**
Tel: 0845 812 6232
info@uk.lafarge.com

**Customer services**
Tel: 0845 812 6300
customerservice@uk.lafarge.com

**iPhone App**
www.lafarge.co.uk/iphone

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