



Material Datasheet

RAPID Portland cement BS EN 197-1 - CEM I 52,5 R

CEMEX Rapid is a CEM I Portland cement designed to give a considerably greater rate of strength gain than CEMEX Portland, making it ideal for the cost-effective production of pre-cast concrete.

Portland cement is manufactured by burning a precisely specified mixture of raw materials containing lime, silica, alumina and small quantities of other materials to form a clinker. The clinker, together with calcium sulfate to control setting, is then ground to produce cement of the required fineness. Up to 5% of minor additional constituents (typically, limestone, fly ash or granulated blastfurnace slag) may be incorporated at the grinding stage.

CEMEX Rapid is made from the same clinker as Portland but the product is more finely ground in order to promote greater reactivity. CEMEX Rapid delivers higher early strength without significant reduction of setting time or the workable period.

Features/benefits/applications

- Increases the production rate of precast units by allowing the earlier stripping of moulds
- Assists in counteracting the effects of cold weather
- Compatible with chloride requirements for pre-stressed concrete

Delivery and storage

Delivered in pressurised bulk powder tankers by road, the standard load size is 28 - 30 tonnes. Silo identity disks can be provided for individual products by calling Customer Services on 0800 353433.

Make sure you're ready to receive and store your bulk material by viewing the checklist shown on www.cemex.co.uk

All CEMEX drivers are fully trained and experienced in the discharging of our vehicles, please do all you can to ensure your site is accessible with no obstructions. If you are in any doubt, we can send an engineer to advise you - just ask.

To avoid premature deterioration of the reducing agent incorporated in the cement for control of soluble chromium (VI), storage should be in accordance with our recommendations given on despatch documents.

Health and safety

Contact with wet cement, wet concrete or mortar may cause irritation, dermatitis or severe alkali burns. Contact between cement powder and body fluids (e.g. sweat and eye fluids) may also cause irritation, dermatitis or burns. There is serious risk of damage to the eyes. Wear suitable waterproof protective clothing, gloves and eye / face protection. In case of contact with eyes, rinse immediately with plenty of clean water and seek medical advice. After contact with skin, wash immediately with plenty of clean water. Keep out of reach of children. Contains chromium (VI), may cause allergic reaction, the risk of which is increased if the cement is used beyond the declared storage period shown on despatch documents.

Product applications

To produce a durable concrete using CEMEX Rapid, the cement content of the mix must be maintained at an acceptable level. BS 8500; Concrete - Complementary British Standard to BS EN 206-1, gives guidance for using cements in concrete for various exposure classes, aggressive ground conditions and intended working life.

Once in place, concrete requires moisture to develop its full strength and premature drying out must be avoided. In normal conditions and at temperatures in excess of 10°C, concrete should be cured under damp conditions for 1 to 3 days (cover with curing membrane, plastic sheeting or wet hessian); at temperatures below 10°C, this curing time should be doubled.

Protection against freezing is required until the concrete reaches a compressive strength of 5 MPa. If temperatures in excess of 30°C are experienced in the first 24 hrs of curing, then some reduction in 28-day strength can be expected.

All normal concrete admixtures (e.g. plasticisers, air-entrainers, retarders) may be used with CEMEX Rapid. A range of admixtures complying with BS EN 934 are also available from CEMEX.

Product certification

CEMEX Rapid has EC certification via BSi Product Services and bears the CE marking to indicate conformity to all requirements of its harmonised technical specification and a presumption of conformity to the essential requirements of the Construction Products Directive.

Certification scheme features

- Independent confirmation that products comply fully with technical specification.
- Independent audit testing of products by UKAS accredited laboratories.
- Independent evaluation of test data and appraisal of factory production control.
- Traceability of cement deliveries to the manufacturing works.
- Highest level of attestation of conformity (Level 1+) to the Construction Products Directive.

Product data

Routine test data including fineness, setting time, soundness, alkali and chloride levels and BS EN 196-1 mortar prism strengths are available in the form of weekly Cement Test Reports. Other test data including chemical analyses are also available on request.

Data on principal products are also available electronically. Contact us for further details and registration.

For further information please contact
Customer Services on:

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