



Material Datasheet

CEMENT

Portland-fly ash cement BS EN 197-1 - CEM II / B-V 32,5 N



CEMEX is a world leader in packed cement, backed with excellent technical expertise in blended cements and fly ash for more than 20 years.

The Rugby® brand signals a refreshed, coherent and extended range for the future. It not only reinforces our CEM II products and our commitment to sustainable development, but also stands for improved reliability and availability.

More specific information on CEM II cements can be found on the reverse of this datasheet.

Rugby® Cement may be used in various general applications, for concrete, mortar and render.

Features/benefits/applications

- A value, general purpose cement for use in concrete, mortar and render
- Rugby® Cement can be used with admixtures* to produce concretes suitable for a wide range of applications
- Consistent in quality and performance
- Compatible with lime and plasticising admixtures** used to produce workable mortars for use in brick/block laying and rendering
- Chromium (VI) compliant

*If air entrainment is required in mortar or concrete Rugby+ Premium will generally fulfill this function without any admixture.

**If mortars are required to be mixed on site without use of lime or admixtures Rugby General Purpose Mortar is available.

Delivery and storage

Delivered by road in a curtain-sided vehicle, the standard load size is 28 - 30 tonnes. All CEMEX drivers are fully trained and experienced in the safe delivery and unloading of our vehicles, but please do all you can to ensure your site is accessible with no obstructions.

Rugby® Cement is available in paper sacks delivered as shrink-hooded, 1.4 tonne modules on non-chargeable pallets. To avoid premature deterioration of the reducing agent incorporated in the cement for control of soluble Chromium (VI), storage should be in accordance with the recommendations given on bags and despatch documents.

Health and safety

Contact with wet cement, 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 bags and despatch documents.



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Product applications

Concrete

Sharp (concreting) sand should be used, together with 20mm maximum size coarse aggregate and the minimum amount of water necessary for placement and compaction. Excess mixing water reduces both strength and durability of concrete. Use of separate sand and coarse aggregate is preferable to all-in aggregate (ballast).

The following table gives nominal mix proportions by volume for general applications.

General purpose mix application:

For most uses except foundation work and outdoor paving.

	Proportions by volume	Amount per M ³ (approx)
Rugby+ Cement	1	310 kg
Sand	2	655 kg
20mm aggregate	3	1130 kg
(all - in aggregate)	(4)	(1785 kg)

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. Curing is particularly important with CEM II cements as early strengths may be slightly lower than for CEM I products. Protection of fresh concrete against freezing is essential and placement under such conditions should be avoided if possible.

Mortar

Rugby® Cement is fully compatible with hydrated lime and the plasticising admixtures* used to produce high workability mortars for use in brick/block laying and rendering. If, however, production of mortar on site without the use of lime or admixtures is required, then Rugby General Purpose Mortar is recommended.

*A plasticiser suitable for fly-ash will be required.

	Rugby+ Cement : Sand (with plasticiser)	Rugby+ Cement : Lime : Sand	Equivalent BS EN 998-2 Mortar class
General usage (low-rise housing)	1 : 5	1 : 1 : 5	M 2,5
Strong (free standing walls)	1 : 3	1 : ½ : 4	M 5

Rendering

In rendering applications, it is important when applying two-coat renders (normal practice) that the second coat is either thinner or weaker than the scratch coat to avoid problems with shrinkage and de-lamination. A suitable sand for rendering should be chosen. Mix proportions for rendering over strong and moderately strong backgrounds are given below.

	Rugby+ Cement : Sand (with plasticiser)	Rugby+ Cement : Lime : Sand
First coat (strong backgrounds)	1 : 3	1 : ½ : 4
First coat (moderate backgrounds) or Second coat (moderate and strong backgrounds)	1 : 5	1 : 1 : 5

Once placed, mortar requires measures to prevent premature loss of moisture and the advice given on curing of concrete is again applicable.

Product certification

Rugby® products are subject to rigorous third party certification procedures detailed in BS EN 197-2 (Cement – Part 2: Conformity evaluation), which lead to issue of EC certificates of conformity by an EU Notified Body. Products that carry EC Certification bear the CE marking to indicate conformity to all requirements of their harmonised technical specification and a presumption of conformity to the essential requirements of the Construction Products Directive.

CEM II information

CEMEX is committed to continuous improvement in environmental and sustainability performance, particularly through utilising recycled content, minimising landfill waste and improving our energy efficiency.

CEM II cements are factory produced Portland composite cements. Packed CEM II cements from CEMEX are of the Portland-fly ash type.

This product contains a minimum of 20% fly ash which is a by-product of Coal Fired Power Stations, making not only a more sustainable cement but also enhancing its performance characteristics.



For further information please contact
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