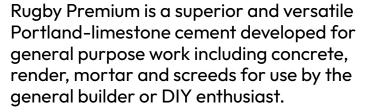
RUGBY® PREMIUM

PORTLAND-LIMESTONE CEMENT BS EN 197-1 CEM II / A-L 32,5 R

Vertua. LOWER CARBON



Based on Portland cement clinker, Rugby Premium includes a selected limestone and additives to produce a lighter coloured cement with enhanced finishing characteristics compared to traditional Portland cement (CEM I).











Applications

Rugby Premium is supplied in weatherproof packaging. It has a lower water demand compared to traditional Portland cement (CEM I) producing a more cohesive mix, and easier to work with. Rugby Premium has less tendency for water to segregate and bleed.

Product specification

Typical Properties		High Strength	Rugby Premium	Rugby Sulfate
EN196-1 Strength	2-day 7-day 28-day	33.0 45.5 59.0	20.0 31.5 41.0	24.5 32.5 49.0
Water for Standard Consistence/%H ₂ O		29.0	24.5	30.0
Initial Setting Time/Minutes		120-140	115-140	120-140
Fineness m²/kg		440-460	390-410	430-450
+SR		No	No	Yes
Colour / CIELab	L* a* b*	61.0 -1.2 5.9	63.0 -1.2 5.8	59.5 -1.1 7.0

Usage guidance and concrete properties

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 tables give nominal mix proportions by volume for common applications:

General purpose site mix

(For most uses except foundation work and outdoor paving).

Material	Proportions by Volume	Amount per M ³ (approx)
Rugby Premium	1	310kg
Sharp Sand	2	655kg
4/20 Aggregate	3	1130kg
(All-in/Ballast)	(4)	(1785kg)

Foundation site mix

(For footings, foundations and bases for precast paving).

Material	Proportions by Volume	Amount per M ³ (approx)
Rugby Premium	1	265kg
Sharp Sand	2.5	690kg
4/20 Aggregate	3.5	1110kg
(All-in/Ballast)	(5)	(1800kg)

Paving site mix

(For all exposed in-situ paving e.g. pool surrounds and driveways. Use of an air entraining admixture is recommended in this application).

Material	Proportions by Volume	Amount per M³(approx)
Rugby Premium	1	385kg
Sharp Sand	1.5	575kg
4/20 Aggregate	2.5	1150kg
(All-in/Ballast)	(3.5)	(1725kg)

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

Masonry mortar

Rugby Premium may be used in the proportions below to produce satisfactory cement/sand mortars with clean, well graded sands (see BS EN 998-1 Table NA1). The addition of a mortar plasticiser and/or the inclusion of Rugby Hydrated Lime may be desirable. 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

Lifts should be covered to allow for good curing after construction.

Application	Assumed BS EN 998-2 Mortar Class	Rugby Premium: Sand (with Plasticiser)	Rugby Premium: Rugby Hydrated Lime: Sand
General Use (Low rise/moderate exposure)	M4	1:5	1:1:5
Strong (Free-standing/severe exposure)	M6	1:3	1:0.5:4

Render

Rugby Premium may be used in the proportions below for general 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 shrinkage and/or delamination. A suitable sand graded specifically for rendering should be used. Attention to a good curing regime is important to ensure the cement has time to fully hydrate.

Application	Rugby Premium: Sand (with Plasticiser)	Rugby Premium: Rugby Hydrated Lime: Sand
First Coat (Strong substrate)	1	1:0.5:4
First Coat (Moderate substrate) OR Second Coat (Moderate or strong background)	1:5	1:1:5

Availability, delivery and storage

Cemex bagged cements are available across the UK.

Delivered by road in a curtain-sided vehicle, the standard load size is 28 tonnes. All Cemex drivers are fully trained and experienced in the safe delivery and unloading of our vehicles. Please ensure the site is accessible with no obstructions. A pre-delivery inspection can be arranged to assess the site for suitability, just ask.

Rugby Premium is available in 25kg weatherproof bags or 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 our recommendations given on bags and despatch documents.

Declared performance and UKCA marking

Cemex UK bagged cements conform to the relevant requirements of UK Designated Standard BS EN 197-1 or BS EN 197-5 and are subject to third party accreditation by a UK Approved Body in accordance with the most rigorous level of 'assessment and verification of constancy of performance' (AVCP 1+) specified in the UK Construction Products Regulation.

This provides:

- Independent confirmation that products conform fully to the relevant technical specification
- Regular independent auditing of products by UKAS accredited laboratories
- Regular independent evaluation of test data and appraisal of our Factory Production Control
- Traceability of cement deliveries to their source of manufacture

Declarations of performance in respect of the essential characteristics of our products are available from our website at **cemex.co.uk/ukcamarks**.



Bagged Cement UKCA mark information can also be found on our despatch documentation as required by the UK Construction Products Regulation.

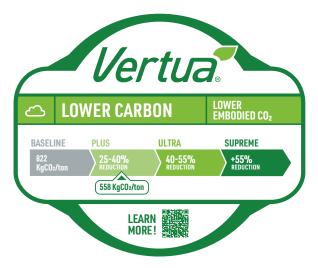
Sustainability

Sustainability at Cemex is embedded in our business strategy and in our day-to-day operations. Cemex aims to lead in sustainable construction by developing building products and solutions that have significant positive sustainability attributes and contribute to the transformation of the construction sector. Cemex manufacturing sites operate environmental management systems based on the principles of ISO 14001:2015. All of our operations are accredited to BES 6001 Responsible Sourcing and our cement operations are leading the way in carbon footprint production by using decarbonised raw materials, alternative sources of fuel and energy and developing a portfolio of cements containing lower clinker levels all contributing to a lower carbon intensity of our operations.

Our vision, through our Future In Action programme and our involvement in the United Nations' 'Race to Zero' campaign, is to lower our carbon intensity in our cementitious materials by 40% (against our baseline) by 2030 and by 2050 ensure we deliver net zero CO_2 company. These targets are in alignment with the Well Below 1.5°C Scenario defined by the Science Based Targets initiative.

Vertua – more sustainable by design

The Vertua 'lower carbon' logo and label is shown on selected cement products characterised by their unique composition. These cements contain the highest quality ingredients to reduce the carbon footprint of the finished product. Cements bearing this sign are guaranteed to reduce CO_2 emissions in the process of their manufacture by over 25%, than conventional Portland cement CEM I*. Our cements labelled as Vertua Ultra have over 40% lower CO_2 emissions with comparable performance.



Technical Services and Product Support Helpline:

Cemex UK provides support for our products through the dedicated support channels listed here.

Routine test data in the form of Weekly Cement Test Reports, Product Conformity Certificates etc are available through our online portal, please contact us for further details and registration.

Product Support

Bagged Cement Customer Services

0808 145 1900

0800 667 827

gb-enquiries@cemex.com

🔀 customerservices@cemex.co.uk

cemex.co.uk/bagged-cement-products

*Basis of calculation: GCCA standard value for cement clinker emissions (global weighted average of direct Net emissions of cement clinker) from Getting the Number Right (GNR) in 2000: 862 kg CO₂/t cement clinker. Reference value Cement (CEM I with 95% cement clinker content): 822 kg CO₂/t cement. (GWP figures calculated to recognised standards are available on request)

Vertua is a Cemex Group trademark that highlights specific characteristics of Cemex Group products regarding environmental impact as described in the corresponding Fact Label. The Vertua label is not intended as a certification. Cemex defines all labels on industry standards, the data in this label is based on operational performance and cement emissions taken from actual figures. This is subject to change and will be reviewed and updated annually.

Cemex is a global leader in the building materials industry providing high-quality, innovative products and exceptional service to both customers and the community in the most sustainable and efficient way possible.

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