BULK MATERIAL DATASHEET

CEMSTONE

PORTLAND-LIMESTONE CEMENT

CEM 2

BS EN 197-1 – CEM II / A-L 42,5 N

CEMEX Cemstone is a factory produced Portland-limestone cement with a lower carbon footprint that complements our range of Portland (CEMI) cements.

Cemstone provides benefits in a wide range of concrete, mortar, render, screed and grout applications. Cemstone 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, high purity limestone and calcium sulfate (to control setting), are interground to produce a very consistent cement with special characteristics.

CEMEX Cemstone is suitable for use as an alternative to Portland cement in most types of concrete except where aggressive ground conditions demand the use of sulfate resisting cement, when CEMEX Extra should be specified.

FEATURES

- REDUCED RISK OF THERMAL CRACKING
- LOWER EFFECTIVE ALKALI CONTENT ALLOWS USE AT HIGHER CEMENT CONTENTS FOR STRENGTH AND DURABILITY

BENEFITS

- CONSISTENT, CONVENIENT AND COST EFFECTIVE
- IMPROVED WORKABILITY, COHESION AND FINISHING

APPLICATIONS

- CAN BE USED IN DC-1 AND DC-2 AGGRESSIVE GROUND CONDITIONS
- IDEAL FOR SELF-COMPACTING CONCRETE DUE TO THE INCLUSION OF FINELY GROUND LIMESTONE
- FOR USE IN CONCRETE, MORTAR, RENDER, SCREED AND GROUT

DELIVERY & 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.

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 & 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. A comprehensive SDS is available for all CEMEX Portland cements.

PRODUCT APPLICATIONS

CONCRETE MIX

To produce a durable concrete using CEMEX Cemstone, 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 a CEMII/A-L cement in concrete, under various exposure conditions.

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 10ºC, concrete should be cured under damp conditions for 1 to 3 days, (cover with curing membrane, plastic sheeting or wet hessian); at temperatures below 10ºC, this curing time should be doubled. Protection against freezing is required until the concrete reaches a compressive strength of 5 MPa.

All normal concrete admixtures (eg plasticisers, air-entrainers, retarders) may be used with CEMEX Cemstone. Trials should, however, be carried out to establish required dosage rates.

A range of admixtures complying with BS EN 934 are also available from CEMEX.

Mixes to resist chemical attack

Please refer to the latest version of the Building Research Establishment (BRE) Special Digest 1 or BS8500 Concrete

CEMEX Cemstone can be used in the same ground conditions as CEMI (CEMEX Portland), up to Design Chemical Class 2 Sulfate Conditions.

In some marine environments an alternative cement to Cemstone may be necessary depending on the exposure conditions.

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.

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. CEM II cements from CEMEX contain sustainable additions that reduce the carbon intensity of the products.This product contains limestone making not only a more sustainable cement but also enhancing its performance characteristics.

DECLARED PERFORMANCE AND CE MARKING

CEMEX cements conforming to the harmonised European standard, BS EN 197-1, are subject to rigorous third party certification procedures by an EU Notified Body, in accordance with assessment and verification of constancy of performance (AVCP) system 1+.

Declarations of Performance, in respect of essential characteristics, are available from our UK website (www.cemex.co.uk/cemarks).

The CE marking is affixed to packaging and/ or despatch documents as required by the Construction Products Regulation.

CERTIFICATION SCHEME FEATURES

- Independent confirmation that products conform fully to 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
- Most rigorous AVCP system (1+) specified in the Construction Products Regulation

TYPICAL PROPERTIES		CEMSTONE	EXTRA	PORTLAND
EN196-1 Strength	2 day	26.5	24.5	33.0
	7-day	39.0	32.5	45.5
	28 day	49.0	49.0	59.0
Water for Standard Consistence/ $\%H_2O$		26.5	30.0	29.5
Initial Setting Time/Minutes		120-140	120-140	100-120
Fineness m^2/kg		350-370	430-450	390-410
Declared Maximum Alkali / $\%Na_2O$		0.70	0.62	0.75
+SR		No	Yes	No
Colour / CIELab	L*	61.0	59.5	60.0
	a*	-1.2	-1.1	-1.3
	b*	5.9	7.0	6.5

For further information please contact Customer Services on:

Tel: 0808 145 1900
Fax: 01788 517 453
E-mail: customerservices@cemex.co.uk

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CEMEX UK Operations Ltd,
CEMEX House, Evreux Way,
Rugby, Warwickshire CV21 2DT
Tel: 0800 667 827
Email: gb-enquiries@cemex.com
www.cemex.co.uk