

CEMFREE OPTIMA - DECLARATION OF PERFORMANCE

Manufacturer and Authorised representative:

DB Group (Holdings) Ltd. Wellington Way, Bourn Airfield, Cambridge, CB23 2TQ

Herewith declare that the product Cemfree Optima is in conformity with the provisions set out below when used in accordance with the instructions contained in the product documentation:

- Cemfree Optima- TDS

And the standards referenced below have been applied:

- PAS 8820:2016 Construction materials. Alkali-activated cementitious material and concrete specification
- BS EN 197-1:2011 Cement. Composition, specifications and conformity criteria for common cements
- BS EN 197-2:2020 Assessment and verification of constancy of performance
- BS EN 196:2016 series
- BS EN 14216:2015
- BS EN ISO 9001: 2015 Quality management systems – requirements

DESCRIPTION OF PRODUCT

- 1.1 Cemfree Optima – Alkali Activated Cementitious Material (AACM) – Cemfree 22.5 VLH
- 1.2 Cemfree Optima when incorporated into concrete enhances the durability of the concrete and reduces the environmental impacts related to resource depletion, global warming potential (GWP) and waste to landfill, supporting the drive to a more circular economy.

PROVISIONS TO WHICH THE PRODUCT CONFORMS

Physical & Mechanical Properties		
Property Tested	Average Value	Test Method
Compressive Strength – Mortar Samples (MPa)	2 days – 6.3 28 days – 24.2	EN 196 – 1 (modified)
Initial setting time (min)	340	EN 196 – 3
Final setting time (min)	482	EN 196 – 3
Soundness (mm)	<1.0	EN 196 – 3
Specific surface area (cm ² /g)	5200	EN 196 – 6
Density (kg/m ³)	2895	EN 196 – 6
Heat of hydration (J/g)	24 hours – 58.7 7 days – 100.1	EN 196 – 9
Loss on Ignition (%)	0.75	EN 196 – 2
Chloride Content (%)	0.05	EN 196 – 2
Sulphate Content (SO ₃) (%)	0.50	EN 196 – 2

BATCH OF SERIAL NO.:

Cemfree – CFB Optima Q2/23

STORAGE & HANDLING

Cemfree Optima should be stored in dry 20kg or bulk bags kept off the ground or in a silo, and must be handled according to the Material Safety Data Sheets (MSDS).

Binder should be stored for a maximum of 3 months before an additional quality assurance (QA) inspection is undertaken to confirm product performance.

PERSONAL PROTECTIVE EQUIPMENT

Cemfree must be handled in line with up-to-date H&S guidelines. Please refer to Cemfree MSDS for further information.

CONTACT US

For further information regarding Cemfree, please contact our Cemfree commercial team or Technology department on 01954 780 687.

MANUFACTURER AND AUTHORISED REPRESENTATIVE:

Name: Jane Ghosh



Position: Concrete technologist

Date: 28/09/2023

REVISIONS

Version History				
Date	Description	Revision	Author	QC
15/04/2020	Final Document	N/A	KK	
07/05/2020	Amendments	Additional information re Standards added	VE	
12/05/2020	Amendments	Removed laboratories involved section	LL	LL
10/10/2023	Amendments	Updated format	JG	

LEGAL TERMS & DISCLAIMER

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