

FLOWCAST GRC

High Performance Multi-Functional Admixture for GRC

PRODUCT DESCRIPTION

FlowCast GRC is a unique powdered polymer and plasticiser blend that has been specifically designed to replace the liquid polymer and liquid superplasticiser used in the production of premix GRC. Based on new generation dispersing agents and carefully selected polymer blends, its molecular structure has been designed to promote exceptional properties.

Comprising of integrated powdered polymers, viscosity modifiers and superplasticising systems, **FlowCast GRC** offers GRC producers enhanced strength gain, improved LOP and MOR, faster demoulding and improved dry curing times than traditional GRC admixtures and polymers.

APPLICATIONS

FlowCast GRC is primarily used for making free flowing premix GRC products and will allow a more controlled working life, which is enhanced by improvements in the dry cure process.

BENEFITS

- Increased early age compressive strengths.
- Increased LOP.
- Increased MOR.
- Reduced shrinkage.
- Reduced water absorption.
- Eliminates waste.
- Lower film form temperature.
- Health & Safety benefits.
- Improved surface finish.

PROPERTIES

Nature:	Powder
Appearance:	White
Density:	approx. 0.600 g/cm ³
Chloride Content:	< 0.10%
Na ₂ O equivalent:	<1.00%

ADDITION RATES

Dosage rate will be dependant on the mix design and the production process, but typically:

150—350 grams per 25kg cement.

For sprayed GRC applications please use **SprayCast GRC** which has an increased open life.

STANDARDS

FlowCast GRC is produced in accordance with the ISO 9001 Quality Management Standard and the ISO 14001 Environmental Management Standard.

TESTING

FlowCast GRC has been independently tested to BS EN 1170 parts 5—8.



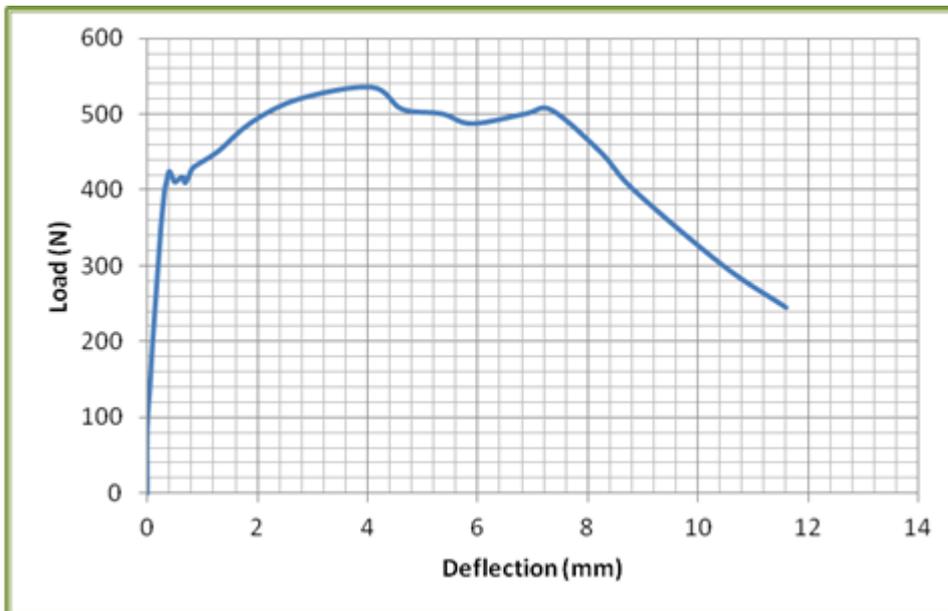
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TECHNICAL

The large area under the load deflection curve indicates greater resilience, ductility (crack control) and impact resistance of the GRC material made with **FlowCast GRC** admixture. The more mature matrix at 28 days provides greater efficiency of fibre reinforcement leading to higher post cracking flexural strengthening. The glass fibre reinforcement imparts considerable ductility and flexural strengthening to the brittle matrix composite, making it suitable for many applications in buildings. Producers have more latitude to modify concrete mix design, save costs and be more innovative with design possibilities when using **FlowCast GRC** modified GRC. Greater ductility means the potential for lighter, stronger components which are easier to handle and are less prone to damage in transit and during installation on site.

The use of **FlowCast GRC** powder provides accurate dosing, reduced wastage and better inventory control together with a generally cleaner, safer working environment by virtue of the reduction in occurrence of liquid spills and consequent slip hazards.



		Premix	FlowCast	Test Method
Dry Density	kg/m ³	1900 ⁺³⁰⁰ / ₋₂₀₀	2120	EN 1170-6
<u>28 day bending strength</u>				
LOP	MPa	7 +/- 2	8.93	EN 1170-5
MOR	MPa	9 +/- 3	11.44	EN 1170-5
Water Absorption at 24 hours	%	11 +/- 3	7.18	EN 1170-6
Shrinkage	mm/m	1.2 +/- 0.3	0.928	EN 1170-7
Swelling	mm/m	1.2 +/- 0.3	0.709	EN 1170-7



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COMPATIBILITY

FlowCast GRC is compatible with all types of EN 197 cement systems and offers a wide range of benefits particularly in the production of free flowing concrete/grout.

STORAGE

FlowCast GRC should be stored undercover, protected from extreme temperature, frost and direct sunlight, the product has a minimum shelf life of 9 months. Moisture ingress will cause the product to harden.

HANDLING

Please refer to the **FlowCast GRC** material safety data sheet but in line with normal handling procedures, personal protective equipment should be worn.

PACKAGING

FlowCast GRC is supplied as a loose powdered additive in sealed 15kg plastic tubs and in 250g sachets supplied in a box containing 56 sachets.

BATCHING ORDER AND MIXING PROCEDURE

1. Mix cement and water together to produce a high viscosity slurry.
2. Add **FlowCast GRC** and mix to produce a low viscosity slurry.
3. Add sand whilst mixing.
4. Adjust water content (within specification) and if necessary adjust to the required consistency.
5. Slowly mix in the fibres.

These procedures are a guide and other methods may be employed, however, the admixture **MUST** be added to wetted cement and **NOT** added to the sand as this will negate the effects of the admixture affecting both the plastic and hardened properties.

Please consult the OSCRETE technical department for advice on admixture selection.

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Disclaimer

The physical properties quoted are typical, and should not be taken as a specification. The information supplied in our literature is based on data and experience and is given in good faith. Our policy is one of continuous research and development and we reserve the right to update this information at any time; customers should therefore ensure they have the latest issue. Whilst we guarantee the consistent high quality of our products, we have no control over the circumstances in which our materials are used, site conditions or the execution of the work and are therefore unable to accept any liability for any loss or damage which may arise as a result thereof. Materials are supplied in accordance with our standard conditions of sale.



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CONSTRUCTION PRODUCTS