

TECHNICAL DATA SHEET

GRC is a composite material comprising of, cement, fine aggregates, alkali resistant glass fibres, acrylic polymers and admixtures/additives.

SPECIFICATION

In accordance with Specification for manufacture, curing and testing Glass reinforced concrete (GFRC).

Grades of GRC covered are:

Normally sprayed GRC: Grades 18 and 18P

where 'P' refers to the use of an aqueous acrylic thermoplastic co-polymer dispersion in the GRC mix design.

Alkali resistant glassfibre

Alkali resistant glassfibres, or AR glassfibres, are glass fibres suitable for use in concrete which have a high alkali resistance (AR) as they have a minimum zirconium dioxide (ZrO₂) content of 16%. AR glassfibres for use in GRC shall conform to the requirements of EN 15422, EN 14649 category B, or other equivalent national standards.

Mechanical Properties Grade 18p GRC at 28 days.

MoR	18 – 30 N/mm²
LoP	5 – 15 N/mm²
Density	2000 – 2100 Kg/m³
Water Absorption	8 – 13%
Porosity	16 – 25 %

Fire Properties

Tests indicate GRC Grade 18P is non-combustible (BS 476-4), achieves fire propagation Class 0 (BS 476-6), surface spread of flame, class 1, zero spread (BS 476-7), providing 4 hours integrity and A2-s1, d0 Classification of Reaction to Fire Performance in accordance with BS EN 13501-1:2007+A1:2009

Appearance and Quality

GRC is manufactured using natural materials such as silica sand are prone to minor color variation, texture may have minor variations too.

Manufacturing Tolerances

Manufacturing tolerances for GRC panels are predominantly determined by production capabilities. These should be in accordance with the parameters stated in the Practical Design Guide, Practical Fixing Guide documents, and recommendations published by GRCA International.

Quality Control

The testing regimes vary from daily 'calibration' checks to ensure that the constituent components of the manufacturing process are being correctly batched, to weekly tests to monitor the strength and flexural properties of our GRC.