FIBRE TECHNOLOGIES INTERNATIONAL

Technical Datasheet

FRP Rebar

High strength glass fibre reinforced rods

High strength alternative to coventional steel rebar

Product Description

FRP Rebars are made from high strength glass fibres along with an extremely durable vinyl ester resin. The glass fibre imparts strength to the rod while the vinyl ester resin imparts excellent corrosion resistance properties in harsh chemical and alkaline environments. FRP Rebar significantly improves the longevity of civil engineering structures where corrosion is a major factor.

Advantages

- Non-corrosive
- Tensile strength is more than twice that of steel
- Non-metallic and non-conductive
- Consistent modulus of elasticity
- Deformation patterns are the same as with steel
- Four times lighter than steel
- Coefficient of thermal expansion more similar to concrete than that of steel

Uses

- Architectural concrete and Glassfibre Reinforced Concrete (GRC)
- Concrete exposed to de-icing salts
- Applications subjected to other corrosive agents
- Applications requiring low electric conductivity or electromagnetic neutrality
- Tunnelling/boring applications requiring reinforcement of temporary concrete structures
- Weight sensitive structures
- Thermally sensitive applications

Product Information

Specific Gravity:	2.0 per D792
Glass Fibre Content by Weight:	70% minimum per D2584
Barcol Hardness:	65 per D2538
Coefficient of Thermal Expansion:	Transverse Direction: 21-23 x 10-6/°C Longitudinal Direction: 9.07 x 10-6/°C
Bond Stress:	10-12 MPa
Shear Stress:	Shear stress measured on 5/8” diameter bars using a double shear test fixture: 155 MPa

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Bar Size	Tensile Strength	Elastic Modulus
4mm	1248 MPa	43 GPa
6mm	1162 MPa	43 GPa
8mm	992 MPa	43 GPa

Available in 4mm, 6mm and 8mm diameters, supplied in 3m lengths

Technical Support

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