

GRP Grating vs FRP - Terminology & Material Comparison

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GRP, FRP, GFRP and fibreglass all describe the same engineered composite - continuous glass fibre embedded in a corrosion-resistant resin - distinguished only by regional naming convention. A specification written for GRP grating is fully interchangeable with FRP grating.

Terminology Map

Term	Full Name	Markets / Usage
GRP	Glass Reinforced Plastic	UK, Ireland, Australia, NZ, Commonwealth, European specs
FRP	Fibre / Fiberglass Reinforced Plastic	North American term for the identical panel
GFRP	Glass Fibre Reinforced Polymer	Used interchangeably on drawings and datasheets
Fibreglass / Fiberglass	Glass fibre in resin	Common; British vs American spelling
GRP grate	Glass reinforced plastic grating	Same open-mesh panel

GRP vs Galvanized Steel vs Aluminium

Property	GRP Grating	Galvanized Steel	Aluminium
Density (approx.)	1.9 g/cm ³	7.8 g/cm ³	2.7 g/cm ³
Corrosion resistance	Excellent - non-corrosive	Rusts; zinc coating degrades	Oxidises; pitting in chlorides
Electrical conductivity	Non-conductive	Conductive	Conductive
Maintenance	Zero, 20+ year service	Re-painting / re-galvanizing	Periodic cleaning
Strength-to-weight	High	High	High
Weight	Light (about 1/4 of steel)	Heavy	Light
Spark resistance	Spark-proof / non-sparking	Can spark	Can spark

Over a 20-year lifecycle in a chemical plant, GRP grating typically has the lowest total cost of ownership - no recoating, no replacement due to corrosion, plus non-conductive and spark-resistant service.

Data per ZeAllgrate published technical tables (izeall.com). Working guide - confirm with engineering before specification.