

## Typical Mechanical & Electrical Properties of GRP Bars & Angles

### Unidirectional E Glass rovings

Flexural Strength	650MN/m <sup>2</sup>	
Flexural Modulus	30GN/ m <sup>2</sup>	
Tensile Strength	500MN/m <sup>2</sup>	
Tensile Modulus	27GN/ m <sup>2</sup>	
Density	1.8gm/cc	
Water Absorption	0.5% – 2%	
Compressive Strength	190MN/m <sup>2</sup>	
Coefficient of Thermal Expansion	7.2 x 10 <sup>-6</sup> /K	
Barcol Hardness	40-70	40-70
Heat Distortion Temp	125-145°C	

Electrical Surface Resistivity	10 <sup>12</sup> OHMS (Between 10 <sup>10</sup> - 10 <sup>15</sup> )
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Volume Resistivity	10 <sup>15</sup> OHMS
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Insulation Resistance	M Ohm 1000
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Dielectric Strength @ 90°	Kv/mm 25
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Dielectric Strength @ 90°	KV 75
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Permittivity @ 50 Hz	5
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Dissipation Factor	0.02
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Comparative Tracking	V 600
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Arc Resistance	s 300
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### Accuracy

Calorific content of Polyester resin	28mj/kg
30% glass	19 mj/kg
60% glass	10-15mj/kg

### Available Resin Types

Polyester	Orthothalic Isothalic Resins
Vinyl Ester	
Acrylic	Modar (BS6853)