

## Typical Mechanical & Electrical Properties of GRP Rods & Tubes (Upto 31.8mm)

### 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
Heat Distortion Temp	125-145°C
Electrical Surface Resistivity	10 <sup>12</sup> OHMS (Between 10 <sup>10</sup> - 10 <sup>15</sup> )
Volume Resistivity	10 <sup>15</sup> OHMS
Insulation Resistance	M Ohm 1000
Dielectric Strength @ 90 <sup>0</sup>	Kv/mm 25
Dielectric Strength @ 90 <sup>0</sup>	KV 75
Permittivity @ 50 Hz	5
Dissipation Factor	0.02
Comparative Tracking	V 600
Arc Resistance	s 300

### Accuracy

Small Rod Tolerance up to 6mm

Polyester +0.05/-0.07

Vinyl Ester +0.05/-0.15

Calorific content of 811 resin 28mj/kg

30% glass 19 mj/kg

55%-60% glass 10-15mj/kg

