

# TECHNICAL DATA SHEET

Permal  
Gloucester

## PERMAGLASS 22FE 29 WOVEN GLASS EPOXY LAMINATE

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- ◆ Excellent Mechanical Properties
- ◆ High strength retention at 150° C
- ◆ Good Machining Characteristics
- ◆ BS 3953 Classification EP-7 and meets NEMA G11

Permaglass 22FE 29 is constructed from a woven glass fibre which has been impregnated with epoxy resin. This material offers high mechanical strength and stiffness, coupled with excellent electrical insulating properties and a high operating temperature.

<u>Property</u>	<u>Result</u>	<u>Test Method</u>
<b>PHYSICAL:</b>		
Specific Gravity	1.85	BS.2782 Part 6 (620A)
Water Absorption	0.06%	BS.2782 Part 4 (430A)
Temperature Classification	F (150° C)	BS.2757
<b>MECHANICAL:</b>		
Flexural Strength	530 MPa	BS.2782 Part 10 (1005)
Flexural Strength @ 150°C	320 MPa	BS.2782 Part 10 (1005)
Flexural Modulus	20 GPa	BS.2782 Part 10 (1005)
Tensile Strength	280 MPa	BS.2782 Part 10 (1003)
Shear Strength	140 MPa	BS.2782 Part 3 (340B)
Compressive Strength	550 MPa	BS.2782 Part 3 (345A)
Impact Strength	5 ft/lb ½" Notch	BS.2782 Part 3 (350)
<b>ELECTRICAL:</b>		
Electrical Strength	16 kv/mm	BS.2782 Part 2 (221G)
Insulation Resistance	> 10 <sup>10</sup> OHMS	BS.2782 Part 2 (232)
Loss Tangent (50 Hz 20°C)	.006	BS.2782 Part 2 (240A)
Permittivity (50 Hz 20°C)	5.0	BS.2782 Part 2 (240A)
Comparative Tracking Index	250 V	BS.5901
Arc Resistance	120 seconds	ASTM D495-85

### STANDARD SHEET SIZE:

1220 x 1220 mm (48" x 48")

2440 x 1220 mm (96" x 48")

Thickness range 0.5 mm to 50 mm

Other sizes available on request

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