

TECHNICAL DATA SHEET

Permal
Gloucester

01/03/01 Issue 07

PERMAGLASS MF22

LOW DENSITY PHENOLIC GLASS LAMINATE

- ◆ Low thermal conductivity
- ◆ Easy to machine
- ◆ Excellent fire resistance
- ◆ Low smoke and toxic fume emissions

Permaglass MF22 is manufactured from glass fibre and phenolic resin, using a special process to yield a low density laminated composite. MF22 provides low thermal conductivity combined with useful structural properties, and so is particularly suited to thermal insulating support components. Applications include cryogenic liquid storage tanks, pipe supports and other equipment. MF22 also exhibits excellent fire properties for safety critical applications.

<u>Typical Properties</u>	<u>Value for 6mm thick specimens</u>	<u>Test Method</u>
Thermal Conductivity	0.227 W/m°C 0.209 W/m°C 0.155 W/m°C 0.138 W/m°C	+200°C mean +100°C mean -50°C mean -100°C mean
Specific Gravity	1.0	
Water Absorption	0.9% Max	BS.2782 Part 4 (430A)
Flexural Strength (+23°C)	85 MPa	BS.2782 Part 10 (1005)
Flexural Strength (-150°C)	97 MPa	BS.2782 Part 10 (1005)
Flexural Modulus (+23°C)	5.1 GPa	BS.2782 Part 10 (1005)
Flexural Modulus (-150°C)	5.4 Gpa	BS.2782 Part 10 (1005)
Compressive Strength (+200°C)	68 MPa	BS.2782 Part 3 (345A)
Compressive Strength (+100°C)	72 Mpa	BS.2782 Part 3 (345A)
Compressive Strength (+ 23°C)	73 MPa	BS.2782 Part 3 (345A)
Compressive Strength (-100°C)	109 Mpa	BS.2782 Part 3 (345A)
Shear Strength (+23°C)	40 MPa	BS.2782 Part 3 (340B)
Charpy Impact Strength (+23°C)	16 kJ/m²	BS.2782 Part 3 (359)
Tensile Strength (+23°C)	60 Mpa	BS.2782 Part 10 (1003)

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Elec. Insulation Resistance	10 ³ M ohms	BS.2782 Part 2	(232)
Flammability	V-0 self extinguishing time	UL94	
Surface Spread of Flame	Class 1 with 0 flame spread	BS.476 Part 7	
Ignitability	Designation P, not ignitable	BS.476 Part 5	
Smoke Generation	Mean 55%	BS.5111 Part 1	
Operating Range	-196°C to 150°C (continuous)		

STANDARD SHEET SIZES:

1220 x 1220 mm (48" x 48")

6 mm to 50+mm thickness

Other sizes may be available on request

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