

TECHNICAL DATA SHEET

Permali
Gloucester

09/03/01 Issue 04

PERMAGLASS MER 35

GLASS EPOXY LAMINATE FOR ELECTRICAL INSULATION

FEATURES:

- ◆ Outstanding fire performance
- ◆ Excellent insulating characteristics
- ◆ Halogen free low smoke emissions
- ◆ Easily machined

CONSTRUCTION:

Permaglass MER35 is a unique epoxy composite developed for London Underground. Permaglass MER35 offers a very high Comparative Tracking Index and excellent protection against arcing.

Permaglass MER35 is fully compliant with London Underground specification RSE/STD/014 Part 1 : Issue A, Fire and Arc Protection Standard.

Permaglass MER35 offers UL94 V-0 FR requirements, and outstanding results when tested to BS6853 fire precaution specifications.

COLOUR:

Natural

Typical Properties

Result

Test method

PHYSICAL:

Specific Gravity	1.9	BS.2782 Part 6 (620A)
Water Absorption	0.025%	BS.2782 Part 4 (430A)

MECHANICAL:

Flexural Strength	160 MPa	BS.2782 Part 10 (1005)
Flexural Modulus	16 GPa	BS.2782 Part 10 (1005)
Tensile Strength	90 MPa	BS.2782 Part 10 (1003)
Tensile Modulus	12 GPa	BS.2782 Part 10 (1003)
Shear Strength	90 MPa	BS.2782 Part 3 (340B)
Compressive Strength	260 MPa	BS.2782 Part 3 (345A)
Charpy Impact	45 KJ/M ²	BS.2782 Part 3 (359)

Typical Properties	<u>Result</u>	<u>Test method</u>
ELECTRICAL:		
Electrical Strength	9 kv/mm	BS.2782 Part 2 (221G)
Insulation Resistance	> 10 ¹⁰ Ohms	BS.2782 Part 2 (232)
Volume Resistivity	> 10 ¹⁴ Ohms	BS.2782 Part 2 (230A)
Surface Resistivity	> 10 ¹⁴ Ohms	BS.2782 Part 2 (231A)
Comparative Tracking Index	> 600V	BS.5901
FLAMMABILITY:		
Fire Propagation	Sub-Index = 0.4 Index = 9.9	BS.476 Part 6
Surface Spread of Flame	Class 1	BS.476 Part 7
Three Metre Cube	A ₀ (On Max) 2.35	BS.6853
Smoke Emission Test	A ₀ (On End) 2.11 A ₀ (Off) 2.52	
Flammability Temperature	>350°C	BS.6853
Index Test		Clause A.9
Underwriters Laboratory	V - 0	UL94 Vertical Burning
Smoke and Toxicity Classification	F = 1	NF F 16-101 (102)
Flammability Classification		NF F 16-101 (102)

ALL VALUES ARE BASED ON LIMITED TEST RESULTS AND SHOULD NOT BE TAKEN AS INDICATIVE OF MAXIMUM OR MINIMUM VALUES.

STANDARD SHEET SIZE:

1220 x 1220

2440 x 1220

(thickness 3mm - 50mm)

Other sizes may be available on request.