

Technical Data Sheet

Glastic® 1580/1583

GFK-UP

Typical characteristics

- NEMA GPO-3
- Flame retardant

Typical industries

- Generator and Motor
- Dry transformers
- Electrical Industry
- Electrical Insulating Components
- Switchgear
- Electronics

	Test method	Unit	Guideline value
General properties			
Specific Gravity	ASTM D 792		1.83
Part Number			1580 (1583)
NEMA Grade LI 1-1989	NEMA LI-1		GPO-3
Standard Color			White (Red)
UL Temperature Index - Electrical	UL 746B	°C	120
UL Temperature Index - Mechanical	UL 746B	°C	140
UL Recognition File Number			E81928
Mechanical properties			
Flexural Strength	ASTM D 790	psi	24,600
Flexural Strength @130°C	ASTM D 790	psi	8,470
Compressive Strength	ASTM D 695	psi	31,200
Tensile Strength	ASTM D 638	psi	8,400
IZOD Impact Strength (notched)	ASTM D 256	ft. lb./in.	8.9
Shear Strength	ASTM D 732	psi	12,000
Thermal properties			
Coefficient of Thermal Expansion	ASTM D 696	(in./in.°C) x 10-5	2
Thermal Conductivity	ASTM C 177		1.9
Flame resistance properties			
UL Subject 94	UL 94		V0

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	Test method	Unit	Guideline value
UL Hot Wire Ignition	UL 746A	sec.	300+
UL High Amp Ignition	UL 746A		200+
Oxygen Index	ASTM D 2863	%O ₂	39
Ignition Time		sec.	84
Burn Time		sec.	23
Physical properties			
Water Absorption	ASTM D 570	% by wt.	0.2
Dielectrical properties			
Electrical Strength - Perpendicular S/T in Air	ASTM D 149	Vpm	425
Electrical Strength - Perpendicular S/T in Oil	ASTM D 149	Vpm	577
Electrical Strength - Parallel S/S in Oil	ASTM D 149	kV	47
Arc Resistance	ASTM D 495	sec.	181
IEC Track Resistance (CTI)	UL 746A	V	500+
Permittivity, 60 Hz	ASTM D 150		4.2
Dissipation Factor, 60 Hz	ASTM D 150		0.011
Dissipation Factor, MHz	ASTM D 150		0.010
Permittivity, MHz	ASTM D 150		4
Insulation Resistance	ASTM D 257	Ω x 10 ¹²	823

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