

Technical Data Sheet

Glastic® TSF 1312

GFK-UP



Typical characteristics

- UL® Recognized
- NEMA GPO-1

Typical industries

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

	Test method	Unit	Guideline value
General properties			
Part Number			1312
NEMA Grade LI 1-1989	NEMA LI-1		GPO-1/GPO-1P
Standard Color			Brown
UL Temperature Index - Electrical	UL 746B	°C	130
UL Temperature Index - Mechanical	UL 746B	°C	130
UL Recognition File Number			E23525
Mechanical properties			
Flexural Strength	ASTM D 790	psi	22,300
Flexural Strength @130°C	ASTM D 790	psi	15,400
Compressive Strength	ASTM D 695	psi	38,900
Tensile Strength	ASTM D 638	psi	9,400
IZOD Impact Strength (notched)	ASTM D 256	ft. lb./in.	8.0
Shear Strength	ASTM D 732	psi	13,400
Thermal properties			
Coefficient of Thermal Expansion	ASTM D 696	(in./in.°C) x 10-5	2.2
Thermal Conductivity	ASTM C 177		1.8
Flame resistance properties			
UL Subject 94	UL 94		HB
Oxygen Index	ASTM D 2863	%O ₂	21.8

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	Test method	Unit	Guideline value
Physical properties			
Water Absorption	ASTM D 570	% by wt.	0.3
Specific Gravity	ASTM D 792		1.78
Dielectrical properties			
Electrical Strength - Perpendicular S/T in Air	ASTM D 149	Vpm	417
Electrical Strength - Perpendicular S/T in Oil	ASTM D 149	Vpm	493
Electrical Strength - Parallel S/S in Oil	ASTM D 149	kV	44
Arc Resistance	ASTM D 495	sec.	127
Permittivity, 60 Hz	ASTM D 150		4.2
Dissipation Factor, 60 Hz	ASTM D 150		0.0095
Dissipation Factor, MHz	ASTM D 150		0.01
Permittivity, MHz	ASTM D 150		4.2
Insulation Resistance	ASTM D 257	$\Omega \times 10^{12}$	2.4

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