Raschig Group RESINOL® 87120 EPF Phenolic

Category : Polymer , Thermoset , Phenolic

Material Notes:

Glass-fiber reinforced phenolic molding compound. Excellent heat resistance, low mould shrinkage and post-shrinkage, good chemical resistance and very good mechanical properties. This product meets the allowed upper limits for heavy metals and PCAs and also conforms to the requirements of the EU directives 2002/95 (RoHS), 2002/96 (WEEE) and 2006/122 (PFOS)Processing: Injection and compression molding Applications: Parts for the automobile and engineering industries having high demands on dimensional stabilityInformation provided by Raschig Group

Order this product through the following link:
http://www.lookpolymers.com/polymer_Raschig-Group-RESINOL-87120-EPF-Phenolic.php

Physical Properties	Metric	English	Comments
Specific Gravity	1.85 - 1.95 g/cc	1.85 - 1.95 g/cc	ISO 1183
Apparent Bulk Density	0.600 - 0.800 g/cc	0.0217 - 0.0289 lb/in³	ISO 60
Water Absorption	<= 0.100 % @Temperature 23.0 °C, Time 86400 sec	<= 0.100 % @Temperature 73.4 °F, Time 24.0 hour	ISO 62
Linear Mold Shrinkage, Flow	0.00300 - 0.00500 cm/cm	0.00300 - 0.00500 in/in	Injection and Compression; ISO 2577

Mechanical Properties	Metric	English	Comments
Tensile Strength	80.0 - 100 MPa	11600 - 14500 psi	Compression; ISO 527
	120 - 140 MPa	17400 - 20300 psi	Injection; ISO 527
Modulus of Elasticity	14.0 - 18.0 GPa	2030 - 2610 ksi	Compression; ISO 527
	16.0 - 20.0 GPa	2320 - 2900 ksi	Injection; ISO 527
Flexural Strength	150 - 180 MPa	21800 - 26100 psi	Compression; ISO 178
	220 - 240 MPa	31900 - 34800 psi	Injection; ISO 178
Flexural Modulus	16.0 - 18.0 GPa	2320 - 2610 ksi	Compression; ISO 178
	18.0 - 22.0 GPa	2610 - 3190 ksi	Injection; ISO 178
Compressive Strength	280 - 330 MPa	40600 - 47900 psi	ISO 604
Charpy Impact Unnotched	0.800 - 1.00 J/cm²	3.81 - 4.76 ft-lb/in²	Compression; ISO 179/1eU
	1.20 - 1.40 J/cm²	5.71 - 6.66 ft-lb/in²	Injection; ISO 179/1eU
Charpy Impact, Notched	0.400 - 0.600 J/cm²	1.90 - 2.86 ft-lb/in²	Compression; ISO 179/1eA

Mechanical Properties	Metric	English	Comments
	0.700 J/cm²	1.33 ft-lb/in²	Hyperion ISO 179/1eA

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	15.0 - 20.0 µm/m-°C @Temperature 50.0 - 150 °C	8.33 - 11.1 µin/in-°F @Temperature 122 - 302 °F	ISO 11359-2
Thermal Conductivity	0.400 - 0.600 W/m-K	2.78 - 4.16 BTU-in/hr-ft²-°F	ASTM E1461
Maximum Service Temperature, Air	150 °C @Time 7.20e+7 sec	302 °F @Time 20000 hour	IEC 60216/T1
	230 °C @Time <=180000 sec	446 °F @Time <=50.0 hour	IEC 60216/T1
Deflection Temperature at 1.8 MPa (264 psi)	>= 200 °C	>= 392 °F	ISO 75-A
Deflection Temperature at 8.0 MPa	160 - 180 °C	320 - 356 °F	ISO 75-C
Flammability, UL94	V-0 @Thickness 1.50 mm	V-0 @Thickness 0.0591 in	
Shrinkage	<= 0.0500 % @Temperature 110 °C, Time 605000 sec	<= 0.0500 % @Temperature 230 °F, Time 168 hour	Post shrinkage; ISO 2577

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+12 - 1.00e+13 ohm-cm	1.00e+12 - 1.00e+13 ohm-cm	IEC 60093
Surface Resistance	1.00e+10 - 1.00e+11 ohm	1.00e+10 - 1.00e+11 ohm	IEC 60093
Dielectric Constant	4.00 - 6.00 @Frequency 1.00e+6 Hz	4.00 - 6.00 @Frequency 1.00e+6 Hz	IEC 60250
	6.00 - 8.00 @Frequency 100 Hz	6.00 - 8.00 @Frequency 100 Hz	IEC 60250
Dielectric Strength	20.0 - 30.0 kV/mm	508 - 762 kV/in	IEC 60243-1
Dissipation Factor	0.0200 - 0.0300 @Frequency 1.00e+6 Hz	0.0200 - 0.0300 @Frequency 1.00e+6 Hz	IEC 60250

Electrical Properties	Metric	English	Comments
	0.100 - 0.200 @Frequency 100 Hz	0.100 - 0.200 @Frequency 100 Hz	
Arc Resistance	180 - 240 sec	180 - 240 sec	ASTM D495
Comparative Tracking Index	>= 175 V	>= 175 V	IEC 60112

Processing Properties	Metric	English	Comments
Shelf Life	12.0 Month @Temperature 20.0 - 30.0 °C	12.0 Month @Temperature 68.0 - 86.0 °F	

Descriptive Properties	Value	Comments
Glow wire flammability test	960/1	IEC 60695 2-12
Glow wire ignitability test	960/1	IEC 60695 2-13
Water Absorption	<10 mg	24 hr, 23°C; ISO 62

Contact Songhan Plastic Technology Co.,Ltd.

Website : www.lookpolymers.com
Email : sales@lookpolymers.com
Tel : +86 021-51131842
Mobile : +86 13061808058
Skype : lookpolymers
Address : United North Road 215,Fengxian District, Shanghai City,China