

Raschig Group DECAL® 572R Phenolic

Category : Polymer , Thermoset , Phenolic

Material Notes:

Glass-fiber reinforced phenolic molding compound. Exceptional heat resistance with regard to maintaining surface finish and mechanical properties, outstanding mechanical properties, excellent rotational symmetry. 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: Compression molding Information provided by Raschig Group

Order this product through the following link:

http://www.lookpolymers.com/polymer_Raschig-Group-DECAL-572R-Phenolic.php

Physical Properties	Metric	English	Comments
Specific Gravity	1.70 - 1.80 g/cc	1.70 - 1.80 g/cc	ISO 1183
Apparent Bulk Density	0.700 - 0.900 g/cc	0.0253 - 0.0325 lb/in ³	ISO 60
Water Absorption	<= 0.200 % @Temperature 23.0 °C, Time 86400 sec	<= 0.200 % @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	Compression; ISO 2577

Mechanical Properties	Metric	English	Comments
Tensile Strength	50.0 - 70.0 MPa	7250 - 10200 psi	Compression; ISO 527
Modulus of Elasticity	8.00 - 10.0 GPa	1160 - 1450 ksi	Compression; ISO 527
Flexural Strength	80.0 - 100 MPa	11600 - 14500 psi	Compression; ISO 178
Flexural Modulus	11.0 - 14.0 GPa	1600 - 2030 ksi	Compression; ISO 178
Compressive Strength	200 - 250 MPa	29000 - 36300 psi	ISO 604
Charpy Impact Unnotched	0.600 - 0.900 J/cm ²	2.86 - 4.28 ft-lb/in ²	Compression; ISO 179/1eU
Charpy Impact, Notched	0.200 - 0.400 J/cm ²	0.952 - 1.90 ft-lb/in ²	Compression; 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- ft ² -°F	ASTM E1461
Deflection Temperature at 1.8 MPa	>= 180 °C	>= 356 °F	ISO 75-A

Thermal Properties	Metric	English	Comments
Deflection Temperature at 8.0 MPa	160 - 180 °C	320 - 356 °F	ISO 75-C
Flammability, UL94	V-0	V-0	
	@Thickness 1.50 mm	@Thickness 0.0591 in	
Shrinkage	<= 0.200 %	<= 0.200 %	Post shrinkage; ISO 2577
	@Temperature 110 °C, Time 605000 sec	@Temperature 230 °F, Time 168 hour	

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	4.00 - 6.00	IEC 60250
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
Dielectric Strength	6.00 - 8.00	6.00 - 8.00	IEC 60250
	@Frequency 100 Hz	@Frequency 100 Hz	
Dielectric Strength	20.0 - 30.0 kV/mm	508 - 762 kV/in	IEC 60243-1
Dissipation Factor	0.0200 - 0.0300	0.0200 - 0.0300	IEC 60250
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
Arc Resistance	0.100 - 0.200	0.100 - 0.200	IEC 60250
	@Frequency 100 Hz	@Frequency 100 Hz	
Arc Resistance	180 - 240 sec	180 - 240 sec	ASTM D495
Comparative Tracking Index	>= 225 V	>= 225 V	IEC 60112

Processing Properties	Metric	English	Comments
Shelf Life	6.00 Month	6.00 Month	
	@Temperature 20.0 - 30.0 °C	@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

Descriptive Properties

Value

Comments ISO 62

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