

Raschig Group DECAL® 666/8 Phenolic

Category : Polymer , Thermoset , Phenolic

Material Notes:

Glass-fiber reinforced phenolic molding compound with mineral fillers. High heat resistance, reduced mould shrinkage and post-shrinkage, good chemical resistance and 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: Compression molding Applications: Commutators Information provided by Raschig Group

Order this product through the following link:

http://www.lookpolymers.com/polymer_Raschig-Group-DECAL-6668-Phenolic.php

Physical Properties	Metric	English	Comments
Specific Gravity	1.65 - 1.85 g/cc	1.65 - 1.85 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	6.00 - 8.00 GPa	870 - 1160 ksi	Compression; ISO 527
Flexural Strength	100 - 130 MPa	14500 - 18900 psi	Compression; ISO 178
Flexural Modulus	6.00 - 9.00 GPa	870 - 1310 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	20.0 - 25.0 µm/m-°C @Temperature 50.0 - 150 °C	11.1 - 13.9 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	>= 200 °C	>= 392 °F	ISO 75-A

(264 psi) Thermal Properties	Metric	English	Comments
Deflection Temperature at 8.0 MPa	>= 180 °C	>= 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	
	6.00 - 8.00	6.00 - 8.00	IEC 60250
	@Frequency 100 Hz	@Frequency 100 Hz	
Dielectric Strength	25.0 - 35.0 kV/mm	635 - 889 kV/in	IEC 60243-1
Dissipation Factor	0.0100 - 0.0200	0.0100 - 0.0200	IEC 60250
	@Frequency 100 Hz	@Frequency 100 Hz	
	0.0200 - 0.0300	0.0200 - 0.0300	IEC 60250
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 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
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