

Raschig Group EPOXIDUR® 3580 EP Epoxy

Category : Polymer , Thermoset , Epoxy , Epoxy, Molded, Glass Fiber Filler , Filled/Reinforced Thermoset

Material Notes:

Glass-fiber reinforced and mineral filled epoxy molding compound. Good mechanical strength, very good electrical isolation properties even with thin wall thicknesses and high temperatures. 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 Primary application: Electrical parts Information provided by the Raschig Group

Order this product through the following link:

http://www.lookpolymers.com/polymer_Raschig-Group-EPOXIDUR-3580-EP-Epoxy.php

Physical Properties	Metric	English	Comments
Specific Gravity	1.90 - 2.00 g/cc	1.90 - 2.00 g/cc	ISO 1183
Apparent Bulk Density	0.600 - 0.900 g/cc	0.0217 - 0.0325 lb/in³	ISO 60
Water Absorption	<= 0.10 % @Temperature 23.0 °C, Time 86400 sec	<= 0.10 % @Temperature 73.4 °F, Time 24.0 hour	ISO 62
Linear Mold Shrinkage	0.0020 - 0.0040 cm/cm	0.0020 - 0.0040 in/in	(longitudinal) Injection and Compression; ISO 2577

Mechanical Properties	Metric	English	Comments
Tensile Strength, Yield	30.0 - 50.0 MPa	4350 - 7250 psi	Injection and Compression; ISO 527
Modulus of Elasticity	14.0 - 16.0 GPa	2030 - 2320 ksi	Injection and Compression; ISO 527
Flexural Strength	70.0 - 100 MPa	10200 - 14500 psi	Injection and Compression; ISO 178
Flexural Modulus	17.0 - 20.0 GPa	2470 - 2900 ksi	Injection and Compression; ISO 178
Compressive Strength	150 - 180 MPa	21800 - 26100 psi	ISO 604
Charpy Impact Unnotched	0.400 - 0.600 J/cm² @Temperature 23.0 °C	1.90 - 2.86 ft-lb/in² @Temperature 73.4 °F	Injection and Compression; ISO 179/1eU
Charpy Impact, Notched	0.200 - 0.400 J/cm² @Temperature 23.0 °C	0.952 - 1.90 ft-lb/in² @Temperature 73.4 °F	Injection and 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
		2.78 - 4.16 BTU-in/hr-	

Thermal Properties	Metric	English	Comments
Maximum Service Temperature, Air	180 °C	356 °F	IEC 60216/T1
	@Time 7.20e+7 sec	@Time 20000 hour	
	240 °C	464 °F	IEC 60216/T1
	@Time <=180000 sec	@Time <=50.0 hour	
Deflection Temperature at 0.46 MPa (66 psi)	>= 200 °C	>= 392 °F	Injection; ISO 75-B
Deflection Temperature at 1.8 MPa (264 psi)	>= 200 °C	>= 392 °F	Injection and Compression; ISO 75-A
Deflection Temperature at 8.0 MPa	180 - 200 °C	356 - 392 °F	Injection and Compression; ISO 75-C
Flammability, UL94	HB	HB	
	@Thickness 1.60 mm	@Thickness 0.0630 in	
	V-0	V-0	
	@Thickness 6.00 mm	@Thickness 0.236 in	
Shrinkage	<= 0.050 %	<= 0.050 %	ISO 2577
	@Temperature 110 °C, Time 605000 sec	@Temperature 230 °F, Time 168 hour	

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+15 - 1.00e+16 ohm-cm	1.00e+15 - 1.00e+16 ohm-cm	IEC 60093
Surface Resistance	1.00e+14 - 1.00e+15 ohm	1.00e+14 - 1.00e+15 ohm	IEC 60093
Dielectric Constant	4.0 - 6.0	4.0 - 6.0	IEC 60250
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
	5.0 - 7.0	5.0 - 7.0	IEC 60250
	@Frequency 100 Hz	@Frequency 100 Hz	
Dielectric Strength	30.0 - 40.0 kV/mm	762 - 1020 kV/in	IEC 60243-1
Dissipation Factor	0.010 - 0.030	0.010 - 0.030	IEC 60250
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
	0.030 - 0.050	0.030 - 0.050	IEC 60250
	@Frequency 100 Hz	@Frequency 100 Hz	
Comparative Tracking Index	>= 250 V	>= 250 V	CTI; IEC 60112

Electrical Properties	Metric	English	Comments
Processing Properties	Metric	English	Comments
Shelf Life	6.00 Month	6.00 Month	
	@Temperature <=20.0 °C	@Temperature <=68.0 °F	

Descriptive Properties	Value	Comments
Arc Resistance	4 Stufe	ASTM D495
Glow wire flammability test	900/1	IEC 60695 2-12
Glow wire ignitability test	900/1	IEC 60695 2-13
Water Absorption	<10 mg	24h/23°C; ISO 62

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