

Hexion Bakelite™ PF 2836 Phenolic Formaldehyde Resin, Improved Electrical Properties, Low Shrinkage, UL Listed &nbs

Category : Polymer , Thermoset , Filled/Reinforced Thermoset , Phenolic

Material Notes:

Phenolic molding compound, inorganically/organically filled, increased heat resistance, increased tracking resistance, low shrinkage and post shrinkage, improved electrical properties, UL listed molding compound 1.5 mm/V-0 (BK).Application areas: Lamp holders, electrical switch gears, relays, circuit prot. switches, carbon brush holders, clamp boards, insulating caps, sealing flanges, pump parts, armatures, roll bodies.Information provided by Bakelite AGBakelite AG became a part of Hexion in 2005.

Order this product through the following link:

http://www.lookpolymers.com/polymer_Hexion-Bakelite-PF-2836-Phenolic-Formaldehyde-Resin-Improved-Electrical-Properties-Low-Shrinkage-UL-Listed-nbs.php

Physical Properties	Metric	English	Comments
Density	1.64 g/cc	0.0592 lb/in ³	ISO 1183
Apparent Bulk Density	0.740 g/cc	0.0267 lb/in ³	ISO 60
Linear Mold Shrinkage, Flow	0.0040 cm/cm	0.0040 in/in	Injection molding; ISO 2577

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	45.0 MPa	6530 psi	5 mm/min; ISO 527 - 1/2
Tensile Modulus	11.0 GPa	1600 ksi	1 mm/min; ISO 527 - 1/2
Flexural Strength	85.0 MPa	12300 psi	2 mm/min; ISO 178
Flexural Modulus	10.5 GPa	1520 ksi	ISO 178
Charpy Impact Unnotched	0.500 J/cm ² @Temperature 23.0 °C	2.38 ft-lb/in ² @Temperature 73.4 °F	ISO 179-1/2 eU
Charpy Impact, Notched	0.140 J/cm ² @Temperature 23.0 °C	0.666 ft-lb/in ² @Temperature 73.4 °F	ISO 179-1/2 eA

Thermal Properties	Metric	English	Comments
Maximum Service Temperature, Air	150 °C	302 °F	<20000 hours; IEC 60216-P1
	200 °C	392 °F	< 50 hours; IEC 60216-P1
Deflection Temperature at 8.0 MPa	130 °C	266 °F	ISO 75-2
UL RTI, Electrical	150 °C @Thickness 1.50 mm	302 °F @Thickness 0.0591 in	(BK)

Thermal Properties	150 °C Metric	302 °F English	Comments
UL RTI, Mechanical with Impact	@Thickness 1.50 mm	@Thickness 0.0591 in	
UL RTI, Mechanical without Impact	150 °C @Thickness 1.50 mm	302 °F @Thickness 0.0591 in	(BK)
Flammability, UL94	V-0 @Thickness 1.50 mm	V-0 @Thickness 0.0591 in	(BK)
Shrinkage	0.200 % @Temperature 110 °C, Time 605000 sec	0.200 % @Temperature 230 °F, Time 168 hour	Injection molding; ISO 2577

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+11 ohm-cm	1.00e+11 ohm-cm	IEC 60093
Surface Resistance	1.00e+10 ohm	1.00e+10 ohm	IEC 60093
Dielectric Constant	8.0 @Frequency 100 Hz	8.0 @Frequency 100 Hz	IEC 60250
Dielectric Strength	25.0 kV/mm @Thickness 1.00 mm	635 kV/in @Thickness 0.0394 in	IEC 60243-P1
Dissipation Factor	0.15 @Frequency 100 Hz	0.15 @Frequency 100 Hz	IEC 60250
Arc Resistance	135 - 140 sec	135 - 140 sec	ASTM D495
Comparative Tracking Index	225 V	225 V	Test liquid A; IEC 60112
Hot Wire Ignition, HWI	>= 120 sec @Thickness 1.50 mm	>= 120 sec @Thickness 0.0591 in	(BK)
High Amp Arc Ignition, HAI	30 - 60 arcs @Thickness 1.50 mm	30 - 60 arcs @Thickness 0.0591 in	(BK)

Processing Properties	Metric	English	Comments
Feed Temperature	60.0 - 75.0 °C	140 - 167 °F	Injection molding
Nozzle Temperature	80.0 - 100 °C	176 - 212 °F	Injection molding
Melt Temperature	80.0 - 100 °C	176 - 212 °F	Injection molding
Mold Temperature	160 - 190 °C	320 - 374 °F	Injection molding
	160 - 190 °C	320 - 374 °F	Compression molding

Processing Properties	Metric	English	Comments
Injection Pressure	≥ 15.0 MPa	≥ 2180 psi	Compression and injection cavity mold pressure
Back Pressure	0.500 - 2.00 MPa	72.5 - 290 psi	Injection molding
Cure Time	0.167 - 0.333 min	0.00278 - 0.00556 hour	Per 1 mm of wall thickness, injection molding
	0.333 - 0.667 min	0.00556 - 0.0111 hour	Per 1 mm of wall thickness, compression molding

Descriptive Properties	Value	Comments
Chromatic Spectrum	All Colors	
Creep Rupture Strength	Very Good	
Holding Pressure	Approximately 40-60% of injection pressure	
Media Resistance	Very Good	
Moisture Absorption	25 mg	ISO 62, 24 hours at 23°C
Reserves by Peak Temperature	Very High	
Thermal Expansion	Very Slight	

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