

Hexion Bakelite™ PF 6506 Phenolic Formaldehyde Resin, Low Shrinkage, Resistant to High Temperatures, UL Listed & nbs

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

Material Notes:

Phenolic molding compound, inorganically filled, glass fiber reinforced, high dimensional stability at raised temperature, good media resistance, heat-resistant, UL listed molding compound 1.5 mm/V-0 (ALL). Application areas: Thermally and dynamically highly stressed parts in automotive field, pulleys. 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-6506-Phenolic-Formaldehyde-Resin-Low-Shrinkage-Resistant-to-High-Temperatures-UL-Listed-nbs.php

Physical Properties	Metric	English	Comments
Density	1.72 g/cc	0.0621 lb/in ³	ISO 1183
Apparent Bulk Density	0.740 g/cc	0.0267 lb/in ³	ISO 60
Linear Mold Shrinkage, Flow	0.0020 cm/cm	0.0020 in/in	Injection molding; ISO 2577

Mechanical Properties	Metric	English	Comments
Ball Indentation Hardness	500 MPa	72500 psi	H 961/30; ISO 2039/P1
Flexural Strength	140 MPa	20300 psi	2 mm/min; ISO 178
Flexural Modulus	13.5 GPa	1960 ksi	ISO 178
Compressive Strength	250 MPa	36300 psi	Test specimen flat tested; ISO 604
Charpy Impact Unnotched	1.00 J/cm ²	4.76 ft-lb/in ²	ISO 179-1/2 eU
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Charpy Impact, Notched	0.200 J/cm ²	0.952 ft-lb/in ²	ISO 179-1/2 eA
	@Temperature 23.0 °C	@Temperature 73.4 °F	

Thermal Properties	Metric	English	Comments
Maximum Service Temperature, Air	175 °C	347 °F	<20000 hours; IEC 60216-P1
	220 °C	428 °F	< 50 hours; IEC 60216-P1
Deflection Temperature at 8.0 MPa	190 °C	374 °F	ISO 75-2
Flammability, UL94	V-0	V-0	(ALL)
	@Thickness 1.50 mm	@Thickness 0.0591 in	
	0.000 %	0.000 %	

Shrinkage Thermal Properties	Metric @ Temperature 110 °C, Time 605000 sec	English @ Temperature 230 °F, Time 168 hour	Injection molding; ISO 2577 Comments
---------------------------------	--	---	---

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+12 ohm-cm	1.00e+12 ohm-cm	IEC 60093
Surface Resistance	1.00e+11 ohm	1.00e+11 ohm	IEC 60093
Dielectric Constant	7.0 @Frequency 100 Hz	7.0 @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	0.060 @Frequency 100 Hz	0.060 @Frequency 100 Hz	IEC 60250
Arc Resistance	125 - 130 sec	125 - 130 sec	ASTM D495
Comparative Tracking Index	150 V	150 V	Test liquid A; IEC 60112

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
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	

Descriptive Properties	Value	Comments
Moisture Absorption	9 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