

## Hexion Bakelite™ 151733 Phenolic Formaldehyde Resin (discontinued \*\*)

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

### Material Notes:

Phenolic molding compound, mainly organically filled, standard molding compound for normal stress. Application areas: Contact strips. 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-151733-Phenolic-Formaldehyde-Resin-nbspdiscontinued-.php](http://www.lookpolymers.com/polymer_Hexion-Bakelite-151733-Phenolic-Formaldehyde-Resin-nbspdiscontinued-.php)

Physical Properties	Metric	English	Comments
Density	1.45 g/cc	0.0524 lb/in <sup>3</sup>	ISO 1183
Apparent Bulk Density	0.640 g/cc	0.0231 lb/in <sup>3</sup>	ISO 60
Linear Mold Shrinkage, Flow	0.0076 cm/cm	0.0076 in/in	Injection molding; ISO 2577

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	50.0 MPa	7250 psi	5 mm/min; ISO 527 - 1/2
Tensile Modulus	7.50 GPa	1090 ksi	1 mm/min; ISO 527 - 1/2
Flexural Strength	90.0 MPa	13100 psi	2 mm/min; ISO 178
Flexural Modulus	8.00 GPa	1160 ksi	ISO 178
Compressive Strength	225 MPa	32600 psi	Test specimen flat tested; ISO 604
Charpy Impact Unnotched	0.650 J/cm <sup>2</sup> @Temperature 23.0 °C	3.09 ft-lb/in <sup>2</sup> @Temperature 73.4 °F	ISO 179-1/2 eU
Charpy Impact, Notched	0.160 J/cm <sup>2</sup> @Temperature 23.0 °C	0.761 ft-lb/in <sup>2</sup> @Temperature 73.4 °F	ISO 179-1/2 eA

Thermal Properties	Metric	English	Comments
Deflection Temperature at 8.0 MPa	120 °C	248 °F	ISO 75-2
Shrinkage	0.560 % @Temperature 110 °C, Time 605000 sec	0.560 % @Temperature 230 °F, Time 168 hour	Injection molding; ISO 2577

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

Electrical Properties	Metric	English	Comments
Dielectric Constant	@Frequency 100 Hz	@Frequency 100 Hz	
Dielectric Strength	22.0 kV/mm @Thickness 1.00 mm	559 kV/in @Thickness 0.0394 in	IEC 60243-P1
Dissipation Factor	0.38 @Frequency 100 Hz	0.38 @Frequency 100 Hz	IEC 60250

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	Subdued Colors	
Creep Rupture Strength	Good	
Holding Pressure	Approximately 40-60% of injection pressure	
Media Resistance	Good	
Moisture Absorption	64 mg	ISO 62, 24 hours at 23°C
Reserves by Peak Temperature	High	
Thermal Expansion	Slight	

**Contact Songhan Plastic Technology Co.,Ltd.**

Website : [www.lookpolymers.com](http://www.lookpolymers.com)

Email : [sales@lookpolymers.com](mailto:sales@lookpolymers.com)

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

Address : United North Road 215, Fengxian District, Shanghai City, China