

## Sumitomo Bakelite DurezÂ® 118 Phenolic, Injection Grade

Category : Polymer , Thermoset , Phenolic

### Material Notes:

Durez 118 Black Phenolic is a two-stage, asbestos free, general purpose molding material. It exhibits improved impact strength and resistance to flexural fatigue for demanding automotive, electrical and appliance applications. Shrinkage and mechanical strengths are closely controlled to meet part reliability requirements. Information provided by Sumitomo Bakelite North America, Inc.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Sumitomo-Bakelite-Durez-118-Phenolic-Injection-Grade.php](http://www.lookpolymers.com/polymer_Sumitomo-Bakelite-Durez-118-Phenolic-Injection-Grade.php)

Physical Properties	Metric	English	Comments
Density	1.40 g/cc	0.0506 lb/in <sup>3</sup>	ASTM D792
Apparent Bulk Density	0.580 g/cc	0.0210 lb/in <sup>3</sup>	ASTM D1895
Water Absorption	0.50 %	0.50 %	ASTM D570
Linear Mold Shrinkage	0.011 cm/cm	0.011 in/in	ASTM D955

Mechanical Properties	Metric	English	Comments
Tensile Strength, Ultimate	48.0 MPa	6960 psi	ASTM D638
Tensile Modulus	8.30 GPa	1200 ksi	ASTM D638
Flexural Strength	69.0 MPa	10000 psi	
Compressive Strength	207 MPa	30000 psi	ASTM D695

Thermal Properties	Metric	English	Comments
Maximum Service Temperature, Air	150 Â°C	302 Â°F	UL temperature Index
Deflection Temperature at 1.8 MPa (264 psi)	149 Â°C	300 Â°F	ASTM D648
Flammability, UL94	HB	HB	
	@Thickness 1.50 mm	@Thickness 0.0591 in	
	V-1	V-1	
	@Thickness 3.00 mm	@Thickness 0.118 in	

Electrical Properties	Metric	English	Comments
Electrical Resistivity	1.00e+11 ohm-cm	1.00e+11 ohm-cm	ASTM D257
Dielectric Constant	5.5	5.5	ASTM D150

Electrical Properties	@Frequency 1e+6 Hz Metric	@Frequency 1e+6 Hz English	Comments
Dielectric Strength	6.90 kV/mm	175 kV/in	Step by step; ASTM D149
	8.80 kV/mm	224 kV/in	Short Time; ASTM D149
Dissipation Factor	0.060	0.060	ASTM D150
	@Frequency 1e+6 Hz	@Frequency 1e+6 Hz	

## Contact Songhan Plastic Technology Co.,Ltd.

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