

## Sumitomo Bakelite Durez<sup>®</sup> 118 Phenolic, Compression 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-Compression-Grade.php](http://www.lookpolymers.com/polymer_Sumitomo-Bakelite-Durez-118-Phenolic-Compression-Grade.php)

Physical Properties	Metric	English	Comments
Density	1.4 g/cc	0.051 lb/in <sup>3</sup>	ASTM D792
Apparent Bulk Density	0.58 g/cc	0.021 lb/in <sup>3</sup>	ASTM D1895
Water Absorption	0.5 %	0.5 %	ASTM D570
Linear Mold Shrinkage	0.007 cm/cm	0.007 in/in	ASTM D955

Mechanical Properties	Metric	English	Comments
Tensile Strength, Ultimate	55 MPa	8000 psi	ASTM D638
Tensile Modulus	9.6 GPa	1400 ksi	ASTM D638
Flexural Strength	76 MPa	11000 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)	171 Â°C	340 Â°F	ASTM D648
Flammability, UL94	V-1	V-1	
	@Thickness 3.0 mm	@Thickness 0.12 in	
	V-0	V-0	
	@Thickness 6.0 mm	@Thickness 0.24 in	

Electrical Properties	Metric	English	Comments
Electrical Resistivity	1.0e+11 ohm-cm	1.0e+11 ohm-cm	ASTM D257
Dielectric Constant	4.7	4.7	ASTM D150

Electrical Properties	@Frequency 1e+6 Hz Metric	@Frequency 1e+6 Hz English	Comments
Dielectric Strength	13.8 kV/mm	351 kV/in	Step by step; ASTM D149
	15.7 kV/mm	399 kV/in	Short Time; ASTM D149
Dissipation Factor	0.05	0.05	ASTM D150
	@Frequency 1e+6 Hz	@Frequency 1e+6 Hz	

## Contact Songhan Plastic Technology Co.,Ltd.

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