

## Plenco 3509 Phenolic, Granular, Transfer Molded

Category : Polymer , Thermoset , Filled/Reinforced Thermoset , Phenolic , Phenolic, Novolac, Mineral/Flock Filled

### Material Notes:

PLENCO 03509 is a mineral and flock filled phenolic molding compound offering excellent electrical properties, dimensional stability, and improved heat resistance. UL recognized under component file E40654. 03509 is available in black or brown. Information supplied by Plenco.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Plenco-3509-Phenolic-Granular-Transfer-Molded.php](http://www.lookpolymers.com/polymer_Plenco-3509-Phenolic-Granular-Transfer-Molded.php)

Physical Properties	Metric	English	Comments
Bulk Density	0.640 g/cc	0.0231 lb/in <sup>3</sup>	ASTM D1895
Density	1.60 g/cc	0.0578 lb/in <sup>3</sup>	ASTM D792
Water Absorption	0.139 %	0.139 %	ASTM D570
Linear Mold Shrinkage	0.00298 cm/cm	0.00298 in/in	ASTM D955

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell E	85	85	ASTM D785
Tensile Strength, Ultimate	60.0 MPa	8700 psi	ASTM D638
Elongation at Break	0.80 %	0.80 %	ASTM D638
Tensile Modulus	10.9 GPa	1580 ksi	ASTM D638
Flexural Strength	100 MPa	14500 psi	ASTM D790
Flexural Modulus	9.80 GPa	1420 ksi	ASTM D790
Compressive Strength	199 MPa	28900 psi	ASTM D695
Izod Impact, Notched	0.196 J/cm	0.367 ft-lb/in	ASTM D256
Charpy Impact, Notched	0.222 J/cm <sup>2</sup>	1.06 ft-lb/in <sup>2</sup>	ASTM D256
Impact	130	130	J/m Drop Ball Impact; PLENCO

Thermal Properties	Metric	English	Comments
CTE, linear	47.0 μm/m-°C	26.1 μin/in-°F	TMA; ASTM E831
	@Temperature 40.0 - 130 °C	@Temperature 104 - 266 °F	
Maximum Service Temperature, Air	203 °C	397 °F	Heat Resistance; ASTM D570D

Thermal Properties <small>Deflection Temperature at 1.8 MPa (100 psi)</small>	193 °C Metric	379 °F English	ASTM D249 Comments
Flammability, UL94	V-0  @Thickness 3.00 mm	V-0  @Thickness 0.118 in	
Oxygen Index	38 %	38 %	ASTM D2863
Shrinkage	0.125 %	0.125 %	72 hr, 120°C; ASTM D1299

Electrical Properties	Metric	English	Comments
Volume Resistivity	4.30e+11 ohm-cm	4.30e+11 ohm-cm	ASTM D247
Dielectric Constant	5.3	5.3	ASTM D150
Dielectric Strength	11.6 kV/mm	295 kV/in	Step by Step; ASTM D149
	15.6 kV/mm	396 kV/in	Short Time; ASTM D149
Dissipation Factor	0.041	0.041	ASTM D150
Arc Resistance	159 sec	159 sec	ASTM D495
Comparative Tracking Index	175 V	175 V	ASTM D3638

## Contact Songhan Plastic Technology Co.,Ltd.

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