

## Plenco 7100 Phenolic, Nodular, Injection Molded

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

### Material Notes:

PLENCO 07100 is an organic fiber reinforced phenolic molding compound, with improved mechanical strength properties and an industrial finish. 07100 is densified for easy handling and good pourability. UL recognized under component file E40654. 07100 is available in black. Information supplied by Plenco.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Plenco-7100-Phenolic-Nodular-Injection-Molded.php](http://www.lookpolymers.com/polymer_Plenco-7100-Phenolic-Nodular-Injection-Molded.php)

Physical Properties	Metric	English	Comments
Bulk Density	0.600 g/cc	0.0217 lb/in <sup>3</sup>	ASTM D1895
Density	1.40 g/cc	0.0506 lb/in <sup>3</sup>	ASTM D792
Water Absorption	0.55 %	0.55 %	ASTM D570
Linear Mold Shrinkage	0.0085 cm/cm	0.0085 in/in	ASTM D955

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell E	78	78	ASTM D785
Tensile Strength, Ultimate	52.0 MPa	7540 psi	ASTM D638
Elongation at Break	0.79 %	0.79 %	ASTM D638
Tensile Modulus	7.80 GPa	1130 ksi	ASTM D638
Flexural Strength	72.0 MPa	10400 psi	ASTM D790
Flexural Modulus	6.40 GPa	928 ksi	ASTM D790
Compressive Strength	182 MPa	26400 psi	ASTM D695
Poissons Ratio	0.30	0.30	ASTM D638
Shear Modulus	3.00 GPa	435 ksi	Calculated
Izod Impact, Notched	0.240 J/cm	0.450 ft-lb/in	ASTM D256
Charpy Impact, Notched	0.227 J/cm <sup>2</sup>	1.08 ft-lb/in <sup>2</sup>	ASTM D256
Impact	193	193	J/m Drop Ball Impact; PLENCO

Thermal Properties	Metric	English	Comments
CTE, linear	51.0 $\mu\text{m}/\text{m}\cdot^\circ\text{C}$	28.3 $\mu\text{in}/\text{in}\cdot^\circ\text{F}$	TMA; ASTM E831
	@Temperature 40.0 -	@Temperature 104 -	

Thermal Properties	130 °C Metric	266 °F English	Comments
Thermal Conductivity	0.400 W/m-K @Temperature 100 °C	2.78 BTU-in/hr-ft <sup>2</sup> -°F @Temperature 212 °F	ASTM E1461
Maximum Service Temperature, Air	183 °C	361 °F	Heat Resistance; ASTM D570D
Deflection Temperature at 1.8 MPa (264 psi)	156 °C	313 °F	ASTM D648
Flammability, UL94	V-0 @Thickness 6.00 mm	V-0 @Thickness 0.236 in	
Oxygen Index	27.1 %	27.1 %	ASTM D2863
Shrinkage	0.39 %	0.39 %	72 hr, 120°C; ASTM D1299

Electrical Properties	Metric	English	Comments
Volume Resistivity	6.60e+11 ohm-cm	6.60e+11 ohm-cm	ASTM D247
Dielectric Constant	5.1	5.1	ASTM D150
Dielectric Strength	9.70 kV/mm	246 kV/in	Short Time; ASTM D149
Dissipation Factor	0.055	0.055	ASTM D150
Arc Resistance	120 sec	120 sec	ASTM D495
Comparative Tracking Index	175 V	175 V	ASTM D3638

## Contact Songhan Plastic Technology Co.,Ltd.

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