

## Plenco 4301 Phenolic, Granular, Injection Molded

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

### Material Notes:

PLENCO 04301 is a heat resistant, mineral filled phenolic molding compound offering excellent dimensional stability and electrical properties. UL recognized under component file E40654. 04301 is available in black. Information supplied by Plenco.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Plenco-4301-Phenolic-Granular-Injection-Molded.php](http://www.lookpolymers.com/polymer_Plenco-4301-Phenolic-Granular-Injection-Molded.php)

Physical Properties	Metric	English	Comments
Bulk Density	0.620 g/cc	0.0224 lb/in <sup>3</sup>	ASTM D1895
Density	1.51 g/cc	0.0546 lb/in <sup>3</sup>	ASTM D792
Water Absorption	0.19 %	0.19 %	ASTM D570
Linear Mold Shrinkage	0.0073 cm/cm	0.0073 in/in	ASTM D955

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell E	79	79	ASTM D785
Tensile Strength, Ultimate	50.0 MPa	7250 psi	ASTM D638
Elongation at Break	0.70 %	0.70 %	ASTM D638
Tensile Modulus	8.40 GPa	1220 ksi	ASTM D638
Flexural Strength	79.0 MPa	11500 psi	ASTM D790
Flexural Modulus	7.80 GPa	1130 ksi	ASTM D790
Compressive Strength	182 MPa	26400 psi	ASTM D695
Poissons Ratio	0.33	0.33	ASTM D638
Shear Modulus	3.16 GPa	458 ksi	Calculated
Izod Impact, Notched	0.138 J/cm	0.259 ft-lb/in	ASTM D256
Charpy Impact, Notched	0.153 J/cm <sup>2</sup>	0.728 ft-lb/in <sup>2</sup>	ASTM D256
Impact	83	83	J/m Drop Ball Impact; PLENCO

Thermal Properties	Metric	English	Comments
CTE, linear	44.0 µm/m-°C	24.4 µin/in-°F	TMA; ASTM E831
	@Temperature 40.0 - 130 °C	@Temperature 104 - 266 °F	

Thermal Properties	Metric	English	Comments
Deflection Temperature at 1.8 MPa (264 psi)	173 °C	343 °F	ASTM D648
Flammability, UL94	V-0 @Thickness 1.50 mm	V-0 @Thickness 0.0591 in	
Oxygen Index	40 %	40 %	ASTM D2863
Shrinkage	0.224 %	0.224 %	72 hr, 120°C; ASTM D1299

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.70e+11 ohm-cm	1.70e+11 ohm-cm	ASTM D247
Dielectric Constant	5.4	5.4	ASTM D150
Dielectric Strength	7.20 kV/mm	183 kV/in	Step by Step; ASTM D149
	10.6 kV/mm	269 kV/in	Short Time; ASTM D149
Dissipation Factor	0.060	0.060	ASTM D150
Arc Resistance	161 sec	161 sec	ASTM D495
Comparative Tracking Index	175 V	175 V	ASTM D3638

## Contact Songhan Plastic Technology Co.,Ltd.

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