

## Plenco 4300 Phenolic, Granular, Compression Molded

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

**Material Notes:**

PLENCO 04300 is a heat resistant, mineral filled phenolic molding compound offering optimum cure characteristics and excellent dimensional stability. It is formulated for wiring devices and electrical control applications. Type ASTM 5948 CFG, and UL recognized under component file E40654. 04300 is available in black. Information supplied by Plenco.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Plenco-4300-Phenolic-Granular-Compression-Molded.php](http://www.lookpolymers.com/polymer_Plenco-4300-Phenolic-Granular-Compression-Molded.php)

Physical Properties	Metric	English	Comments
Bulk Density	0.720 g/cc	0.0260 lb/in <sup>3</sup>	ASTM D1895
Density	1.57 g/cc	0.0567 lb/in <sup>3</sup>	ASTM D792
Water Absorption	0.18 %	0.18 %	ASTM D570
Linear Mold Shrinkage	0.0031 cm/cm	0.0031 in/in	ASTM D955

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell E	84	84	ASTM D785
Tensile Strength, Ultimate	44.0 MPa	6380 psi	ASTM D638
Elongation at Break	0.44 %	0.44 %	ASTM D638
Tensile Modulus	11.0 GPa	1600 ksi	ASTM D638
Flexural Strength	76.0 MPa	11000 psi	ASTM D790
Flexural Modulus	10.5 GPa	1520 ksi	ASTM D790
Compressive Strength	195 MPa	28300 psi	ASTM D695
Izod Impact, Notched	0.160 J/cm	0.300 ft-lb/in	ASTM D256
Charpy Impact, Notched	0.208 J/cm <sup>2</sup>	0.990 ft-lb/in <sup>2</sup>	ASTM D256
Impact	102	102	J/m Drop Ball Impact; PLENCO

Thermal Properties	Metric	English	Comments
CTE, linear	52.0 $\mu\text{m}/\text{m}\cdot\text{C}$	28.9 $\mu\text{in}/\text{in}\cdot\text{F}$	TMA; ASTM E831
	@Temperature 40.0 - 130 °C	@Temperature 104 - 266 °F	
Thermal Conductivity	0.540 W/m-K	3.75 BTU-in/hr-ft <sup>2</sup> -°F	ASTM E1461

Thermal Properties	@Temperature 100 °C Metric	@Temperature 212 °F English	Comments
Maximum Service Temperature, Air	203 °C	397 °F	Heat Resistance; ASTM D570D
Deflection Temperature at 1.8 MPa (264 psi)	197 °C	387 °F	ASTM D648
Flammability, UL94	V-0 @Thickness 1.50 mm	V-0 @Thickness 0.0591 in	
Oxygen Index	28 %	28 %	ASTM D2863
Shrinkage	0.112 %	0.112 %	72 hr, 120°C; ASTM D1299

Electrical Properties	Metric	English	Comments
Volume Resistivity	2.50e+12 ohm-cm	2.50e+12 ohm-cm	ASTM D247
Dielectric Constant	5.1	5.1	ASTM D150
Dielectric Strength	14.9 kV/mm	378 kV/in	Short Time; ASTM D149
Dissipation Factor	0.038	0.038	ASTM D150
Arc Resistance	180 sec	180 sec	ASTM D495
Comparative Tracking Index	175 V	175 V	ASTM D3638

## Contact Songhan Plastic Technology Co.,Ltd.

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