

## Omnia Plastica Noryl® PPO m Polyphenylenoxide

Category : Polymer , Thermoplastic , Polyphenylene Ether/PPO , Polyphenylene Ether, Molded , Polystyrene (PS)

### Material Notes:

Noryl is a resin based on polyphenylene oxide, modified with styrene. Its main field of application is the electrical one. Features: Good electrical properties, even at high frequency Dimensional stability, low moisture absorption Excellent stability Gamma ray resistance Colour grey Weak Point: It has poor mechanical features Application: Electrical: Used particularly for its electrical properties. Suitable for high frequency insulators and components in the electronic industry. Mechanical: It has poor mechanical properties. Good gamma ray resistance. Food contact: It is not used in contact with food. Chemical: The resistance is poor and it is not used for chemical applications. Information provided by Omnia Plastica s.p.a. for semifinished products such as sheet, rod, and tube.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Omnia-Plastica-Noryl-PPO-m-Polyphenylenoxide.php](http://www.lookpolymers.com/polymer_Omnia-Plastica-Noryl-PPO-m-Polyphenylenoxide.php)

Physical Properties	Metric	English	Comments
Density	1.27 g/cc	0.0459 lb/in <sup>3</sup>	ISO.1183 DIN.53479
Moisture Absorption at Equilibrium	0.10 %	0.10 %	50% relative humidity
Water Absorption at Saturation	0.30 %	0.30 %	23°C

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell M	84	84	dry sample; ISO2039.2
Ball Indentation Hardness	100 MPa	14500 psi	ISO2039.1 DIN.53456
Tensile Strength at Break	45.0 MPa	6530 psi	ISO.527 DIN.53455
Elongation at Break	60 %	60 %	ISO.527 DIN.53455
Tensile Modulus	2.30 GPa	334 ksi	ISO.527 DIN.53455
Compressive Strength	16.0 MPa	2320 psi	1% strain over 1000 hours; ISO.899 DIN.53444
Charpy Impact Unnotched	NB	NB	7.5 J; ISO.R179 DIN.53453
Charpy Impact, Notched	1.50 J/cm <sup>2</sup>	7.14 ft-lb/in <sup>2</sup>	ISO179/3C DIN.53453
Coefficient of Friction, Dynamic	0.50	0.50	on dry ground steel; load =0.05MPa; speed =0.6 m/s

Thermal Properties	Metric	English	Comments
CTE, linear	60.0 µm/m-°C	33.3 µin/in-°F	
	@Temperature 23.0 - 60.0 °C	@Temperature 73.4 - 140 °F	
Thermal Conductivity	0.220 W/m-K	1.53 BTU-in/hr-ft <sup>2</sup> -°F	DIN.52612

Thermal Properties	Metric	English	Comments
Maximum Service Temperature, Air	90.0 °C	194 °F	Maximum operating temperature continuously for 5000 hours based on a tensile stress of 50% at 23° C.
	105 °C	221 °F	short period, no load
Deflection Temperature at 1.8 MPa (264 psi)	130 °C	266 °F	ISO.75 DIN.53461
Minimum Service Temperature, Air	-20.0 °C	-4.00 °F	impact conditions and heavy loads not considered
Flammability, UL94	HB	HB	
Oxygen Index	26 %	26 %	ISO.4589

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+15 ohm-cm	1.00e+15 ohm-cm	ISO.93 DIN.53482
Dielectric Constant	3.0	3.0	ISO.250 DIN.53483
	@Frequency 1e+6 Hz	@Frequency 1e+6 Hz	
Dielectric Strength	22.0 kV/mm	559 kV/in	ISO.243 DIN.53481
Dissipation Factor	0.020	0.020	ISO.250 DIN.53483
	@Frequency 1e+6 Hz	@Frequency 1e+6 Hz	

Descriptive Properties	Value	Comments
Form	Amorphous	

## Contact Songhan Plastic Technology Co.,Ltd.

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