

Ensinger NORYL® Polyphenylene oxide (PPO)

Category : Polymer , Thermoplastic , Polyphenylene Ether/PPO

Material Notes:

NORYL®, due to its inherent chemical composition, exhibits unusually low moisture absorption. Therefore, good electrical insulating properties are realized over a wide range of humidity and temperature conditions. Chemical attack from water, most salt solution, acids and bases is also minimal with NORYL®. The addition of glass fiber reinforcement enhances both the mechanical and thermal properties of the basic NORYL® material. Good electrical insulating properties (Due to its extremely low water absorption with values as low as 0.07%, NORYL® is an excellent electrical insulating material. Long-term dimensional stability. Superior impact strength (NORYL® exhibits a continuous use temperature in excess of 220° Wide ranger of UL flammability ratings from UL94 HB to UL94 V-1 FDA compliance for certain grades. Light weight (NORYL®, with a density of 0.0383 lbs/in³, can be used in applications where weight is a significant consideration). Thermoformable capability. Possesses good hydrolytic stability. Information Provided by Ensinger Industries, Inc.

Order this product through the following link:

http://www.lookpolymers.com/polymer_Ensinger-NORYL-Polyphenylene-oxide-PPO.php

Physical Properties	Metric	English	Comments
Specific Gravity	1.08 g/cc	1.08 g/cc	ASTM D792
Density	1.06 g/cc	0.0383 lb/in ³	ASTM D792
Water Absorption	0.070 % @Temperature 22.8 °C, Time 86400 sec	0.070 % @Temperature 73.0 °F, Time 24.0 hour	ASTM D570

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell R	119	119	ASTM D785
Tensile Strength at Break	63.4 MPa @Temperature 22.8 °C	9200 psi @Temperature 73.0 °F	ASTM D638
Elongation at Break	25 % @Temperature 22.8 °C	25 % @Temperature 73.0 °F	ASTM D638
Tensile Modulus	2.41 GPa @Temperature 22.8 °C	350 ksi @Temperature 73.0 °F	ASTM D638
Flexural Strength	92.4 MPa @Temperature 22.8 °C	13400 psi @Temperature 73.0 °F	ASTM D790
Flexural Modulus	2.55 GPa @Temperature 22.8 °C	370 ksi @Temperature 73.0 °F	ASTM D790
Izod Impact, Notched	1.87 J/cm	3.50 ft-lb/in	ASTM D256

Mechanical Properties	@Temperature 22.8 °C Metric	@Temperature 73.0 °F English	Comments
Coefficient of Friction, Dynamic	0.39 @Pressure 0.276 MPa	0.39 @Pressure 40.0 psi	50 fpm
Coefficient of Friction, Static	0.32 @Pressure 0.276 MPa	0.32 @Pressure 40.0 psi	

Thermal Properties	Metric	English	Comments
CTE, linear	59.4 µm/m-°C @Temperature -17.8 - 60.0 °C	33.0 µin/in-°F @Temperature 0.000 - 140 °F	ASTM D696
Maximum Service Temperature, Air	104 °C	220 °F	Long Term
	110 °C	230 °F	Intermittent
Deflection Temperature at 0.46 MPa (66 psi)	137 °C	279 °F	ASTM D648
Deflection Temperature at 1.8 MPa (264 psi)	123 °C	254 °F	ASTM D648
Vicat Softening Point	154 °C	310 °F	
Flammability, UL94	V-1	V-1	

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+17 ohm-cm @Temperature 22.8 °C	1.00e+17 ohm-cm @Temperature 73.0 °F	ASTM D257
Dielectric Constant	2.7 @Frequency 60.0 Hz, Temperature 22.8 °C	2.7 @Frequency 60.0 Hz, Temperature 73.0 °F	50% RH; ASTM D150
Dielectric Strength	19.7 kV/mm	500 kV/in	ASTM D149
Dissipation Factor	0.00070 @Frequency 60.0 Hz, Temperature 22.8 °C	0.00070 @Frequency 60.0 Hz, Temperature 73.0 °F	ASTM D150

Contact Songhan Plastic Technology Co.,Ltd.

Website : www.lookpolymers.com

Email : sales@lookpolymers.com

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

Address : United North Road 215, Fengxian District, Shanghai City, China