



NORYL

polyphenylene oxide, modified

Physical Properties	Metric	English	Comments
Specific Gravity	1.08 g/cc	0.039 lb/in ³	ASTM D792
Water Absorption	0.1 %	0.1 %	Immersion, 24hr; ASTM D570(2)
Mechanical Properties			
Hardness, Rockwell M	92	92	ASTM D785
Tensile Strength, Ultimate	57.2 MPa	8300 psi	ASTM D638
Elongation at Break	23 %	23 %	ASTM D638
Tensile Modulus	2.53 GPa	367 ksi	ASTM D638
Flexural Modulus	2.74 GPa	397 ksi	ASTM D790
Flexural Yield Strength	88.9 MPa	12900 psi	ASTM D790
Compressive Strength	91 MPa	13200 psi	10% Def.; ASTM D695
Compressive Modulus	2.18 GPa	316 ksi	ASTM D695
Shear Strength	57.2 MPa	8300 psi	ASTM D732
Izod Impact, Notched	1.55 J/cm	2.9 ft-lb/in	ASTM D256 Type A
Electrical Properties			
Dielectric Strength	27.6 kV/mm	701 V/mil	Short Term; ASTM D149
Thermal Properties			
CTE, linear 68°F	64.1 μm/m-°C	35.6 μin/in-°F	(-40°F to 300°F); ASTM E831
Maximum Service Temperature, Air	93.3 °C	200 °F	Long Term
Deflection Temperature at 1.8 MPa (264 psi)	127 °C	260 °F	ASTM D648
Glass Temperature	140 °C	284 °F	ASTM D3418
Flammability, UL94 (Estimated Rating)	V-1	V-1	1/8 inch
Qualitative Processing Properties			
Compliance - FDA	Not Compliant		
Machinability	6	1-10, 1=Easier to Machine	
Service in Alcohols	Acceptable		
Service in Aliphatic Hydrocarbons	Limited		
Service in Aromatic Hydrocarbons	Unacceptable		
Service in Chlorinated Solvents	Unacceptable		
Service in Ethers	Limited		
Service in Ketones	Unacceptable		
Service in Strong Acids	Unacceptable		
Service in Strong Alkalies	Unacceptable		
Service in Sunlight	Limited		
Service in Weak Acids	Acceptable		
Service in Weak Alkalies	Acceptable		

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