Saint-Gobain NortonÂ® ECTFE Fluoropolymer Film

Category : Polymer , Film , Thermoplastic , Fluoropolymer , ETFE/ECTFE

Material Notes:

Features/Benefits:Outstanding release propertiesPerformance from -200Â°C (-328Â°F) to 165Â°C (330Â°F)High dielectric strengthExcellent chemical, radiation, weather and abrasion resistanceNon-flammableThermoformableProduct thicknesses from 0.0005" (0.013 mm) to 0.010" (0.254 mm)Width up to 60" (1524 mm)Blue, clear, and white colorsAll films are manufactured and converted in class 100,000 clean room facilityNortonÂ® ECTFE fluoropolymer film is manufactured from ethylene-chlorotrifluoroethylene (HalarÂ®, a registered trademark of Ausimont USA, Inc) resin by Saint-Gobain Advanced Films and Fabrics. This material offers the outstanding performance of fluoropolymer film over a temperature range from cryogenic -200Â°C (-328Â°F) to 165Â°C (330Â°F).NortonÂ® ECTFE film provides the highest abrasion resistance of any fluoropolymer film available. This film has superior chemical resistance and very high tensile strength and flexural modulus.NortonÂ® ECTFE film offers low surface energy, making it an excellent choice for release applications. The low specific gravity of ECTFE provides more square feet than FEP for composite fabrication.The combination of heat stability, electrical characteristics, and barrier properties provides insulator performance especially suited for the electrical and electronics industry. NortonÂ® ECTFE film offers the highest dielectric strength of all fluoropolymer films.NortonÂ® ECTFE film has outstanding resistance to weathering and high energy radiation. This material is suited for electrical tapes, cable insulation, printed circuits, capacitors, chlorine cells, flat cable constructions, and solar collectors.NortonÂ® ECTFE film offers a UL V-0 rating for flammability. This provides performance suitable for aircraft cabin interiors and fuel cell membranes.Used primarily for Aerospace/Release films, Chemical Process, Electrical/ElectronicsInformation provided by Saint Gobain Performance Products.

Order this product through the following link:
http://www.lookpolymers.com/polymer_Saint-Gobain-Norton-ECTFE-Fluoropolymer-Film.php

Physical Properties	Metric	English	Comments
Specific Gravity	1.68 g/cc	1.68 g/cc	ASTM D-792
Water Absorption	<= 0.010 %	<= 0.010 %	

Mechanical Properties	Metric	English	Comments
Tensile Strength, Yield	55.2 MPa	8000 psi	ASTM D-882
Elongation at Break	250 %	250 %	ASTM D-882
Tensile Modulus	1.38 GPa	200 ksi	ASTM D-882
Tear Strength	177 kN/m	1010 pli	Initial Tear Strength; ASTM D-1004
Elmendorf Tear Strength, MD	>= 47.2 g/micron	>= 1200 g/mil	(direction not reported), Propagation Tear Strength; ASTM D-1922
Heat Seal Strength Initiation Temperature	246 - 260 Â°C	475 - 500 Â°F	

Thermal Properties	Metric	English	Comments
	162 Âµm/m-Â°C	90.0 Âµin/in-Â°F	

Thermal Properties	Metric	English	Comments
	@Temperature 20.0 Â°C	@Temperature 68.0 Â°F	
Melting Point	241 Â°C	465 Â°F	ASTM D-3418
Maximum Service Temperature, Air	149 - 171 Â°C	300 - 340 Â°F	UL-746 B
Flammability, UL94	V-0	V-0	

Optical Properties	Metric	English	Comments
Refractive Index	1.40	1.40	ASTM D542

Electrical Properties	Metric	English	Comments
Dielectric Constant	2.55 - 2.63 @Frequency 1000 Hz	2.55 - 2.63 @Frequency 1000 Hz	ASTM D-150
Dielectric Strength	217 kV/mm	5500 kV/in	ASTM D-149
Dissipation Factor	<= 0.0050	<= 0.0050	ASTM D-150

Descriptive Properties	Value	Comments
Fold Endurance (MIN)	250000	ASTM D2176

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