

Quadrant EPP Symalit® 1000 ECTFE, unfilled, lining industries (ISO Data)

Category : Polymer , Thermoplastic , Fluoropolymer , ETFE/ECTFE , Fluorocarbon ETFE/ECTFE, Molded/Extruded

Material Notes:

Symalit 1000 ECTFE is made from a fluoropolymer resin that is a copolymer of ethylene and chlorotrifluoroethylene. It exhibits good mechanical properties combined with an excellent chemical resistance. Thermal stability in the range -76 °C up to +160 °C / -105 °F up to +356 °F Excellent chemical resistance against highly concentrated chemicals, even for a broad range of alkalines (up to pH 14) Low permeability to liquids, gases and vapors. High elongation at break Excellent impact resistance Good resistance to stress cracking, even with caustic solutions, chlorine and alkaline areas Excellent weather proof and radiation proof Low coefficient of thermal expansion

Order this product through the following link:

http://www.lookpolymers.com/polymer_Quadrant-EPP-Symalit-1000-ECTFE-unfilled-lining-industries-ISO-Data.php

Physical Properties	Metric	English	Comments
Density	1.68 g/cc	0.0607 lb/in ³	ISO 1183-1
Moisture Absorption at Equilibrium	0.040 %	0.040 %	50% RH
Water Absorption at Saturation	<= 0.10 %	<= 0.10 %	

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell R	94	94	ISO 2039-2
Hardness, Shore D	70	70	
Ball Indentation Hardness	65.0 MPa	9430 psi	ISO 2039-1
Tensile Strength	30.0 MPa	4350 psi	at Yield; ISO 527-1/-2
Elongation at Break	>= 50 %	>= 50 %	ISO 527-1/-2
Elongation at Yield	4.0 %	4.0 %	ISO 527-1/-2
Tensile Modulus	1.60 GPa	232 ksi	ISO 527-1/-2
Flexural Strength	47.0 MPa	6820 psi	
Compressive Strength	14.5 MPa	2100 psi	ISO 604
	@Strain 1 %	@Strain 1 %	
	26.0 MPa	3770 psi	
	@Strain 2 %	@Strain 2 %	ISO 604
	33.0 MPa	4790 psi	ISO 604
	@Strain 5 %	@Strain 5 %	
K Factor (ISO)	1100 µm/km	1100 µm/km	

Mechanical Properties	Metric	English	Comments
Charpy Impact, Notched	18.0 J/cm ²	85.7 ft-lb/in ²	Partial Break; ISO 179-1/1eA
Coefficient of Friction, Dynamic	0.35 - 0.45	0.35 - 0.45	

Thermal Properties	Metric	English	Comments
CTE, linear	120 µm/m-°C	66.7 µin/in-°F	
	@Temperature 23.0 - 100 °C	@Temperature 73.4 - 212 °F	
Thermal Conductivity	0.150 W/m-K	1.04 BTU-in/hr-ft ² -°F	
Melting Point	240 °C	464 °F	DSC, 10°C/min.; ISO 11357-1/-3
Maximum Service Temperature, Air	160 °C	320 °F	Continuous
Deflection Temperature at 1.8 MPa (264 psi)	65.0 °C	149 °F	ISO 75-1/-2
Flammability, UL94	V-0	V-0	
Oxygen Index	52 %	52 %	ISO 4589-1/-2

Electrical Properties	Metric	English	Comments
Volume Resistivity	>= 1.0e+14 ohm-cm	>= 1.0e+14 ohm-cm	IEC 60093
Surface Resistivity per Square	>= 1.0e+13 ohm	>= 1.0e+13 ohm	IEC 60093
Dielectric Constant	2.5	2.5	IEC 60250
	@Frequency >=100000 Hz	@Frequency >=100000 Hz	
Dielectric Strength	26.0 kV/mm	660 kV/in	
Dissipation Factor	0.0010	0.0010	IEC 60250
	@Frequency 100000 Hz	@Frequency 100000 Hz	
Comparative Tracking Index	600 V	600 V	IEC 60112

Compliance Properties	Metric	English	Comments
3A-Dairy	No	No	
European Food 1935/2004	No	No	
FDA	No	No	
USP Class VI	No	No	

Chemical Resistance Properties	Metric	English	Comments
Acids, Strong (pH 1-3)	Acceptable	Acceptable	
Acids, Weak	Acceptable	Acceptable	
Alcohols	Acceptable	Acceptable	
Alkalies, Strong (pH 11-14)	Unacceptable	Unacceptable	
Alkalies, Weak	Limited	Limited	
Chlorinated Solvents	Limited	Limited	
Continuous Sunlight	Limited	Limited	
Hot Water / Steam	Acceptable	Acceptable	
Hydrocarbons - Aliphatic	Acceptable	Acceptable	
Hydrocarbons - Aromatic	Acceptable	Acceptable	
Inorganic Salt Solutions	Acceptable	Acceptable	
Ketones, Esters	Unacceptable	Unacceptable	

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