

## Quadrant EPP Symalit® PFA Tetrafluoroethylene-perfluoroalkylvinylether (ASTM Product Data Sheet)

Category : Polymer , Thermoplastic , Fluoropolymer , PFA

Material Notes:

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Quadrant-EPP-Symalit-PFA-Tetrafluoroethylene-perfluoroalkylvinylether-ASTM-Product-Data-Sheet.php](http://www.lookpolymers.com/polymer_Quadrant-EPP-Symalit-PFA-Tetrafluoroethylene-perfluoroalkylvinylether-ASTM-Product-Data-Sheet.php)

Physical Properties	Metric	English	Comments
Specific Gravity	2.15 g/cc	2.15 g/cc	ASTM D792
Water Absorption	0.050 %	0.050 %	Immersion, 24hr; ASTM D570(2)
Water Absorption at Saturation	0.050 %	0.050 %	Immersion; ASTM D570(2)

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell M	23	23	ASTM D785
Hardness, Rockwell R	78	78	ASTM D785
Hardness, Shore D	62	62	ASTM D2240
Tensile Strength	20.7 MPa	3000 psi	ASTM D638
Elongation at Break	500 %	500 %	ASTM D638
Tensile Modulus	0.689 GPa	100 ksi	ASTM D638
Flexural Strength	17.2 MPa	2500 psi	ASTM D790
Flexural Modulus	0.586 GPa	85.0 ksi	ASTM D790
Compressive Strength	20.7 MPa	3000 psi	10% Def.; ASTM D695
Compressive Modulus	0.517 GPa	75.0 ksi	ASTM D695
Shear Strength	19.3 MPa	2800 psi	ASTM D732
Izod Impact, Notched	7.79 J/cm	14.6 ft-lb/in	ASTM D256 Type A

Thermal Properties	Metric	English	Comments
CTE, linear	135 $\mu\text{m}/\text{m}\cdot^{\circ}\text{C}$	75.0 $\mu\text{in}/\text{in}\cdot^{\circ}\text{F}$	ASTM E831
	@Temperature -40.0 - 149 $^{\circ}\text{C}$	@Temperature -40.0 - 300 $^{\circ}\text{F}$	
Melting Point	302 $^{\circ}\text{C}$	575 $^{\circ}\text{F}$	Crystalline, Peak; ASTM D3418

Maximum Service Temperature, Air Thermal Properties	260 °C Metric	500 °F English	Long Term Comments
Deflection Temperature at 1.8 MPa (264 psi)	79.4 °C	175 °F	ASTM D648
Flammability, UL94	V-0	V-0	1/8 inch (Estimated Rating)

Electrical Properties	Metric	English	Comments
Surface Resistivity per Square	>= 1.00e+13 ohm	>= 1.00e+13 ohm	EOS/ESD S11.11
Dielectric Constant	2.1 @Frequency 1e+6 Hz	2.1 @Frequency 1e+6 Hz	ASTM D150
Dielectric Strength	3.94 kV/mm	100 kV/in	Short Term; ASTM D149
Dissipation Factor	0.0001 - 0.001 @Frequency 1e+6 Hz	0.0001 - 0.001 @Frequency 1e+6 Hz	ASTM D150

Compliance Properties	Metric	English	Comments
3A-Dairy	Yes	Yes	
Canada AG	No	No	
FDA	Yes	Yes	
NSF	No	No	
USDA	No	No	
USP Class VI	Yes	Yes	

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	
Conductive / Static Dissipative	No	No	
Continuous Sunlight	Limited	Limited	
Hot Water / Steam	Acceptable	Acceptable	

Chemical Resistance Properties	Metric able	English ble	Comments
Hydrocarbons - Aromatic	Acceptable	Acceptable	
Inorganic Salt Solutions	Acceptable	Acceptable	
Ketones, Esters	Unacceptable	Unacceptable	

## Contact Songhan Plastic Technology Co.,Ltd.

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