

Solvay Specialty Polymers Solef[®] 460/461 Polyvinylidene Fluoride (PVDF)

Category : Polymer , Thermoplastic , Fluoropolymer , PVDF , Polyvinylidene fluoride (PVDF), Molded/Extruded

Material Notes:

Solef[®] 460/461 PVDF homopolymer has high melt viscosity and is typically processed by extrusion. Features: High Viscosity; Homopolymer Additional Properties: Crystallization Heat - ASTM D3418 46.0 J/g; Heat of Fusion - ASTM D3418 46.0 J/g Information provided by Solvay Specialty Polymers.

Order this product through the following link:

http://www.lookpolymers.com/polymer_Solvay-Specialty-Polymers-Solef-460461-Polyvinylidene-Fluoride-PVDF.php

Physical Properties	Metric	English	Comments
Density	1.76 g/cc	0.0636 lb/in ³	ASTM D792
Water Absorption	0.020 % @Time 86400 sec	0.020 % @Time 24.0 hour	ISO 62
Viscosity	2.60e+6 cP @Shear Rate 100 1/s, Temperature 232 Â°C	2.60e+6 cP @Shear Rate 100 1/s, Temperature 450 Â°F	Melt Viscosity; ASTM D3835
Melt Flow	10 g/10 min @Load 21.6 kg, Temperature 230 Â°C	10 g/10 min @Load 47.6 lb, Temperature 446 Â°F	ASTM D1238

Mechanical Properties	Metric	English	Comments
Hardness, Shore D	75	75	ASTM D2240
Tensile Strength at Break	41.0 MPa	5950 psi	50 mm/min; ASTM D638
Tensile Strength, Yield	48.0 MPa	6960 psi	50 mm/min; ASTM D638
Elongation at Break	100 %	100 %	50 mm/min; ASTM D638
Elongation at Yield	10 %	10 %	50 mm/min; ASTM D638
Tensile Modulus	1.31 GPa	190 ksi	50 mm/min; ASTM D638
Flexural Yield Strength	55.0 MPa	7980 psi	50 mm/min; ASTM D790
Flexural Modulus	1.52 GPa	220 ksi	50 mm/min; ASTM D790
Izod Impact, Notched	1.10 J/cm	2.06 ft-lb/in	ASTM D256
Izod Impact, Unnotched	11.0 J/cm	20.6 ft-lb/in	ASTM D256
Coefficient of Friction, Dynamic	0.20	0.20	vs. Itself; ASTM D1894
Coefficient of Friction, Static	0.30	0.30	vs. Itself; ASTM D1894

Mechanical Properties	Metric	English	Comments
Taber Abrasion, mg/1000 Cycles	8.0	8.0	C5-17 Wheel, 1000 g; ASTM D1044

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	130 $\mu\text{m}/\text{m}\cdot\text{Å}^\circ\text{C}$	72.2 $\mu\text{in}/\text{in}\cdot\text{Å}^\circ\text{F}$	
Specific Heat Capacity	1.34 J/g $\cdot\text{Å}^\circ\text{C}$	0.320 BTU/lb $\cdot\text{Å}^\circ\text{F}$	ASTM C351
Thermal Conductivity	0.200 W/m-K	1.39 BTU-in/hr $\cdot\text{ft}\cdot\text{Å}^\circ\text{F}$	ASTM C177
Melting Point	160 $\text{Å}^\circ\text{C}$	320 $\text{Å}^\circ\text{F}$	DSC
Crystallization Temperature	132 $\text{Å}^\circ\text{C}$	270 $\text{Å}^\circ\text{F}$	Peak; ASTM D3418
Deflection Temperature at 0.46 MPa (66 psi)	127 $\text{Å}^\circ\text{C}$	261 $\text{Å}^\circ\text{F}$	Annealed; ASTM D648
Deflection Temperature at 1.8 MPa (264 psi)	88.0 $\text{Å}^\circ\text{C}$	190 $\text{Å}^\circ\text{F}$	Annealed; ASTM D648
Glass Transition Temp, Tg	-39.0 $\text{Å}^\circ\text{C}$	-38.2 $\text{Å}^\circ\text{F}$	ASTM E1356
Flammability, UL94	V-0	V-0	
Oxygen Index	44 %	44 %	ASTM D2863

Optical Properties	Metric	English	Comments
Refractive Index	1.42	1.42	ASTM D542

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+15 ohm-cm	1.00e+15 ohm-cm	ASTM D257
Dielectric Constant	6.0	6.0	ASTM D150
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
Dielectric Strength	10.0 kV/mm	254 kV/in	ASTM D149
	@Thickness 3.18 mm	@Thickness 0.125 in	

Descriptive Properties	Value	Comments
Availability	Africa & Middle East	
	Asia Pacific	
	Europe	
	Latin America	

Descriptive Properties	Value	Comments
Processing Technique	Extrusion	

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