Solvay Specialty Polymers Solef® 6010 Polyvinylidene Fluoride (PVDF) (Unverified Data**)

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

Material Notes:

Solef® 6010 PVDF homopolymer has medium viscosity and is typically processed by extrusion.Information provided by Solvay Specialty Polymers.

Order this product through the following link:
http://www.lookpolymers.com/polymer_Solvay-Specialty-Polymers-Solef-6010-Polyvinylidene-Fluoride-PVDF-nbspUnverified-Data.php

Physical Properties	Metric	English	Comments
Specific Gravity	1.75 - 1.80 g/cc	1.75 - 1.80 g/cc	ASTM D792
Water Absorption	<= 0.040 % @Temperature 23.0 °C, Time 86400 sec	<= 0.040 % @Temperature 73.4 °F, Time 24.0 hour	ASTM D570
Linear Mold Shrinkage, Flow	0.020 - 0.030 cm/cm	0.020 - 0.030 in/in	
Melt Flow	4.0 - 8.0 g/10 min @Load 5.00 kg, Temperature 230 °C	4.0 - 8.0 g/10 min @Load 11.0 lb, Temperature 446 °F	ASTM D1238

Mechanical Properties	Metric	English	Comments
Hardness, Shore D	73 - 80 @Thickness 2.00 mm, Time 1.00 sec	73 - 80 @Thickness 0.0787 in, Time 0.000278 hour	ASTM D2240
Tensile Strength at Break	30.0 - 50.0 MPa @Thickness 2.00 mm, Temperature 23.0 °C	4350 - 7250 psi @Thickness 0.0787 in, Temperature 73.4 °F	Type IV, 50 mm/min; ASTM D638
Tensile Strength, Yield	50.0 - 60.0 MPa @Thickness 2.00 mm, Temperature 23.0 °C	7250 - 8700 psi @Thickness 0.0787 in, Temperature 73.4 °F	Type IV, 50 mm/min; ASTM D638
Elongation at Break	20 - 300 % @Thickness 2.00 mm, Temperature 23.0 °C	20 - 300 % @Thickness 0.0787 in, Temperature 73.4 °F	Type IV, 50 mm/min; ASTM D638
Elongation at Yield	5.0 - 10 % @Thickness 2.00 mm, Temperature 23.0 °C	5.0 - 10 % @Thickness 0.0787 in, Temperature 73.4 °F	Type IV, 50 mm/min; ASTM D638
Tensile Modulus	1.70 - 2.50 GPa @Thickness 2.00 mm,	247 - 363 ksi @Thickness 0.0787 in,	Type IV, 1.0 mm/min; ASTM D638

Mechanical Properties	Metric Temperature 23.0 °C	English Temperature 73.4 °F	Comments
Impact	100 - 200 @Thickness 4.00 mm	100 - 200 @Thickness 0.157 in	J/m Charpy Notched Impact Strength; 2 m/s; ASTM D6110
Coefficient of Friction, Dynamic	0.15 - 0.35	0.15 - 0.35	vs. Itself; ASTM D1894
Coefficient of Friction, Static	0.20 - 0.40	0.20 - 0.40	vs. Itself; ASTM D1894
Taber Abrasion, mg/1000 Cycles	5.0 - 10 @Load 1.00 kg	5.0 - 10 @Load 2.20 lb	CS-10 Wheel; ASTM D4060

Thermal Properties	Metric	English	Comments
Heat of Fusion	54.0 - 60.0 J/g	23.2 - 25.8 BTU/lb	Crystallization Heat; ASTM D3417
	57.0 - 66.0 J/g	24.5 - 28.4 BTU/lb	ASTM D3417
CTE, linear, Parallel to Flow	140 µm/m-°C @Temperature 0.000 - 40.0 °C	77.8 µin/in-°F @Temperature 32.0 - 104 °F	ASTM D696
Specific Heat Capacity	1.20 J/g-°C @Temperature 23.0 °C	0.287 BTU/lb-°F @Temperature 73.4 °F	ASTM E968
	1.60 J/g-°C @Temperature 100 °C	0.382 BTU/lb-°F @Temperature 212 °F	ASTM E968
Thermal Conductivity	0.200 W/m-K @Temperature 23.0 °C	1.39 BTU-in/hr-ft²-°F @Temperature 73.4 °F	ASTM C177
Melting Point	170 - 175 °C	338 - 347 °F	ASTM D3418
Crystallization Temperature	137 - 144 °C	279 - 291 °F	Peak, DSC; ASTM D3418
Vicat Softening Point	135 - 145 °C	275 - 293 °F	Rate A (50°C/h), Loading 2 (50 N); ASTM D1525
Glass Transition Temp, Tg	-40.0 °C	-40.0 °F	ASTM D4065
Flammability, UL94	V-0 @Thickness 0.100 mm	V-0 @Thickness 0.00394 in	UL 94
Oxygen Index	44 % @Thickness 3.00 mm	44 % @Thickness 0.118 in	ASTM D2863

Electrical Properties	Metric	English	Comments
Volume Resistivity	>= 1.00e+14 ohm-cm	>= 1.00e+14 ohm-cm	ASTM D257

Electrical Properties	Metric	English	Comments
Surface Resistance	>= 1.00e+14 ohm	>= 1.00e+14 ohm	ASTM D257
Dielectric Constant	7.0 - 10 @Frequency 1000 Hz, Temperature 23.0 °C	7.0 - 10 @Frequency 1000 Hz, Temperature 73.4 °F	ASTM D150
Dielectric Strength	20.0 - 25.0 kV/mm @Thickness 1.00 mm, Temperature 23.0 °C	508 - 635 kV/in @Thickness 0.0394 in, Temperature 73.4 °F	ASTM D149

Descriptive Properties	Value	Comments
Availability	Africa & Middle East	
	Asia Pacific	
	Europe	
	North America	
	South America	
Features	Homopolymer	
	Medium Viscosity	
Generic	PVDF	
Processing Method	Extrusion	

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