

## Solvay Specialty Polymers Solef® 11010 Polyvinylidene Fluoride (PVDF) (Unverified Data\*\*)

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

### Material Notes:

Solef® 11010 PVDF is a medium-viscosity flexible PVDF copolymer resin 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-11010-Polyvinylidene-Fluoride-PVDF-nbspUnverified-Data.php](http://www.lookpolymers.com/polymer_Solvay-Specialty-Polymers-Solef-11010-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	70 - 75 @Thickness 2.00 mm, Time 1.00 sec	70 - 75 @Thickness 0.0787 in, Time 0.000278 hour	ASTM D2240
Tensile Strength at Break	20.0 - 40.0 MPa @Thickness 2.00 mm, Temperature 23.0 °C	2900 - 5800 psi @Thickness 0.0787 in, Temperature 73.4 °F	Type IV, 50 mm/min; ASTM D638
Tensile Strength, Yield	20.0 - 35.0 MPa @Thickness 2.00 mm, Temperature 23.0 °C	2900 - 5080 psi @Thickness 0.0787 in, Temperature 73.4 °F	Type IV, 50 mm/min; ASTM D638
Elongation at Break	200 - 600 % @Thickness 2.00 mm, Temperature 23.0 °C	200 - 600 % @Thickness 0.0787 in, Temperature 73.4 °F	Type IV, 50 mm/min; ASTM D638
Elongation at Yield	10 - 12 % @Thickness 2.00 mm, Temperature 23.0 °C	10 - 12 % @Thickness 0.0787 in, Temperature 73.4 °F	Type IV, 50 mm/min; ASTM D638
Tensile Modulus	0.800 - 1.20 GPa @Thickness 2.00 mm,	116 - 174 ksi @Thickness 0.0787 in,	Type IV, 1.0 mm/min; ASTM D638

Mechanical Properties	Temperature 23.0 °C Metric	Temperature 73.4 °F English	Comments
Impact	150 - 200 @Thickness 4.00 mm	150 - 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 - 15 @Load 1.00 kg	5.0 - 15 @Load 2.20 lb	CS-10 Wheel; ASTM D4060

Thermal Properties	Metric	English	Comments
Heat of Fusion	30.0 - 40.0 J/g	12.9 - 17.2 BTU/lb	Crystallization Heat; ASTM D3417
	35.0 - 40.0 J/g	15.1 - 17.2 BTU/lb	ASTM D3417
CTE, linear, Parallel to Flow	180 µm/m-°C @Temperature 0.000 - 40.0 °C	100 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	0.190 W/m-K @Temperature 23.0 °C	1.32 BTU-in/hr-ft²-°F @Temperature 73.4 °F	ASTM C177
Melting Point	158 - 162 °C	316 - 324 °F	ASTM D3418
Crystallization Temperature	115 - 130 °C	239 - 266 °F	Peak, DSC; ASTM D3418
Vicat Softening Point	90.0 - 105 °C	194 - 221 °F	Rate A (50°C/h), Loading 2 (50 N); ASTM D1525
Glass Transition Temp, Tg	-35.0 °C	-31.0 °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

Surface Resistance Electrical Properties	$\geq 1.00e+14$ ohm Metric	$\geq 1.00e+14$ ohm English	ASTM D257 Comments
Dielectric Constant	7.0 - 10	7.0 - 10	ASTM D150
	@Frequency 1.00e+6 Hz, Temperature 23.0 °C	@Frequency 1.00e+6 Hz, Temperature 73.4 °F	
Dielectric Strength	20.0 - 25.0 kV/mm	508 - 635 kV/in	ASTM D149
	@Thickness 1.00 mm, Temperature 23.0 °C	@Thickness 0.0394 in, Temperature 73.4 °F	
Dissipation Factor	0.20	0.20	ASTM D150
	@Frequency 1.00e+6 Hz, Temperature 23.0 °C	@Frequency 1.00e+6 Hz, Temperature 73.4 °F	

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

## Contact Songhan Plastic Technology Co.,Ltd.

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