

Ajedium™ Films -- Solef® PVDF 9009

Polyvinylidene Fluoride
Solvay Specialty Polymers

Message:

Solef® 9009 PVDF homopolymer is a semi-crysalline fluoropolymer. Solef® film is chemically inert to most acids, aliphatic and aromatic organic compounds, chlorinated solvents and alcohols.

Solef® PVDF flim has a very high purity, abrasion resistance comparable to that of polyamides and relatively low coefficient of friction. These films can be used in a wide range of temperatures and have excellent intrinsic fire resistance.

Solef® PVDF films have demonstrated excellent weathering properties and are extremely resistant to UV radiation and common industrial and environmental pollutants.

Solef® PVDF films can be used in a wide range of applications, including release films, filters, chemical resistance lining, outdoor UV resistant needs as well as electric and electronic applications.

General Information			
Features	Homopolymer		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.75 - 1.80	g/cm³	ASTM D792
Water Absorption (23°C, 24 hr)	< 0.040	%	ASTM D570
Mechanical	Nominal Value	Unit	Test Method
Coefficient of Friction			ASTM D1894
With self-dynamics	0.15 - 0.35		ASTM D1894
With Self-Static	0.20 - 0.40		ASTM D1894
Taber Abrasion Resistance (1000 Cycles, 1000 g, CS-10 Wheel)	5.00 - 10.0	mg	ASTM D4060
Films	Nominal Value	Unit	Test Method
Film Thickness - Tested	25	µm	
secant modulus			ASTM D882
MD	2000	MPa	ASTM D882
TD	2100	MPa	ASTM D882
Tensile Strength			ASTM D882
MD: Yield	55.0	MPa	ASTM D882
TD: Yield	56.0	MPa	ASTM D882
MD: Fracture	57.0	MPa	ASTM D882
TD: Fracture	54.0	MPa	ASTM D882
Tensile Elongation			ASTM D882
MD: Yield	6.0	%	ASTM D882
TD: Yield	6.2	%	ASTM D882
MD: Fracture	200	%	ASTM D882
TD: Fracture	250	%	ASTM D882
Free Shrinkage (130°C)	0.70	%	ASTM D2732
Area coefficient	108	ft²/lb/mil	
Thermal	Nominal Value	Unit	Test Method
Glass Transition Temperature	-40.0	°C	ASTM D4065

Melting Temperature	162 - 168	°C	ASTM D3418
Peak Crystallization Temperature (DSC)	133 - 140	°C	ASTM D3418
CLTE - Flow	1.4E-4	cm/cm/°C	ASTM D696
Specific Heat (100°C)	1600	J/kg/°C	ASTM C351
Thermal Conductivity	0.20	W/m/K	ASTM C177
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	> 1.0E+14	ohms	ASTM D257
Volume Resistivity	> 1.0E+14	ohms·cm	ASTM D257
Dielectric Strength (23°C, 1.00 mm)	20 - 25	kV/mm	ASTM D149
Dielectric Constant	7.50		ASTM D150
Flammability	Nominal Value	Unit	Test Method
Oxygen Index (3.00 mm)	44	%	ASTM D2863

Additional Information

Standard Thicknesses and Widths

Widths are available from 22" (559 mm) to 56" (1422 mm).

Products with widths 56 inches are available upon request.

Tolerances for widths are +/- 4mm.

For PVDF film, the standard thicknesses are 25 microns (1 mil) to 1016 microns (40 mil).

Surface Finishes

Standard surface finish is P/M (polished / matte).

Custom finishes of P/P (polished / polished) and M/M (matte / matte) are available.

Packaging

Film is supplied in a roll form of high quality, cardboard core of 3" (76mm) or 6" (152mm).

PVC cores are available upon request in 3" and 6" sizes.

Labeling

Products are labeled to comply with national and international standards.

Labels include product grade, unique batch number, roll length, roll width, product thickness, and net weight.

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