

## SOLEF® PVDF films Data Sheet

**SOLEF® Polyvinylidene fluoride (PVDF) homopolymer** is a semi-crystalline and melt-processable fluoropolymer that, because of its chemical structure, offers peculiar combination of properties.

Ajedium's SOLEF® PVDF film is chemically inert to most acids, aliphatic and aromatic organic compounds, chlorinated solvents, alcohols, etc. Moreover, it has very high purity, abrasion resistance comparable to that of polyamides, and relatively low coefficient of friction.

SOLEF® PVDF film can be used within a wide range on temperatures and has excellent intrinsic fire resistance.

Moreover, polyvinylidene fluoride films have demonstrated excellent weathering properties and are extremely resistant to UV radiation and common industrial or environmental pollutants.

PVDF can cover a wide range of possible applications. Some examples are: release films, filters, chemical resistant lining, outdoor UV resistant as well as electric and electronic applications.

### MANUFACTURING

SOLEF® PVDF homopolymer films are extruded by Ajedium in a wide range of thicknesses, widths and lengths.

*For further information on PVDF films produced by Ajedium Films, a division of Solvay Solexis, Inc. contact your Solvay Solexis representative or go to [www.ajedium.com](http://www.ajedium.com).*

## SOLEF® PVDF (HOMOPOLYMER) FILMS TYPICAL PROPERTIES

	Test Method	Typical Values	
		SI Units	US Customary Units
<b>Physical and Thermal Properties</b>			
Yield	internal	565 m <sup>2</sup> /kg/μm	15,625 in <sup>2</sup> /lb/mil
Melting Point	ASTM D-3418	170-174 °C	338-345 °F
<b>Mechanical Properties</b>			
		<b>MD TD</b>	<b>MD TD</b>
Stress at Yield @ 23 °C (73 °F)	ASTM D-882	55 MPa 56 MPa	8,000 psi 8,100 psi
Elongation at Yield @ 23 °C (73 °F)	ASTM D-882	6 % 6.2 %	6 % 6.2 %
Stress at Break @ 23 °C (73 °F)	ASTM D-882	57 MPa 54 MPa	8,300 psi 7,800 psi
Elongation at Break @ 23 °C (73 °F)	ASTM D-882	200 % 250 %	200% 250%
Modulus @ 23 °C (73 °F)	ASTM D-882	2,000 MPa 2,100 MPa	290 kpsi 305 kpsi
<b>Shrinkage</b>			
		<b>MD TD</b>	<b>MD TD</b>
Free shrink % @ 130°C	30 min in oven	0.7 % 0 %	0.7 % 0 %
Free shrink % @ 150°C	30 min in oven	1.4 % 0.2 %	1.4 % 0.2 %
<b>Electrical Properties</b>			
Volume Resistivity @ 23°C – 73°F	ASTM D 257	7.7·10 <sup>14</sup> Ohm-cm	7.7·10 <sup>14</sup> Ohm-cm
Dielectric Constant @ 1 kHz 23°C (73°F)	ASTM D 150	7.6	7.6

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