



PVDF FILM – POLYVINYLIDENE FLUORIDE

PVDF is strong and tough as reflected by its tensile properties and impact strength. Compared to many thermoplastics, PVDF has excellent resistance to creep and fatigue, yet in thin sections such as films, PVDF components are flexible and transparent.

The following physical property information is based on typical values of the base Kynar® 740 resin as well as test results obtained from actual film testing.

Applications Include:

- Filters
- Diaphragms
- Release films
- Piezoelectric films
- Chemical resistant tank linings
- Fuel cell seals
- Medical bags

Advantages of PVDF Film:

- Excellent chemical resistance
- Stable to UV and the effects of weather
- Low NBS smoke generation and superior LOI
- Excellent transmittance of solar energy
- Excellent dielectric strength
- High heat resistance
- Excellent physical and mechanical properties for a fluoropolymer
- Resin FDA compliant
- FM 4910 approved

Manufacturing Capabilities:

- **Film:**
.002" to .029" thick up to 26" wide

Finishes:

- all thicknesses available polished one side, matte the other (P/M)

In addition to our standard capabilities, Westlake also has the ability to process custom resins in various sizes and colors with some exceptions.

Property	Units	Test Standard	Result
Mechanical			
Tensile Strength @yield	psi	ASTM D882	7,550
Tensile Elongation @break	%	ASTM D882	160
Tensile Modulus	psi	ASTM D882	250,000
Flexural Modulus	psi	ASTM D790	260,000
Tear Strength - prop.	g/mil	ASTM D1004	735
Thermal			
Continuous Use Temperature–UL	°F	—	265
Heat Deflection Temperature @264 psi	°F	ASTM D648	244
Melt Temperature–DSC	°F	—	329-338
Glass Transition Temperature	°F	ASTM D3418	—
Flammability			
UL Rating—UL94	—	—	VTM-0
LOI	%	ASTM D2863	43
NBS Smoke	Dmax	ASTM E662	—
Electrical			
Surface Resistivity	Ohms	ASTM D257	>10 ¹⁶
Dielectric Strength @.003"	V/mil	ASTM D149	1,930
Dielectric Constant	1 KHz	ASTM D150	8.15-10.46
Dissipation Factor	1 KHz	ASTM D150	0.005-0.019
Other			
Specific Gravity	—	ASTM D792	1.78
Water Absorption @24 hours	%	ASTM D570	0.01
Refractive Index	—	—	1.42
Haze	%	ASTM D1003	—
Area Factor	in ² /lb/mil	—	15,480