



ECTFE FILM – ETHYLENE-CHLOROTRIFLUOROETHYLENE

ECTFE provides excellent chemical resistance, good electrical properties, a broad-use temperature range from cryogenic to 300°F (150°C), and meets the requirements of UL-94V-0 vertical flame test in thicknesses as low as 7 mils (0.18 mm). It is a tough material with excellent impact strength and wear resistance.

The following physical property information is based on typical values of the base Halar® 300 resin as well as test results obtained from actual film testing.

Applications Include:

- Filters
- Diaphragms
- Release films
- Cable insulation
- Solar collector panels
- Coaxial and fiber optic wrap film
- Medical bags

Advantages of ECTFE Film:

- Excellent purity
- Excellent chemical resistance
- Low permeability
- Excellent abrasion resistance
- Excellent temperature resistance

Manufacturing Capabilities:

- **Film:**
.002" to .029" thick up to 25" 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	4,940
Tensile Elongation @break	%	ASTM D882	220
Tensile Modulus	psi	ASTM D882	284,000
Flexural Modulus	psi	ASTM D790	240,000
Tear Strength - prop.	g/mil	ASTM D1004	513
Thermal			
Continuous Use Temperature–UL	°F	—	302
Heat Deflection Temperature @66 psi	°F	ASTM D648	240
Melt Temperature–DSC	°F	—	464
Glass Transition Temperature	°F	ASTM D3418	—
Flammability			
UL Rating—UL94	—	—	VTM-0
LOI	%	ASTM D2863	60
NBS Smoke	Dmax	ASTM E662	—
Electrical			
Surface Resistivity	Ohms	ASTM D257	>10 ¹⁶
Dielectric Strength @.003"	V/mil	ASTM D149	2,670
Dielectric Constant	1 KHz	ASTM D150	2.56
Dissipation Factor	1 KHz	ASTM D150	0.0025-0.0050
Other			
Specific Gravity	—	ASTM D792	1.68
Water Absorption @24 hours	%	ASTM D570	<0.1
Refractive Index	—	—	—
Haze	%	ASTM D1003	—
Area Factor	in ² /lb/mil	—	16,364