



Thermalux[®] Film (polysulfone)

Thermalux is a tough, rigid, high-strength, amorphous thermoplastic that maintains its properties over a wide temperature range. It has good electrical properties, clarity and toughness, plus exceptional steam resistance and thermoformability. It is used widely in food service, electronics, medical devices, chemical process equipment and automotive industries. The following physical property information is based on typical values of the base UDEL[®] P-1700 resin as well as test results obtained from actual film testing.

Applications Include:

- Flex circuits
- Hot melt adhesives
- Thermoformed food trays
- High temperature labels
- Medical device windows
- Hydraulic piston components

Advantages of Thermalux Film:

- Exceptional electrical properties over varying conditions
- Excellent mechanical properties
- Good chemical resistance
- Hydrolytically stable
- Transparency
- Resin FDA compliant

Manufacturing Capabilities:

Thicknesses and Widths:
 .001" to .010" up to 27" wide
 .011" to .029" 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.

	Units	ASTM Test	Result
Mechanical			
Tensile Strength @yield	psi	D882	10,600
Elongation @break	%	D882	110
Tensile Modulus	psi	D882	360,000
Flexural Modulus	psi	D790	390,000
Tear Strength -prop.	g/mil	D1004	16
Thermal			
Continuous Use Temp.–UL	°F	—	302
Heat Deflection Temperature	@264 psi	°F	D648
345			
Melt Temp.–DSC	°F	—	—
Glass Transition Temp.	°F	D3418	374
Flammability			
UL Rating–UL94	—	—	HB
L.O.I.	%	D2863	30
NBS Smoke	Dmax	E662	—
Electrical			
Surface Resistivity	Ohms	D257	3.0 x 10 ¹⁶
Dielectric Strength @.004"	V/mil	D149	2,400
Dielectric Constant	1 KHz	D150	3.14
Dissipation Factor	1 KHz	D150	0.0013
Other			
Specific Gravity	—	D792	1.24
Water Absorption	%/24 hr.	D570	0.3
Refractive Index	—	—	1.633
Haze	%	D1003	0.6

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