



WESTLAKE
PLASTICS COMPANY

TPX® Film (polymethylpentene)

TPX has a remarkable and unique combination of transparency and resistance to heat and chemicals. It also has unique acoustical properties. It is used in a wide variety of applications including speaker cones, gas separating membranes, release films and carrier films for ceramic slurry. The following physical property information is based on typical values of the base TPX® DX845 resin as well as test results obtained from actual film testing.

Applications Include:

- Speaker cones
- Gas separating membranes
- Release films
- Carrier films for ceramic slurry
- Antennas
- Medical instrument cover
- Ultrasonic imaging equipment

Advantages of TPX Film:

- Lowest specific gravity of any known thermoplastic
- Low moisture absorption
- Exceptional electrical properties
- Good chemical resistance
- High heat resistance
- Excellent acoustical properties
- Transparency
- Resin FDAcompliant

Manufacturing Capabilities:

Thicknesses and Widths:
.002" to .029" up to 24" 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	4,110
Elongation @break	%	D882	10
Tensile Modulus	psi	D882	280,000
Flexural Modulus	psi	D790	210,000
Tear Strength - prop.	g/mil	D1004	125
Thermal			
Continuous Use Temp.–UL	°F	—	212
Heat Deflection Temperature @66 psi	°F	D648	212
Melt Temp.–DSC	°F	—	455
Glass Transition Temp.	°F	D3418	—
Flammability			
UL Rating–UL94	—	—	HB
L.O.I.	%	D2863	<25
NBS Smoke	Dmax	E662	—
Electrical			
Surface Resistivity	Ohms	D257	>10 ¹⁶
Dielectric Strength @.003"	V/mil	D149	3,710
Dielectric Constant	1 KHz	D150	2.12
Dissipation Factor	1 MHz	D150	.000025
Other			
Specific Gravity	—	D792	0.835
Water Absorption	%/24 hr.	D570	0.01
Refractive Index	—	—	1.463
Haze	%	D1003	2
Area Factor	in ² /lb/mil	—	32,725

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