

# Tenopex® FS13 Polycarbonate Technical Data Sheet

## Description and Applications

Tenopex® FS13 is a highly reflective white polycarbonate film designed for superior light management in LED lighting and display applications. Engineered with an optimized white formulation and precision surface finish, it achieves excellent light reflectance of 97% while maintaining dimensional stability and toughness. The film combines outstanding optical uniformity with mechanical strength and heat resistance inherent to polycarbonate, ensuring consistent performance during thermoforming, die-cutting, or lamination. Its fine matte and glossy surface options provides flexibility for reflective backlit panels, light guide assemblies and diffuser systems in LED lighting and display housings where efficient light control and long-term durability are essential.

## Typical Property Values

Property	Test Method	Units	Value
<b>Physical</b>			
Density	ASTM D792	g/cm <sup>3</sup>	1.2
Water Absorption, 24 hrs	ASTM D570	%	0.35
<b>Optical</b>			
Light Transmission	ASTM D1003	%	< 1.3
Reflectiveness		%	≥ 97
<b>Mechanical</b>			
Tensile Strength	ASTM D882	psi	8,800
Tensile Elongation at Break	ASTM D882	%	90 - 120
Impact Strength	JIS-K6745	In-lbs	120
<b>Thermal</b>			
Vicat Softening Point 120°C/hr, 10N Load	ISO 306	°C	151
<b>Electrical</b>			
Dielectric Strength	ASTM D149	V/mil	1700
Surface Resistivity @ 25°C, 50% RH	ASTM D257	Ω/square	10 <sup>15</sup>
Volume Resistivity @ 25°C, 50% RH	ASTM D257	Ω.cm	10 <sup>16</sup>
<b>UL Flammability</b>			
Film thickness ≤ 0.25mm	UL94		VTM-2
Film thickness ≥ 0.375mm	UL94		V-2
<b>Nominal Gauge Range</b>		<b>Min/Max Tolerances of Nominal</b>	
0.125mm – 0.175mm (.005" - .007")		+/-10%	
0.25mm – 0.375mm (.010" - .015")		+/-7%	
0.5mm – 0.76mm (.020" - .030")		+/-5%	

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These are typical properties and are not intended for specifications purposes. If minimum certifiable properties are required, please contact your local sales representative. Reported values are based on 0.250mm thickness film unless otherwise noted.

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