

PRODUCT DESCRIPTION - DATA SHEET

PolyLine™ 4449E polycarbonate film is one side velvet one side polished transparent polycarbonate film which endures extreme temperature conditions. They are completely suitable for printing with high quality results even without making pre-treatment. They are widely used for screen printing for automotive, labels, membrane switches, overlays, automotive dials, speedometers, thermoforming and etc. Thanks to the mar resistance the velvet texture offers, can be used over LEDs.

Properties	Standard	Unit	Typical Value
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Physical Properties

Density	ISO 1183	g/cm ³	1.2
Water Absorption 24 hrs	ASTM D570	%	0.35
Taber Abrasion	-	-	-

Optical Properties

Haze	ASTM D1003	%	42
Light Transmission	ASTM D1003	%	>88
Yellowness Index	ASTM D1925	%	0,9

Mechanical Properties

Tensile Strength	ISO 527	MPa	60
Tensile Strength	ASTM D882	psi	8500
Elongation at Break	ISO 527	%	>100
Bend Strength	ISO 178	MPa	91
Tensile Modulus	ISO 178	MPa	2400
Surface Tension	Test Fluid	dyn/cm	≥38

Electrical Properties

Dielectric Constant	IEC60250	-	3
Resistant Puncture Voltage	IEC60243	MV/mm	30
Surface Resistivity	IEC60093	Ω/square	1.00E+16
Volume Resistivity	IEC60093	Ω-cm	1.00E+17

Thermal Properties

Coefficient of Thermal Expansion	ISO 11359	×10 ⁻⁵ /°C	5.8
Thermal Conductivity Rate	ISO 11359	W/(m*K)	0.2
Thermal Conductivity Rate	ASTM D5470	Btu/hr/ft ² /°F/in	1,35
Thermal Shrinkage (150°C)	ASTM D1204	%	1,4
Tg	ISO306	°C	152

Flammability

UL94	E249605	-	V-2 / VTM-2
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Tip: This test data is for reference only, not as an absolute application index.

Thicknesses: 0,175 mm to 0,750 mm.

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