

**POLYESLINE S.L.**

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**Technical Datasheet - US Customary Units****Melinex® ST504****Product Description**

Melinex® ST504 is a crystal clear, high gloss, heat stabilized polyester film. It can be overprinted with a wide range of solvent-based graphic inks and varnishes, silver conductive and dielectric inks. It is ideally suited for graphic and certain circuitry layers in membrane touch switches. Melinex® ST504 is pretreated on one side to promote adhesion. Available in thicknesses of 500 and 700 gauge.

Typical Properties

Property	Thickness	Value	Units	Test
ELECTRICAL				
Dielectric Constant		2.9		ASTM D150
Dielectric Strength		3,000	volts/mil	ASTM D149
Surface Resistivity		10 ¹³	Ohms/sq	ASTM D257
Volume Resistivity		10 ¹⁷	Ohms-cm	ASTM D257
OPTICAL				
Gloss 60 Degrees	500	140		ASTM D1003
Gloss 60 Degrees	700	140		ASTM D1003
Haze	500	0.8	%	ASTM D1003
Haze	700	1.0	%	ASTM D1003
Total Light Transmission (TLT)	500	>85	%	ASTM D1003
Total Light Transmission (TLT)	700	>85	%	ASTM D1003
PHYSICAL				
C.O.F. (static)		<0.6		ASTM D1894
Flexural Strength	500	>20,000	cycles	ASTM D2176
Flexural Strength	700	>15,000	cycles	ASTM D2176
THERMAL				
Coefficient of Hygroscopic Expansion		6X10 ⁻⁶	IN/IN/% RH	40% - 80% RH
Coefficient of Thermal Expansion		10X10 ⁻⁶	in/in/°F	(68 - 122 °F)
Melting Point		265	°C	
Shrinkage MD (150°C)	500 - 700	0.04	%	Unrestrained @ 150°C/30 min
Shrinkage TD (150°C)	500 - 700	0.00	%	Unrestrained @ 150°C/30 min

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