



Melinex®

polyester film

Melinex® ST725

Melinex® ST725 is an optically clear, heat stabilised film, treated on both sides to give exceptional adhesion to both solvent based and UV curing inks and lacquers, making it particularly suited for the graphics layer of membrane touch switches.

Our process of continual improvement in quality and specification, now enables us to provide the following properties and benefits:

- * Heat stabilised to give excellent dimensional stability at temperatures up to 150°C.
- * Excellent adhesion to a very wide range of lacquers and screen inks, whether cured by ultra violet light or elevated temperatures.
- * Excellent durability and toughness giving long lasting switches, particularly when compared with polycarbonate.
- * Excellent slip characteristics to give ease of handling.

Melinex® ST725 is a knurled film, which is available in thicknesses of 250 microns.

TYPICAL VALUES OF PROPERTIES

Property	Test Method	Unit	Value
Thermal Melting point	BS2782	°C	255
Coefficient of thermal expansion (between 20 and 50°C)		cm/cm deg C	19 x 10 ⁻⁶ (MD)
Residual Shrinkage (after 30mins at 150°C)		%	MD* 0.10 TD** 0.03
Optical Haze	ASTM D 1003-78 (measured on Gardner Hazemeter)	%	1.5

Electrical			
Dielectric strength	ASTM D149	Kv/mm	105
Dielectric Constant	ASTM D150		2.9
Volume resistivity	ASTM D257	ohm m	10 ¹⁵
General & Mechanical			
Area yield		m ² /kg	2.9
Relative Density (at 23°C)	ASTM D 1505-79 (modified to Melinex test method)	kgf/mm ²	1.39
Tensile strength at break	ASTM D 882-83	per 1% RH	MD >17.7 TD >17.7
Coefficient of hygroscopic expansion			8x10 ⁻⁶
Elongation at break	ASTM D 882-83	%	MD 107 TD 125
F5 (force to elongate 5% of gauge length)	ASTM D 882 (50% strain rate)	kgf/mm ²	MD 9.9 TD 10.2

1 micron = 0.001 mm approx. 4 gauge, *MD = Machine Direction, **TD = Transverse Direction

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Caution: Do not use in medical applications involving permanent implantation in the human body. For other medical applications, see "DuPont Teijin Films Medical Caution Statement", H-50102-DTF.

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