



Technical Datasheet - US Customary Units

Melinex® ST505 & ST506 - 10mil

* Melinex® ST505 is the unknurled version of ST506

Product Description

Melinex® ST505 & ST506 is a crystal clear, high gloss, heat stabilized polyester film. It is pretreated on both sides for improved adhesion. 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. It is available in 1000 gauge thickness.

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

- * Heat stabilized to give excellent dimensional stability at temperatures up to 302°F.
- * Excellent adhesion to a wide range of solvent based inks, graphics inks and varnishes, silver conductive inks and dielectrics.
- * Excellent durability and toughness giving long lasting switches, particularly when compared with polycarbonate.
- * Greatly superior solvent resistance to polycarbonate, making Melinex® ST505 & ST506 particularly suitable for use in many industrial applications.

Approvals

This product is not UL registered.

Film Properties

Property	Unit	Typical Values	Test Method
Physical		1000	
C.O.F. (static)		<0.70	ASTM D1894
Elongation at Break MD	%	185	ASTM D822
Elongation at Break TD	%	105	ASTM D822
Tensile Strength MD (break)	psi	25,600	ASTM D882
Tensile Strength MD 5%	psi	14,600	ASTM D882
Tensile Strength TD (break)	psi	28,600	ASTM D882
Tensile Strength TD 5%	psi	14,700	ASTM D882
Optical		1000	
Haze	%	2.0	ASTM D1003
Total Light Transmission (TLT)	%	90.0	ASTM D1002

Thermal		1000	
Coefficient of Hygroscopic Expansion	in/in %RH	6×10^{-6}	40%-80% RH
Coefficient of Thermal Expansion	in/in/°F	10×10^{-6}	68-122 °F
Melting Point (PEAK)	°C	265	ASTM E794-85
Shrinkage MD (150°C)	%	0.1	Unrestrained @ 150 °C/30 min
Shrinkage TD (150°C)	%	0.0	Unrestrained @ 150 °C/30 min

Disposal Advice

Disposal of Melinex® ST505 & ST506 does not present special disposal problems. Where waste occurs in a clean, uncontaminated form it can be recycled. In most circumstances, once Melinex® ST505 & ST506 has been laminated, coated, printed or metallised, incineration with Energy Recovery is the most environmentally efficient recovery route. Melinex® ST505 & ST506 can also be burned in an incinerator with normal refuse or can be buried as a relatively inert material in a landfill. The disposal method should comply with appropriate local and country regulations.

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The information provided in this Product Information Sheet corresponds to our knowledge on the subject at the date of its publication. This information may be subject to revision as new knowledge and experience becomes available. The data provided fall within the typical range of product properties and relate only to the specific material designated; these data may not be valid for such material used in combination with any other materials or additives or in any process, unless expressly indicated otherwise. The data provided should not be used to establish specification limits or used alone as the basis of design; they are not intended to substitute for any testing you may need to conduct to determine for yourself the suitability of a specific material for your particular purposes. Since Mylar Specialty Films cannot anticipate all variations in actual end-use conditions Mylar Specialty Films makes no warranties and assumes no liability in connection with any use of this information. Nothing in this publication is to be considered as a license to operate under or a recommendation to infringe any patent rights. **Caution:** Medical device applications incorporating Mylar®, Melinex® or Kaladex® films must be reviewed and approved under Mylar Specialty Films Medical Device Policy. Mylar®, Melinex® and Kaladex® films are not intended for implantation in the human body. For other applications, please contact your Technical Service Representative for more details. Copyright © 2026

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