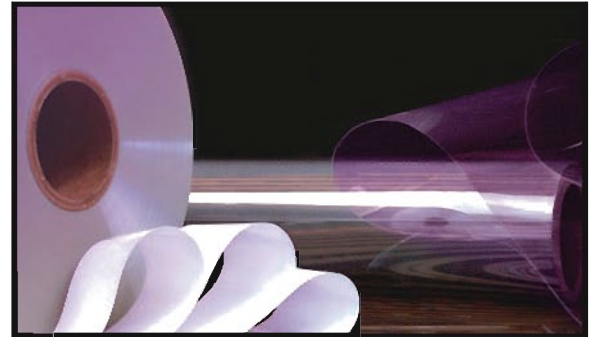
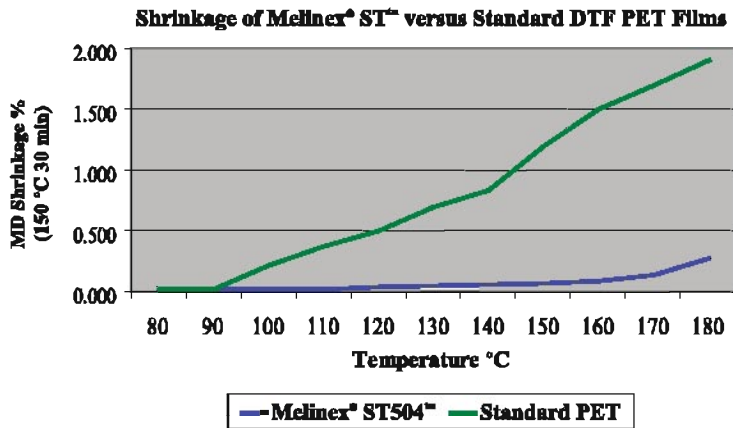




## Melinex® ST™ films provide:

- Predictable dimensional changes with variable heat and moisture
- Superior sheet flatness for better web handling and higher yields
- High tensile strength and stiffness to permit higher processing speeds
- Resistance to moisture and chemicals in demanding applications
- Engineered surfaces with primer systems to resolve difficult adhesion challenges

By applying a proprietary thermal stabilization technology which enables higher temperature film processing and versatility in a wide range of customer processes and applications, Melinex® ST™ films widen the working temperature of PET films from approximately 185 °F (85 °C) to 302 °F (150 °C) or higher.



Roll widths available up to 79 inches (2 m)

## Widest selection of high-performing stabilized films in the market

Base PET Film Key Features	Film Type	Thickness Available		Adhesion Primer System		Market Applications
		(mils)	(microns)	Side 1	Side 2	
<b>Crystal Clear</b> High transparency, clean, smooth, adherable surface	ST504	5, 7	125, 175	T		ITO, Displays, Flexible Electronics, UL 94VTM-2
	ST506	5, 7	125, 175	T	T	Membrane Touch Switch, Solvent Ink Printing, Flexible Circuitry, Displays, UL 94VTM-2
	ST725	7	175	P	P	Membrane Touch Switch, Multi-pass Solvent & UV Printing
	ST730	5, 7, 10	125, 175, 250	Y	P	Membrane Touch Switch, Multi-pass Solvent & UV Printing
	ST617	10	250	T	T	Display, Wide Screen TV
<b>Very Clear</b> Transparency, clean, smooth	HLA*	2, 3, 5	50, 75, 125			ITO, Displays, Flexible Electronics, Membrane Touch Switches, UL 94VTM-2
<b>Slightly Hazy</b> Good handling & tracking, flatness, clean	SL*	2, 3, 5	50, 75, 125			MD Shrinkage < 0.30%, Flexible Printed Circuits, Electronics, Laminations, UL 94VTM-2
	SLA*	2, 5	50, 125			Flexible Printed Circuits, Electronics, Laminations, UL 94VTM-2
	ST507	2, 4, 5	50, 100, 125			Membrane Touch Switch, UL 94VTM-2 Rated
	STXRF24	2	50	M	M	RFID Antenna, Printed Electronics, Solvent and Aqueous Ink Printing
	STXRF26	2	50	N	N	RFID Antenna, Printed Electronics, Solvent and Aqueous Ink Printing
	ST557	2	50	Y	Y	RFID Antenna, Printed Electronics
<b>Bright White</b> Bright white film, flatness, adherable surface	ST329	5, 7, 10	125, 175, 250			Medical Test Strips
	ST529	2	50			Labels, Laminations, UL 94VTM-2
	ST328	14	350	P	P	Medical Test Strips, Solvent Ink Printing
	ST339	5, 7, 10	125, 175, 250	T	T	Medical Test Strips, Cards, Industrial, Solvent Ink Printing

\*Teijin Tetoron® brand

Dimensional Stability: MD and TD shrinkage for all stabilized films is < 0.1% (150 °C, 30 minutes) unless indicated otherwise

## Innovative designs. Versatile applications.

<b>Market</b>	<b>Applications</b>
<i>Displays</i>	<ul style="list-style-type: none"> <li>• Flexible Displays</li> <li>• Touch Screens</li> <li>• Backplanes</li> <li>• Electroluminescent Lamps</li> </ul>
<i>Membrane Switches and Overlays</i>	<ul style="list-style-type: none"> <li>• Appliances</li> <li>• Instrumentation &amp; Controls</li> <li>• Automotive</li> </ul>
<i>Medical Diagnostics</i>	<ul style="list-style-type: none"> <li>• Medical Test Strips</li> </ul>
<i>Electronics</i>	<ul style="list-style-type: none"> <li>• Printed Electronics</li> <li>• Flexible Circuitry</li> <li>• RFID Antennas</li> <li>• Automotive</li> <li>• Labels &amp; Cards</li> </ul>
<i>Energy</i>	<ul style="list-style-type: none"> <li>• Photovoltaics</li> <li>• Active Windows</li> </ul>
<i>Industrial</i>	<ul style="list-style-type: none"> <li>• High Temperature Tapes</li> <li>• Casting sheets</li> <li>• Laminates</li> </ul>

## Product quality assurance and reliable supply.

DuPont Teijin Films integrates its manufacturing and supply chain to ensure a highly reliable supply of quality film products to our customers. By leveraging our experience and technology, we have an outstanding ability to respond quickly and flexibly to market trends and customer needs. Our cutting-edge approach provides other benefits such as:

- Improved quality control and testing
- Batch-to-batch consistency
- Clean film surfaces
- Application design expertise
- Rapid innovation and customized prototyping

### Melinex® ST504™ 7 mil

<b>General</b>	
Density	1.395 g/cc
Specific Heat	1.3 kJ/kg•K
Refractive Index (avg)	1.65
Water Absorption (24 hr)	< 0.8% wt
Water Vapor Transmission Rate (WVTR)	~4 g/m <sup>2</sup> /day
Oxygen Transmission (@ 1 atm)	7.5 cc/m <sup>2</sup> /day
Surface Roughness (Ra)	1.5 nm
Melting Point	255-260 °C
Surface Energy	~40 dyne/cm
<b>Thermal</b>	
Upper Processing Temperature Limit	150 °C
Thermal Shrinkage (150 °C, 30 min, MD & TD)	< 0.10%
Coefficient of Linear Thermal Expansion (25-100 °C)	< 18 ppm/°C
Coefficient of Thermal Conductivity (25-75 °C)	0.14 W/m•K
Continuous Use Temperature	130 °C
<b>Mechanical</b>	
Tensile Strength - Break	23,000 psi
Tensile Strength -Yield	12,500 psi
Tensile Elongation at Break	160 %
Tensile Elongation at Yield	~5%
Tensile Modulus	550,000
Poisson's Ratio	0.33
<b>Optical</b>	
Light Transmission (visible)	89%
Haze	0.3 - 1.0%
<b>Electrical</b>	
Dielectric Strength	2800 V/mil
Dielectric Constant	3.0 - 3.3
Surface Resistivity	10 <sup>14</sup> ohms/sq
Volume Resistivity	10 <sup>18</sup> ohms/cm
<b>Chemical Resistance</b>	
Dilute Acids and Alkalis	Good
Concentrated Alkalis	Poor
Concentrated Hydrochloric Acid	Fair
Concentrated Sulphuric Acid	Poor
Greases, Oils, Fats	Good
Organic Solvents, Alcohols, and Hydrocarbons	Good
Ketones, Esters, Chlorinated Compounds	Good
Phenols, Cresols, Chlorinated Phenols	Poor



