



Melinex®

polyester film

MXTD120 Issue 4

Melinex® S

Melinex® S is a general purpose film which combines excellent handling characteristics with a slightly hazy appearance. It is available in specific thicknesses from 12 to 125 micron and is used for the full range of Melinex® applications

TYPICAL VALUES OF PROPERTIES

Property	Test Methods	Unit	Value							
			Thickness μm							
			12	19	23	36	50	75	100	125
General										
Area Yield	--	m^2/kg	59	37	31	20	14	9.5	2.6	5.7
Relative Density (at 23°C)	ASTM D 1505-79 (modified to Melinex® test method)	--	1.40							
Thermal										
Melting point		°C	~248							
Coefficient of thermal expansion (between 20 and 50°C)		1/K (cm/cm degC)	35×10^{-6} (MD) 28×10^{-6} (TD)							
		%								
Shrinkage (after 5 minutes at 190°C)			3 (MD) 1 (TD)							
Mechanical										
Tensile strength at break	ASTM D 882-83 (23°C at 50% rh Strain rate 50% /min)	All thicknesses	MD*		TD**					
		kgf/mm^2	20		26					
Elongation at break	As above	%	125		80					
Slip (coefficient of static friction)	ASTM D 1894-78 (modified to Melinex® test method)		<0.50							

Optical

			Thickness μm							
			12	19	23	36	50	75	100	125
Haze	ASTM D 1003-77 (Measured on Gardner Hazemeter)	%	3	4	6	9	13	14	20	26
Total luminous transmission (TLT)	As above	%	87.9	87.8	87.7	87.1	87.0	86.3	85.7	85.2

Electrical

Breakdown voltage	ASTM D 149-81 (0.25 inch electrodes in dry air at 25°C)	kV	4.8	6.1	6.4	8.3	10	12	14	16
Surface resistivity	ASTM D 257-83 (500 V dc at 20°C and 54% RH)	ohm/€					10^{13}			
Volume resistivity	ASTM D 257-83 (100 V dc at 25°C and 1000s)	ohm m					10^{15}			
Permittivity			All thicknesses							
23°C, 50Hz	ASTM D 150-81	--								3.26
23°C, 1kHz		--								3.24
23°C, 10kHz		--								3.21
0°C, 50Hz		--								3.26
50°C, 50Hz		--								3.27
100°C, 50Hz		--								3.35
150°C, 50Hz		--								3.65
Dissipation factor										
23°C, 50Hz	ASTM D 150-81	--								0.002
23°C, 1kHz		--								0.0055
23°C, 10kHz		--								0.011
0°C, 50Hz		--								0.004
50°C, 50Hz		--								0.0015
100°C, 50Hz		--								0.007
150°C, 50Hz		--								0.006

1 μm = 1 micron = 0.001 mm approx. 1 gauge

*MD = Machine Direction

**TD = Transverse Direction

Enquiries should be addressed to:

DuPont Teijin Films (Luxembourg) SA
 L-2984 Luxembourg
 Telephone: +352 26164004
 Fax No: +352 2616 5000

This information corresponds to our current knowledge on the subject. It is offered solely to provide possible suggestions for your own experimentations. It is not intended, however, to substitute for any testing you may need to conduct to determine for yourself the suitability of our products for your particular purposes. This information may be subject to revision as new knowledge and experience becomes available. Since we cannot anticipate all variations in actual end-use conditions, DuPont Teijin 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 right.



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.

Melinex®, Kaladex®, Mylar®, Cronar®, Teonex® and Teijin® - Tetoron® are registered trademarks of DuPont Teijin Films. Only DuPont Teijin Films makes Melinex® brand, Kaladex® brand, Mylar® brand, Cronar® brand, Teonex® brand and Teijin® - Tetoron® brand films.



Melinex®

Only by DuPont Teijin Films