

DuPont Teijin Films

Melinex® O

Polyethylene Terephthalate (PET)

Description Melinex® O is a sparkling clear polyester film (OD = knurled)

Applications Used where very high transparency is more important than the best handling qualities.

UL Classification: UL94 HB Registration# E93687

Properties	Unit	Test Method	Other		
Thickness Micron	um	Micrometer method	125	175	250
Thickness Gauge	gauge		500	700	1000
Thickness Thou	"		0.0050	0.0070	0.010

Yield

Substance Yield g/M2	g/M2		175	250	357
Yield M2/ Kg	M2/Kg		5.7	4.0	2.8

Optical

Haze	%	ASTM D 1003-77	0.4	0.7	1.5
Total luminous transmission	%	ASTM D 1003-77	89.5	89.2	88.7

Mechanical Properties MD

Tensile Strength	kgf/mm2	ASTM D 882-83	20		
Elongation at break	%	ASTM D 882-83	125		

Mechanical Properties TD

Tensile Strength	kgf/mm2	ASTM D 882-83	20		
Elongation at break	%	ASTM D 882-83	80		

Thermal Properties MD

Upper melt temperature	°C	ASTM E794-85	255 - 260	255 - 260	255 - 260	
Coefficient of thermal expansion	1/K (cm/cm deg)	ASTM E794-85	between 20 and 50°C	19 x 10 (pow -6)	19 X 10 (pow -6)	19 x 10 (pow -6)
Shrinkage	%	ASTM E794-85	after 5 minutes at 190°C	3	3	3

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(cont)

Thermal Properties TD

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Electrical

Dielectric Strength KV/mm	ASTM D 149-81	(6.35 electrodes in dry air at 25°C)	125	105	No Data
Surface resistivity OHM/	ASTM D 257-83	(500V at 20°C and 54% rh)	>10(pow.13)		
Volume Resistivity ohm m	ASTM D 257-83	(100V at 25°C and 100s)	10 (pow. 15)		

Permittivity

23°C, 50Hz	ASTM D 150-81	3.26
23°C, 1KHz	ASTM D 150-81	3.24
23°C, 10 KHz	ASTM D 150-81	3.21
0°C, 50Hz	ASTM D 150-81	3.26
50°C, 50Hz	ASTM D 150-81	3.27
100°C, 50Hz	ASTM D 150-81	3.35
150°C, 50Hz	ASTM D 150-81	3.65

Power Factor

23°C, 50Hz	ASTM D 150-81	0.002
23°C, 1Khz	ASTM D 150-81	0.0055
23°C, 10Khz	ASTM D 150-81	0.011
0°C, 50Hz	ASTM D 150-81	0.004
50°C, 50Hz	ASTM D 150-81	0.0015
100°C, 50Hz	ASTM D 150-81	0.007
150°C, 50Hz	ASTM D 150-81	0.006

* Disclaimer: This information is derived from multiple sources. Please contact DuPont directly for official information.