DuPont Teijin Films™

MELINEX® 238

Product Description

Melinex® 238 is a translucent white polyester film used for electical insulation. It has been specially developed for use as an electrical insulation material in rotating electrical machines. It is available in a range of thicknesses between 300 and 1400 gauge. This is a low oligomer film suitable for hermetic motor applications where oligomer extraction needs to be limited.

Approvals

UL Component Registration (RTI = 140/125°C) - for 300 gauge film (0.075 mm) the RTI is 140°C (Electrical) and 125°C (Mechanical - STR)
UL Component Registration (RTI = 140/130°C) - for 1000 gauge film (0.25 mm) the RTI is 140°C (Electrical) and 130°C (Mechanical - STR)

Typical Properties

Available Thickness [Gauge]
300; 500; 760; 900; 1000; 1200; 1400

Property	Thickness	Value	Units	Test
BARRIER				
Water Absorption	300 - 1400	0.55	%	ASTM D570-63 (1972), 1 week at 23°C
ELECTRICAL				
Breakdown Voltage	500	16	kV	50 Hz continuously increasing at 500 V/sec, 6.3 mm electrodes
Breakdown Voltage	760	19	kV	50 Hz continuously increasing at 500 V/sec, 6.3 mm electrodes
Breakdown Voltage	1000	23	kV	50 Hz continuously increasing at 500 V/sec, 6.3 mm electrodes
Breakdown Voltage	1400	26	kV	50 Hz continuously increasing at 500 V/sec, 6.3 mm electrodes
Surface Resistivity	300 - 1400	> 10^13	Ohms/sq	ASTM D257, 500 V DC @ 20°C 54% RH
Volume Resistivity	300 - 1400	10^15	log Ohm m	100 V D.C. @ 25°C for 100 sec
PHYSICAL				
C.O.F. (static)	300 - 1400	0.30		ASTM D1894
Density	300 - 1400	1.4	g/cc	ASTM D1505
Elongation at Break MD	300 - 1400	150	%	ASTM D882A
Elongation at Break TD	300 - 1400	130	%	ASTM D882A
Oligomer Extraction	300 - 1400	0.6	%	24 hours boiling Xylene
Tensile Strength MD	300 - 1400	29.9	kpsi	ASTM D882A
Tensile Strength TD	300 - 1400	31.3	kpsi	ASTM D882A
Yield (nominal)	500	4,000	in²/lb	
Yield (nominal)	760	2,600	in²/lb	
Yield (nominal)	1000	2,000	in²/lb	
Yield (nominal)	1400	1,400	in²/lb	

Contact Info

DuPont Teijin Films U.S. Limited Partnership
3600 Discovery Drive
Chester, VA 23836 USA
Tel: (800) 635-4639
Fax: (804) 530-9867

Disclaimer

Note: These values are typical performance data for DuPont Teijin Films' polyester film; they are not intended to be used as design data. We believe this information is the best currently available on the subject. It is offered as a possible helpful suggestion in experimentation you may care to undertake along these lines. It is subject to revision as additional knowledge and experience is gained. DuPont Teijin Films makes no guarantee of results and assumes no obligation or liability whatsoever in connection with this information. This publication is not a license to operate under, or intended to suggest infringement of, any existing patents.

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