

**POLYESLINE S.L.**

Polígono Industrial "Els Mollons". C/ Tapissers, 4 – 46970 Alaquas, Valencia –Spain.

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Technical Datasheet - US Customary Units

Melinex® 238

Product Description

Melinex® 238 is a translucent white polyester film used for electrical 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. It is available in thicknesses of 300, 500, 760, 900, 1000, 1200 and 1400 gauge.

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

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

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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	in ² /lb	
Yield (nominal)	760	2,600	in ² /lb	
Yield (nominal)	1000	2,000	in ² /lb	
Yield (nominal)	1400	1,400	in ² /lb	

Date of Last Revision: 01 May 2024

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 © 2024

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