



Material Data Sheet

Product: Polyethersulfone	Base Material: Film
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Description

Polyethersulfone (PES) is an amorphous thermoplastic material that combines excellent thermal stability, high strength and toughness, excellent hydrolytic stability, transparency, and good resistance to environmental stress cracking. PES shows good chemical resistance along with a high heat deflection temperature of 399 °F (204 °C). The coefficient of linear expansion remains constant at temperatures of up to nearly 200 °C, making films suitable for applications where high heat/low shrink specs are needed.

Typical Properties

<u>Physical and Thermal Properties</u>	Test method	Typical values			
		SI Units		US Customary Units	
Glass Transition Temperature	ASTM D-3418	220 °C		428 °F	
Water Absorption @ 50 °C (122 °F), 75% RH, 24 hrs	ASTM D-570	0.5%		0.5%	
Yield	internal	737 m ² /kg/μm		20,408 in ² /lb/mil	
<u>Mechanical Properties</u>	Test Method	MD	TD	MD	TD
Stress at Yield @ 23°C (73°F)	ASTM D-882	71 MPa	72 MPa	10,300 psi	10,400 psi
Elongation at Yield @ 23°C (73°F)	ASTM D-882	7.7%	7.5%	7.7%	7.5%
Stress at Break @ 23°C (73°F)	ASTM D-882	66 MPa	65 MPa	9,600 psi	9,500 psi
Elongation at Break @ 23°C (73°F)	ASTM D-882	133%	139%	133%	139%
Modulus @ 23°C (73°F)	ASTM D-882	2,096 MPa	2,089 MPa	304 kpsi	303 kpsi
Dart Impact	ASTM D-1709	385 g		0.85 lb	
Tear Propagation	ASTM D-1922	30 g force	29 g force	0.066 lbf	0.064 lbf
Tear Resistance	ASTM D-1004	1,680 g force	1,780 g force	3.71 lbf	3.92 lbf
<u>Electrical Properties</u>	Test Method				
Dielectric Strength	ASTM D-149	4,670 V/mil			

The information presented in this publication is believed to be accurate and is not intended to constitute a specification. The values given reflect average material characteristics and may vary slightly between base suppliers. Users should evaluate the material to determine the suitability for their own particular application.

Base on terms and conditions
 Seller's only obligation shall be to replace such quantity of the product proven to be defective. Seller shall not be liable for any injury, loss or damage, direct or consequential, arising out of the use, or inability to use the product for his/her use, and the user assumes all risk and liability whatsoever in connection therewith. The foregoing may not be changed, except by an agreement signed by an officer or seller. We hereby certify that goods covered by this quotation have been produced in compliance with the Fair Labor Standards Act of 1983, as amended. Any credit memos to purchaser shall expire if not used within one year from date of credit memo.