



Material Data Sheet

Product: Polysulfone	Base Material: Film
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Description

Polysulfones (PSU) are tough, rigid, high-strength thermoplastics that are suitable for continuous use up to 300 °F (149 °C). The resins are resistant to oxidation and hydrolysis and withstand prolonged exposure to high temperatures and repeated sterilization. Polysulfones are highly resistant to mineral acids, alkali, and salt solutions. PSU is also highly resistance to degradation by gamma or electron beam radiation.

Typical Properties

<u>Physical and Thermal Properties</u>	Test method	Typical values			
		SI Units		US Customary Units	
Glass Transition Temperature	ASTM D-3418	190 °C		374 °F	
Water Absorption @ 50 °C (122 °F), 75% RH, 24 hrs	ASTM D-570	0.3%		0.3%	
Yield	internal	753 m ² /kg/μm		20,833 in ² /lb/mil	
<u>Mechanical Properties</u>	Test Method	MD	TD	MD	TD
Stress at Yield @ 23°C (73°F)	ASTM D-882	68 MPa	763 MPa	9,900 psi	9,200 psi
Elongation at Yield @ 23°C (73°F)	ASTM D-882	5%	5%	5%	5%
Stress at Break @ 23°C (73°F)	ASTM D-882	59 MPa	57 MPa	8,500 psi	8,200 psi
Elongation at Break @ 23°C (73°F)	ASTM D-882	55%	35%	55%	35%
Modulus @ 23°C (73°F)	ASTM D-882	2,310 MPa	2,340 MPa	335 kpsi	340 kpsi
Dart Impact	ASTM D-1709	399 g		0.88 lb	
Tear Propagation	ASTM D-1922	12 g force	12 g force	0.026 lbf	0.026 lbf
Tear Resistance	ASTM D-1004	960 g force	970 g force	2.13 lbf	2.14 lbf
<u>Electrical Properties</u>	Test Method				
Dielectric Strength	ASTM D-149	3,200 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.