



## Material Data Sheet

<b>Product:</b> Polyphenylsulfone	<b>Base Material:</b> Film
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### Description

Polyphenylsulfone (PPSU) is an amorphous thermoplastic material that offers exceptional hydrolytic stability, and toughness superior to other commercially-available high-temperature engineering films. The polymer is inherently flame retardant, and also has excellent thermal stability, Making films suitable for applications where very low shrink at high temperatures 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	0.4%		0.4%	
Yield	internal	770 m <sup>2</sup> /kg/μm		21,308 in <sup>2</sup> /lb/mil	
<u>Mechanical Properties</u>	Test Method	MD	TD	MD	TD
Stress at Yield @ 23°C (73°F)	ASTM D-882	68 MPa	59 MPa	9,900 psi	8,600 psi
Elongation at Yield @ 23°C (73°F)	ASTM D-882	9.2%	6.8%	9.2%	6.8%
Stress at Break @ 23°C (73°F)	ASTM D-882	92 MPa	70 MPa	13,400 psi	10,100 psi
Elongation at Break @ 23°C (73°F)	ASTM D-882	143%	102%	143%	102%
Modulus @ 23°C (73°F)	ASTM D-882	1,590 MPa	1,980 MPa	231 kpsi	287 kpsi
Dart Impact	ASTM D-1709	538 g		1.18 lb	
Tear Propagation	ASTM D-1922	10 g force	9 g force	0.022 lbf	0.020 lbf
Tear Resistance	ASTM D-1004	857 g force	930 g force	1.89 lbf	2.05 lbf
<u>Electrical Properties</u>	Test Method				
Dielectric Strength	ASTM D-149	4,900 V/mil			
Dielectric Constant @ 1MHZ	ASTM D-150	1.38		1.38	

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.