



## Material Data Sheet

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

Polyimide (PI) is a film for use as a dielectric substrate for flexible printed circuits and high density interconnections. PI is the preferred dielectric film for very fine patch circuitry due to its superior dimensional stability, lay-flat, high modulus, and a coefficient of thermal expansion matched to copper. Polyimide also has very low moisture absorption and is laser ablatable.

### Typical Properties

<u>Mechanical</u>	Test Method	Typical Value
Tensile Strength, Kpsi	ASTM D-882	50
Modulus, Kpsi	ASTM D-882	780
Elongation, %	ASTM D-882	50
<u>Electrical</u>		
Dielectric strength, v/mil	ASTM D-149	7000
Dielectric Constant @ 1Khz	ASTM D-149	3.1
Dissipation Factor	ASTM D-149	0.002
Volume Resistivity, ohm/cm	ASTM D-149	1.00E+17
Surface Resistivity, ohm/cm	ASTM D-149	1.00E+17
<u>Thermal</u>		
Meltpoint, polyimide, °C	ASTM E-794	none
CTE ppm/ °C (50-200 C)	TMA	16
Tg °C	DMA	354
Dimensional Stability @ 150 °C,%	IPC-TM-650	0.05
Flammability	UL-94	94V-0
Temperature Index, min/ °C	UL-746B	200
<u>Chemical</u>		
Moisture Absorption @ 100% RH, %	IPC-TM-650	1.8
Water Vapor Permeability, gms/m <sup>2</sup> /day	ASTM E-96	5

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.