



ULTEM™ 1000B Film

GE Structured Products

DESCRIPTION

ULTEM™ 1000B film is a high performance thermoplastic Polyetherimide material. The combination of high temperature resistance, low moisture absorption and excellent dielectric properties makes ULTEM film a good candidate for a broad range of Electronic applications. ULTEM film products are thermo-formable and can be heat-sealed to a wide variety of materials.

CONFIGURATION

Gauges: 50 µm (0.002") to 750 µm (0.030").
 Standard Roll Width: 1220mm (48")
 Texture: Smooth/Ultrafine matte
 Color: Natural Amber

TYPICAL PROPERTY VALUES* (125 µm Gauge unless noted)

Property	Test Method	Units	Value
PHYSICAL			
Specific Gravity	ISO 1183	kg/m ³	1270
Water Absorption, Equilibrium, 23°C	ASTM D570	%	1.25
MECHANICAL			
Tensile Modulus	ISO R527	MPa	2900
Tensile Strength @ Yield	ISO R527	MPa	100
Tensile Elongation @ Yield	ISO R527	%	6.5
Tensile Strength @ Break	ISO R527	MPa	95
Tensile Elongation @ Break	ISO R527	%	60
Tear Strength Initiation @ 50 µm	ASTM D1004	N	18
Tear Strength Propagation @ 50 µm	ASTM D1938	N	0.21
THERMAL			
Coefficient of Thermal Expansion	IPC-TM-650	ppm/°C	52
Shrinkage @ 150°C & 50 µm	IPC-TM-650	%	0.17
Shrinkage @ 190°C & 50 µm	IPC-TM-650	%	0.25
Glass Transition Temperature	DMA	°C	217
Thermal Conductivity (Bars)	ASTM C177	W/m°C	0.22
ELECTRICAL			
Dielectric Strength @ 50 µm Oil	ASTM D149	Volts/mil	5,000
Dielectric Constant	IPC-TM-650		3.2
Dissipation Factor	IPC-TM-650		0.005
Volume Resistivity	ASTM D257	Ω-cm	2.5 x 10 ¹⁵
Surface Resistivity	ASTM D257	Ω/	1.9 x 10 ¹⁶
FLAMMABILITY	UL 94	VTM0	Pending

Film

ULTEM™

*These are typical properties and are not intended for specification purposes. If minimum certifiable properties are required, please contact your local GE Structured Products representative or the GE Structured Products Quality Services Department

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