

# Ultem\* 1000B Black Film Product Datasheet

## Description

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

**Color code :** 71082

**Gauges:** 25  $\mu\text{m}$  +/- 5%

## Typical Property Values \*\*

Property	Test Method	Units	Value
<b>Physical</b>			
Specific Gravity	ISO 1183	g/cc	1.27
Water Absorption, Equilibrium at 23°C	ASTM D570	%	1.25
<b>Mechanical</b>			
Tensile Modulus	ISO R527	MPa	2,800
Tensile Strength @ Yield	ISO R527	MPa	100
Tensile Elongation @ Yield	ISO R527	%	6.0
Tensile Strength @ Break	ISO R527	MPa	113
Tensile Elongation @ Break	ISO R527	%	105
Tear Strength Initiation	ASTM D1004	N	5.2
<b>Thermal</b>			
Coefficient of Thermal Expansion	IPC-TM-650	ppm/°C	52
Shrinkage @ 170°C EXT. DIR.	IPC-TM-650	%	0.300
Shrinkage @ 170°C CROSS. DIR.	IPC-TM-650	%	0.181
Glass Transition Temperature	DMA	°C	217
<b>Electrical</b>			
Dielectric Strength @ 25 $\mu\text{m}$	ASTM D149	kV/mm	185
<b>Flammability</b>			
UL Performance (internal GE testing)	UL 94		VTM-0

\* Ultem is a trademark of General Electric Company.

\*\* 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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