

Meldin[®] 7001 COMPRESSION MOLDED

The following table is a list of typical physical property values for Meldin[®] 7001 Compression Molded

Properties	ASTM	Units [Metric]	Value [Metric]
GENERAL			
Specific Gravity	D792	—	1.43
Hardness Rockwell E	D785	—	40 – 55
Water Absorption, 24 Hours	D570	%	0.23
Water Absorption, 48 Hours	D570	%	0.64
Limiting Oxygen Index	D2863	—	100

MECHANICAL			
Tensile Strength	D638	psi [MPa]	12,500 [86.2]
Elongation	D638	%	8.0
Flexural Strength	D790	psi [MPa]	15,800 [109]
Flexural Modulus	D790	psi x 10 ⁵ [GPa]	4.6 [3.2]
Compressive Stress @ 1% strain	D695	psi [MPa]	3,800 [26]
Compressive Stress @ 10% strain	D695	psi [MPa]	18,500 [128]
Compressive Modulus	D695	psi x 10 ⁵ [GPa]	3.8 [2.6]
Deformation under Load @ 2000 psi	D621	%	0.1

ELECTRICAL			
Dielectric Strength, Short time 2mm (.08") thick	D149	V/mil [MV/m]	580 [22.9]
Dielectric Constant 100 Hz	D150	—	3.18
Dielectric Constant 10 KHz	D150	—	3.16
Dielectric Constant 1 MHz	D150	—	3.14
Surface Resistivity	D257	Ohm-Sq	10 ¹⁵ – 10 ¹⁶

THERMAL			
Coefficient of Thermal Expansion 73 – 500 °F [23 – 260 °C]	E831	in/in/°F x 10 ⁻⁵ [m/m/°C]	2.7 [4.9]
Thermal Conductivity	F433	BTU in/hr ft ² °F [W/m.K]	2.4 [0.34]
Flammability	UL94	—	V-0, 5VA

MECHANICAL @ 500 °F [260 °C]			
Tensile Strength	D638	psi [MPa]	6,250 [43.1]
Elongation	D638	%	5.0
Flexural Strength	D790	psi [MPa]	9,100 [63]
Flexural Modulus	D790	psi x 10 ⁵ [GPa]	2.5 [1.7]

SPECIFICATION QUALIFICATION

ASTM D 6456-99 Standard Specification for Finished Parts Made from Polyimide Resin (Type I P)

SAE AMS 3644G Polyimide, Molded Rod, Bar and Tube, Plaque, and Formed Parts (Class 1 Form P)

MIL-R-46198 Resin, Polyimide, Hot Pressed or Pressed and Sintered (Type I P)

NOTE: The data listed here falls within the normal range of properties but should not be used to establish specification limits nor used alone as the basis of design. Saint-Gobain Performance Plastics assumes no obligation or liability for any advice furnished by it or for results obtained with respect to the products.

Features / Benefits

- Strong thermal and electrical insulation.
- Popular choice for structural parts in aerospace applications.
- High heat resistance and purity.

Working Temperature Range

- -112 °F to + 600 °F
[- 80 °C to + 315 °C]

Color

- Brown

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