

# Meldin<sup>®</sup> 7021 COMPRESSION MOLDED

The following table is a list of typical physical property values for Meldin<sup>®</sup> 7021 Compression Molded

Properties	ASTM	Units [Metric]	Value [Metric]
<b>GENERAL</b>			
Specific Gravity	D792	—	1.51
Hardness Rockwell E	D785	—	25 – 40
Water Absorption, 24 Hours	D570	%	0.19
Water Absorption, 48 Hours	D570	%	0.50
Limiting Oxygen Index	D2863	—	100
<b>MECHANICAL</b>			
Tensile Strength	D638	psi [MPa]	9,500 [66]
Elongation	D638	%	4.7
Flexural Strength	D790	psi [MPa]	15,800 [109]
Flexural Modulus	D790	psi x 10 <sup>5</sup> [GPa]	5.3 [3.7]
Compressive Stress @ 1% strain	D695	psi [MPa]	4,300 [30]
Compressive Stress @ 10% strain	D695	psi [MPa]	18,000 [124]
Compressive Modulus	D695	psi x 10 <sup>5</sup> [GPa]	4.5 [3.1]
Deformation under Load @ 2000 psi	D621	%	0.1
<b>ELECTRICAL</b>			
Dielectric Strength, Short time 2mm (.08" ) thick	D149	V/mil [MV/m]	280 [11]
Dielectric Constant 100 Hz	D150	—	6.49
Dielectric Constant 10 KHz	D150	—	6.42
Dielectric Constant 1 MHz	D150	—	6.28
Dissipation Factor 100 Hz	D150	—	0.003
Dissipation Factor 10 KHz	D150	—	0.007
Dissipation Factor 1 MHz	D150	—	0.011
Surface Resistivity	D257	Ohm-Sq	10 <sup>8</sup> – 10 <sup>9</sup>
<b>THERMAL</b>			
Coefficient of Thermal Expansion 73 – 500 °F [23 – 260 °C]	E831	in/in/°F x 10 <sup>-5</sup> [m/m/°C]	2.2 [4.0]
Thermal Conductivity	F433	BTU in/hr ft <sup>2</sup> °F [W/m.K]	5 [0.72]
Flammability	UL94	—	V-0, 5VA
<b>MECHANICAL @ 500 °F [260 °C]</b>			
Tensile Strength	D638	psi [MPa]	5,700 [39]
Elongation	D638	%	3.2
Flexural Strength	D790	psi [MPa]	8,600 [59]
Flexural Modulus	D790	psi x 10 <sup>5</sup> [GPa]	3.5 [2.4]

## SPECIFICATION QUALIFICATION

ASTM D 6456-99 Standard Specification for Finished Parts Made from Polyimide Resin (Type II Class 1P)

SAE AMS 3644G Polyimide, Molded Rod, Bar and Tube, Plaque, and Formed Parts (Class 2 Form P)

MIL-R-46198 Resin, Polyimide, Hot Pressed or Pressed and Sintered (Type II Class 1P)

**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

- Self lubricating grade
- Best choice for high temperature bearings, seals and other low wear applications.

## Working Temperature Range

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

## Color

- Black

**Warranty Information:** All information contained herein is believed to be correct but is presented without any guarantee, warranty or representation of any kind, express or implied. Technical data set forth herein is based on tests and measurements conducted in our laboratory under controlled conditions. Suggestions concerning possible applications of our products are made without representation or warranty that such use is free from patent infringement and are not recommendations to infringe any patent. The user should not assume that all safety measures are indicated, or that other such measures may not be required.

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