

# Meldin<sup>®</sup> 7021 DIRECT FORMED

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

Properties	ASTM	Units [Metric]	Value [Metric]
<b>GENERAL</b>			
Specific Gravity	D792	—	1.42
<b>MECHANICAL</b>			
Tensile Strength	D638	psi [MPa]	9,100 [62.7]
Elongation	D638	%	5.5
Flexural Strength	D790	psi [MPa]	13,000 [89.6]
Flexural Modulus	D790	psi x 10 <sup>5</sup> [GPa]	4.5 [3.1]
Compressive Stress @ 1% strain	D695	psi [MPa]	3,400 [23]
Compressive Stress @ 10% strain	D695	psi [MPa]	15,300 [106]
Compressive Modulus	D695	psi x 10 <sup>5</sup> [GPa]	3.0 [2.1]
Deformation under Load @ 2000 psi	D621	%	0.14

## Thermal

Coefficient of Thermal Expansion 73 – 500 °F [23 – 260 °C]	E831	in/in/°F x 10 <sup>-5</sup> [m/m/°C]	2.5 [4.5]
Thermal Conductivity	F433	BTU in/hr ft <sup>2</sup> °F [W/m.K]	3.0 [0.43]
Flammability	UL94	—	V-0, 5VA
High Temperature Dimensional Stability @ 500 °F [260 °C]	Internal	% Change	0.04 Max

## MECHANICAL @ 500 °F [260 °C]

Tensile Strength	D638	psi [MPa]	4,700 [32]
Elongation	D638	%	5.2
Flexural Strength	D790	psi [MPa]	7,500 [51.7]
Flexural Modulus	D790	psi x 10 <sup>5</sup> [GPa]	2.6 [1.8]

## SPECIFICATION QUALIFICATION

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

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

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

**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

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SGPPL.BR.TDS.004.2006