

## Meldin® 7000 Series Properties Data – Isostatic Rods

PROPERTY	ASTM Method	Units	Meldin® 7001	Meldin® 7003	Meldin® 7021	Meldin® 7022	Meldin® 7211
<b>MECHANICAL</b>							
Tensile Strength	D638	psi (MPa)	12,500 (86)	9,000 (62.1)	9,500 (65.5)	7,500 (51.7)	6,800 (46.9)
Elongation	D638	%	7.5	4.5	4.5	3.2	3.5
Tensile Strength @ 500°F (260°C)	D638	psi (MPa)	5,400 (37)	—	5,500 (38)	—	—
Elongation @ 500°F (260°C)	D638	%	4.5	—	4.3	—	—
Flexural Strength	D790	psi (MPa)	15,200 (105)	13,600 (93.7)	15,600 (108)	13,100 (90.3)	11,300 (77.9)
Flexural Modulus	D790	psi x 10 <sup>5</sup> (GPa)	4.6 (3.2)	5.2 (3.6)	5.7 (3.9)	6.4 (4.4)	4.9 (3.4)
Compressive Stress @ 1% Strain	D695	psi (MPa)	3,300 (22.7)	3,600 (24.8)	3,800 (26.2)	4,000 (27.6)	3,300 (22.7)
Compressive Stress @ 10% Strain	D695	psi (MPa)	18,000 (124)	18,000 (124.1)	19,300 (133)	16,000 (110.3)	15,500 (106.9)
Compressive Stress @ 0.1% Offset	D695	psi (MPa)	—	6,000 (41.4)	—	6,000 (41.4)	5,300 (36.5)
Compressive Modulus	D695	psi x 10 <sup>5</sup> (GPa)	2.9 (2.0)	3.63 (2.5)	3.26 (2.3)	4.09 (2.8)	3.34 (2.3)
<b>THERMAL EXPANSION</b>							
75 to 500°F (24 to 260°C)	E-831	in/in/°F x 10 <sup>-5</sup> (m/m/°C)	2.7 (5.0)	2.87 (5.16)	2.5 (4.5)	2.23 (4.0)	2.8 (5.0)
<b>ELECTRICAL</b>							
Dielectric Strength	D149	V/mil (MV/m)	450 (18)	—	104 (4.0)	—	—
<b>OTHER</b>							
Specific Gravity	D792	—	1.43	1.61	1.51	1.67	1.55
Hardness Rockwell E	D785	—	64	46	50	24	23
Water Absorption, 24 Hours	D570	%	0.23	0.24	0.2	0.17	0.17
<b>SPECIFICATION QUALIFICATION</b>							
<b>ASTM D 6456-99</b> Standard Specification for Finished Parts Made from Polyimide Resin	Satisfies →	Type 1M	Type III Class M	Type II Class 1M	Type II Class 2M	Type II Class 3M	Type II Class 3M
<b>AMS SAE 3644G</b> Polyimide, Molded Rod, Bar and Tube, Plaque, and Formed Parts	Satisfies →	Class 1 Form M	Class 5 Form M	Class 2 Form M	Class 3 Form M	Class 4 Form M	Class 4 Form M
<b>MIL-R-46198</b> Resin, Polyimide, Hot Pressed or Pressed and Sintered	Satisfies →	Type 1M	Type III Class M	Type II Class 1M	Type II Class 2M	Type II Class 3M	Type II Class 3M

NOTE: This data 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.

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