

## Saint-Gobain Meldin® 2021 Bearing

Category : Polymer , Thermoset , Polyimide, TS

### Material Notes:

**General Notes on Meldin 2000 Series Bearing Products:**For High-Temperature, Close-Tolerance Applications. Able to withstand temperatures of 600°F with excursions to 900°F, the Medlin® 2000 Series can be machined into various configurations, from rod or sheet stock shapes. Black in color. Meldin® 2000 Series offers very high compression strength, high creep resistance, and dimensional stability. **Specific Notes on Meldin® 2021 Bearing**Meldin® 2021 is a multi-purpose bearing grade for high-temperature and high-load applications. It maintains its strength and rigidity at elevated temperatures. Applications include: Appliances, Automotive, Industrial, Semiconductor, Transportation. **Specification Notes:** Note that the specifications given for this product are typical specifications for the Meldin® 2000 Series, and individual products will vary as indicated in the material notes. Information provided by Saint Gobain Performance Products.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Saint-Gobain-Meldin-2021-Bearing.php](http://www.lookpolymers.com/polymer_Saint-Gobain-Meldin-2021-Bearing.php)

Physical Properties	Metric	English	Comments
Specific Gravity	1.48 g/cc	1.48 g/cc	ASTM D792
Water Absorption	0.13 %	0.13 %	ASTM D570
Deformation	0.090 % @Pressure 13.8 MPa	0.090 % @Pressure 2000 psi	24 hrs. Mold Direction; ASTM D621
Outgassing - Total Mass Loss	0.00 %	0.00 %	% CVCM; ASTM E55955
	0.69 %	0.69 %	% WVR; ASTM E595
	1.38 %	1.38 %	% TML; ASTM E5955

Mechanical Properties	Metric	English	Comments
Hardness, Shore D	90	90	ASTM D2240
Tensile Strength, Ultimate	13.7 MPa @Temperature 316 °C	1990 psi @Temperature 601 °F	ASTM D 638
	38.6 MPa @Temperature 260 °C	5600 psi @Temperature 500 °F	ASTM D 638
	75.8 MPa @Temperature 23.0 °C	11000 psi @Temperature 73.4 °F	ASTM D 638
Elongation at Break	3.5 % @Temperature 260 °C	3.5 % @Temperature 500 °F	ASTM D 638

Mechanical Properties	5.0 % Metric	5.0 % English	Comments
	@Temperature 23.0 °C	@Temperature 73.4 °F	
	12 %	12 %	ASTM D 638
	@Temperature 316 °C	@Temperature 601 °F	
Tensile Modulus	0.200 GPa	29.0 ksi	ASTM D 638
	@Temperature 316 °C	@Temperature 601 °F	
	1.00 GPa	145 ksi	ASTM D 638
	@Temperature 260 °C	@Temperature 500 °F	
	1.30 GPa	189 ksi	ASTM D 638
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Flexural Strength	86.1 MPa	12500 psi	ASTM D 790
Flexural Modulus	3.90 GPa	566 ksi	ASTM D 790
Compressive Yield Strength	34.4 MPa	4990 psi	ASTM D695 Modified
	@Strain 7.00 %, Temperature 316 °C	@Strain 7.00 %, Temperature 601 °F	
	62.0 MPa	8990 psi	ASTM D695 Modified
	@Strain 7.00 %, Temperature 260 °C	@Strain 7.00 %, Temperature 500 °F	
	207 MPa	30000 psi	ASTM D695 Modified
	@Strain 10.0 %, Temperature 23.0 °C	@Strain 10.0 %, Temperature 73.4 °F	
Ultimate Compressive Strength	58.6 MPa	8500 psi	ASTM D695 Modified
	@Temperature 316 °C	@Temperature 601 °F	
	100 MPa	14500 psi	ASTM D695 Modified
	@Temperature 260 °C	@Temperature 500 °F	
	227.5 MPa	33000 psi	ASTM D695 Modified
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Compressive Modulus	0.500 GPa	72.5 ksi	ASTM D695 Modified
	@Temperature 316 °C	@Temperature 601 °F	
	1.30 GPa	189 ksi	ASTM D695 Modified
	@Temperature 260 °C	@Temperature 500 °F	
	2.70 GPa	392 ksi	ASTM D695 Modified

Mechanical Properties	@Temperature 23.0 °C Metric	@Temperature 73.4 °F English	Comments
Izod Impact, Notched	0.203 J/cm	0.340 ft-lb/in	ASTM D 256

Thermal Properties	Metric	English	Comments
CTE, linear	49.0 $\mu\text{m}/\text{m}\cdot^{\circ}\text{C}$	27.2 $\mu\text{in}/\text{in}\cdot^{\circ}\text{F}$	ASTM E831-93
Thermal Conductivity	0.620 W/m-K	4.30 BTU-in/hr-ft <sup>2</sup> -°F	C518/C177
Maximum Service Temperature, Air	>= 316 °C	>= 600 °F	UL-746 B

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+15 ohm-cm	1.00e+15 ohm-cm	ASTM D257
Surface Resistance	1.00e+15 ohm	1.00e+15 ohm	ASTM D257
Dielectric Constant	11.92	11.92	ASTM D150
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
	12.41	12.41	ASTM D150
	@Frequency 10000 Hz	@Frequency 10000 Hz	
	12.65	12.65	ASTM D150
	@Frequency 100 Hz	@Frequency 100 Hz	
Dielectric Strength	7.87 kV/mm	200 kV/in	ASTM D149
Dissipation Factor	0.0067	0.0067	ASTM D150
	@Frequency 100 Hz	@Frequency 100 Hz	
	0.0096	0.0096	ASTM D150
	@Frequency 10000 Hz	@Frequency 10000 Hz	
	0.019	0.019	ASTM D150
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	

## Contact Songhan Plastic Technology Co.,Ltd.

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