

Meldin® 7021

A self-lubricating grade, Meldin® 7021, has 15% by weight graphite fillers, encapsulated by the base polyimide resin. With its low coefficient of friction and high heat resistance, Meldin® 7021 provides a very good choice for high temperature bearings, seals and other low-wear applications.

Property	Test Method	Units	Meldin® 7021
Mechanical			
Tensile Strength	ASTM D638	psi	9,500
Elongation	ASTM D638	%	4.7
Flexural Strength	ASTM D790	psi	15,800
Flexural Modulus	ASTM D790	psi	522,000
Compressive Stress @ 1% Strain	ASTM D695	psi	4,300
Compressive Stress @ 10% Strain	ASTM D695	psi	18,000
Compressive Modulus	ASTM D695	psi	450,000
Coefficient of Thermal Expansion 73°F to 500°F	ASTM E831	in/in/°F	2.2 x 10 ⁻⁵
Thermal Conductivity	ASTM F433	BTU-in/hr-ft ² -°F	5.0
Electrical			
Dielectric Strength, .08"	ASTM D149	V/mil	280
Dielectric Constant			
100 Hz	ASTM D150		-
10 KHz	ASTM D150		-
1 MHz	ASTM D150		-
Surface Resistivity	ASTM D257	ohm/square	10 ⁸ - 10 ⁹
Other			
Specific Gravity	ASTM D792		1.51
Hardness, Rockwell E	ASTM D785		25 - 40
Water Absorption, 24 hrs	ASTM D570	%	0.19
Water Absorption, 48 hrs	ASTM D570	%	0.50
Deformation Under Load, 2000 psi	ASTM D621	%	0.1
Limiting Oxygen Index	ASTM D2863		100
Mechanical Properties @ 500 °F			
Tensile Strength	ASTM D638	psi	5,700
Elongation	ASTM D638	%	3.2
Flexural Strength	ASTM D790	psi	8,600
Flexural Modulus	ASTM D790	psi	3,500,000
Specification Qualification			
ASTM D-6456-99		Satisfies	Type II Class 1P
SAE AMS 3644E		Satisfies	Class 2 Form P
MIL-R-46198		Satisfies	Type II Class 1P

Values in this table are for compression molded material.

NOTE: The information contained herein are typical values intended for reference and comparison purposes only. They should NOT be used as a basis for design specifications or quality control. Contact us for manufacturers' complete material property datasheets. All values at 73°F (23°C) unless otherwise noted.