

Mykroy/Mycalex (Mica) 400 Material Specifications

Mykroy/Mycalex® is the most versatile and efficient electrical and thermal insulating material produced to meet the demands of technical markets. This material is softer than other high temperature machinable ceramics allowing for the fabrication of intricate shapes. It can be drilled or tapped and can accommodate helical inserts. The material is dimensionally stable at temperatures ranging from -240°C to 800°C.

Physical Properties	Units	M400
Density	g/cm ³	2.6
Color	-	Dark Gray
Water Absorption	%	Nil
Mica Filler	-	Natural
Flammability	-	Does Not Burn

Mechanical Properties	Units	M400
Compressive Strength	psi / Mpa	45,000 / 310
Tensile Strength	psi / Mpa	6000 / 41.4
Modulus of Elasticity	psi x 10 ⁶ GPa	11.0 75
Impact Strength IZOD (notched)	FT-lbs/in J/cm	1.8 0.961
Flexural Strength	psi / Mpa	13,000 / 89.6
Hardness Rockwell	H / A	90 / 46

Thermal Properties	Units	M400
Max. Use Temperature	°F / °C	750 / 400
Thermal Conductivity	W/m.K	.87
Coefficient of Thermal Expansion (x10 ⁻⁶)	/° C @ 25 °C @ 350 °C @ 500 °C @ 750 °C	12.5 11.0 - -
Specific Heat	cal/g/°C	0.12

Electrical Properties	Units	M400
Dielectric Strength	V/mil	730
	kV/mm	28.7
Arc Resistance	Seconds	245
Dissipation Factor	1 MHz	0.0018
Loss Index	1 MHz	0.012
Surface Resistivity	Ω/sq (25° C)	10 ⁹
Volume Resistivity	Ω-cm (25° C)	10 ¹⁰
Dielectric Constant	1 MHz	6.7

**The information provided in this table is a compilation of publicly available data. This information is provided for comparison purposes only, and is not intended to be warrantable. Further, Technical Products, Inc. disclaims any and all liability from errors, in accuracies, or omissions.