

Mykroy/Mycalex (Mica) 600 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	M600
Density	g/cm ³	2.8
Color	-	Cream
Water Absorption	%	Nil
Mica Filler	-	Synthetic
Flammability	-	Does Not Burn

Mechanical Properties	Units	M600
Compressive Strength	psi / Mpa	32,000 / 221
Tensile Strength	psi / Mpa	5000 / 34.5
Modulus of Elasticity	psi x 10 ⁶ GPa	10.6 73.1
Impact Strength IZOD (notched)	FT-lbs/in J/cm	1.3 0.694
Flexural Strength	psi / Mpa	11,000 / 75.9
Hardness Rockwell	H / A	91 / 47

Thermal Properties	Units	M600
Max. Use Temperature	°F / °C	1100 / 600
Thermal Conductivity	W/m.K	1.32
Coefficient of Thermal Expansion (x10 ⁻⁶)	/° C @ 25 °C @ 350 °C @ 500 °C @ 750 °C	10.48 9.74 9.39 -
Specific Heat	cal/g/°C	0.11

Electrical Properties	Units	M600
Dielectric Strength	V/mil kV/mm	420 16.5
Arc Resistance	Seconds	345
Dissipation Factor	1 MHz	0.0017
Loss Index	1 MHz	0.012
Surface Resistivity	Ω/sq (25° C)	10 ¹¹
Volume Resistivity	Ω-cm (25° C)	10 ¹²
Dielectric Constant	1 MHz	6.8

**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.