



MACHINABLE GRADES TECHNICAL DATASHEET

General Properties	Unit	MM400	MM500	MM600	MM800
Density	g/cm ³	2.5	2.7	2.8	2.74
Moisture Absorption	%	Nil	Nil	Nil	Nil
Color	---	Dark gray	Light Gray	Cream	Off-White
Mica Filler	---	Natural	Synthetic		
Flammability	---	DOES NOT BURN			

Thermal Properties

Maximum Continuous Use Temperature	°F	750	930	1100	1600
	°C	400	500	600	800
Thermal Conductivity	W/m.K	0.87	1.15	1.32	1.02
Coefficient of Thermal Expansion (x 10 ⁻⁶)	/° @ 25°C	12.5	11.57	10.48	9
	/° @ 350°C	11	10.53	9.74	10.46
	/° @ 500°C	---	---	9.39	10.69
	/° @ 750°C	---	---	---	15.81

Electrical Properties (at 25°C)

Dielectric Strength	V/mil	730	530	420	480
	Kv/mil	28.7	20.9	46.5	18.9
Arc Resistance	Seconds	245	260	345	300
Dissipation Factor	1 MHz	0.0018	0.0013	0.0017	0.003
Loss Index	1 MHz	0.012	0.009	0.012	0.0207
Surface resistivity	Ω/cm (25°C)	10 ⁹	10 ¹²	10 ¹¹	5 x 10 ¹³
Volume Resistivity	Ω/cm (25°C)	10 ¹⁰	10 ¹⁴	10 ¹²	2.6 x 10 ¹⁵
Dielectric Constant	1 MHz	6.7	6.9	6.8	6.91

Mechanical Properties (at 25°C)

Tensile Strength	Psi	6000	6000	5000	6000
	Mpa	41.4	41.4	34.5	41.4
Flexural Strength	Psi	13000	12500	11000	13500
	Mpa	89.6	86.2	75.9	93.1
Compressive Strength	Psi	45000	40000	32000	40000
	Mpa	310	276	221	276
Modules of Elasticity	Psi x 10 ⁶	11	12	10.6	11.5
	Gpa	75	82.7	73.1	79.3
Hardness - Rockwell	H	90	90	91	90
	A	46	46	47	47
Impact Strength - IZOD (notched)	Ft-lbs./in	1.8	1.7	1.3	1.8
	J/cm	0.961	0.908	0.694	0.961

Glass Bonded Mica Summary Specification -- ASTM D1039

To the best of our knowledge the information contained herein is accurate; however, Crystex Composites LLC does not accept any liability regarding the accuracy of such information. Further, such information is established using standard base material and thus may change if the product ordered by the purchaser requires further processing of base material by us or the purchaser. Purchaser has the sole responsibility in determining the suitability of any material described herein for the use contemplated and the processing of such material by purchaser.

Updated March 2012