



CRYSTEX COMPOSITES LLC

Mykroy/Mycalex® Ceramics
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MOLDABLE GRADES TECHNICAL DATASHEET

General Properties	Units	MM451	MM501	MM561	MM601
Density	g/cm ³	2.5	2.6	2.6	2.57
Moisture Absorption	%	Nil	Nil	Nil	Nil
Color	---	Dark green	brown	White	Off White/Brown
Mica Filler	---	Natural	Natural	Synthetic	Synthetic/Natural
Flammability	---	DOES NOT BURN			

Thermal Properties

Maximum Continuous Use Temperature	°F	840	930	1020	1100
	°C	450	500	560	600
Thermal Conductivity	W/m.K	0.64	1.58	1.46	1.02
Coefficient of Thermal Expansion (x 10 ⁻⁶)	/° @ 25°C	10.10	10.60	10.20	9.52
	/° @ 250°C	11.95	12.44	12.80	10.02
	/° @ 450°C	12.86	13.50	13.50	10.40
	/° @ 600°C	---	---	---	12.60

Electrical Properties (at 25°C)

Dielectric Strength	V/mil	530	480	425	580
	Kv/mil	21.0	19.0	16.7	22.8
Dissipation Factor	1 MHz	0.0037	0.0100	0.0042	0.0022
loss Index	1 MHz	0.023	0.070	0.0028	0.014
Surface Resistivity	Ω/cm (25°C)	3.7 x 10 ¹⁰	5.8 x 10 ¹²	4.0 x 10 ¹⁴	1.4 x 10 ¹³
Volume Resistivity	Ω/cm (25°C)	3.9 x 10 ¹⁴	1.1 x 10 ¹⁵	1.6 x 10 ¹⁴	6.7 x 10 ¹⁵
Dielectric Constant	1 MHz	6.29	6.98	6.87	6.33

Mechanical Properties (at 25°C)

Flexural Strength	Psi	12500	13800	16000	10500
	Mpa	86.2	95.1	110	72.4
Compressive Strength	Psi	45000	45000	48000	42000
	Mpa	310	310	331	289
Flexural Modulus	Psi x 10 ⁶	5.1	6.2	6.4	4
	Gpa	35.2	42.7	44.1	27
Hardness - Rockwell	A	47	62	63	46
Impact Strength - IZOD (notched)	Ft-lbs./in	8	15	16	8
	J/cm	4.27	8.01	8.54	4.27

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.

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