



CRYSTEX COMPOSITES LLC

Mykroy/Mycalex® Ceramics

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MACHINABLE GRADES TECHNICAL DATASHEET

General Properties	UNIT	MM 400	MM 500	MM 600	MM 800
Density	g/cm ³	2.5	2.7	2.8	2.74
Moisture Absorption	%	Nil	Nil	Nil	Nil
Color	---	D-Gray	L-Gray	Cream	Off White
Mica Filler	---	Natural	Synthetic		
Flammability		DOES NOT BURN			
Thermal Properties					
Max. Continuous Use Temperature	°F	750	930	1100	1600
	°C	400	500	600	870
Thermal Conductivity	W/m.K	.87	1.15	1.32	1.02
Coefficient of Thermal Expansion (x10⁻⁶)	/°C @ 25°C	12.5	11.57	10.48	9
	@ 350°C	11.0	10.53	9.74	10.46
	@ 500°C	---	---	9.39	10.69
	@ 750°C	---	---	---	15.81
Specific Heat	cal/g°C	0.12	0.12	0.11	0.209
Electrical Properties (Tested at 25°C)					
Dielectric Strength	V/mil	730	530	420	480
	kV/mm	28.7	20.9	16.5	18.9
Arc Resistance	Seconds	245	260	345	300
Dissipation factor	1 MHz	0.0018	0.0013	0.0017	.003
Loss Index	1 MHz	0.012	0.009	0.012	.0207
Surface Resistivity	Ω/sq (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 (Tested at 25°C)					
Tensile Strength	psi	6000	6000	5000	6000
	MPa	41.4	41.4	34.5	41.4
Flexural Strength	psi	13,000	12,500	11,000	13,500
	MPa	89.6	86.2	75.9	93.1
Compressive Strength	psi	45,000	40,000	32,000	40,000
	MPa	310	276	221	276
Modulus of Elasticity	psi x 10 ⁶	11.0	12.0	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 D 1039

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