



# Mykroy-Mycalex Ceramics

## Glass-Mica Composites (Completely Inorganic)

### MOLDABLE GRADES TECHNICAL DATASHEET

General Properties	<u>UNIT</u>	<u>MM 411</u>	<u>MM 555</u>	<u>MM 561</u>	<u>MM1301</u>	<u>MM 371</u>
Density	g/cm <sup>3</sup>	3.8	3.7	3.2	3.9	4.8
Moisture Absorption	%	Nil	Nil	Nil	Nil	Nil
Color	---	L-Green*	O-White*	White	Cream	D-Green*
Mica Filler	---	Natural	Synthetic	Synthetic	Synthetic	Natural
Flammability	---	DOES NOT BURN				

#### Thermal Properties

Max. Continuous Use Temperature	°F	750	750	1400	1300	700
	°C	400	400	760	700	370
Thermal Conductivity	W/m.K	.94	1.22	1.46	1.19	.93
Coefficient of Thermal Expansion (x10 <sup>-6</sup> )	/°C @ 25°C	12.47	12.55	14.04	12.96	13.02
	@ 350°C	11.07	10.95	11.90	10.75	11.20
	@ 500°C	---	---	10.70	---	---
Specific Heat	cal/g/°C	0.24	0.24	.40	0.23	0.25

#### Electrical Properties

Dielectric Strength	V/mil	375	375	300	375	350
Arc Resistance	Seconds	325	325	205	350	300
Dissipation factor	1 MHz	0.0012	0.0113	0.0014	0.0015	0.006
Loss Index	1 MHz	0.011	0.011	0.01	0.015	0.075
Surface Resistivity	Ω/sq (25°C)	10 <sup>15</sup>	10 <sup>15</sup>	10 <sup>7</sup>	10 <sup>15</sup>	10 <sup>15</sup>
Volume Resistivity	Ω-cm (25°C)	10 <sup>13</sup>	10 <sup>14</sup>	10 <sup>8</sup>	10 <sup>14</sup>	10 <sup>14</sup>
Dielectric Constant	1 MHz	8.6	8.8	4.5	9.0	12.5

#### Mechanical Properties

Tensile Strength	psi	6500	6000	7500	6000	6500
Flexural Strength	psi	10,000	9,000	16,000	9,000	10,000
Compressive Strength	psi	33,000	34,000	50,000	30,000	35,000
Modulus of Elasticity	psi x10 <sup>6</sup>	7.0	7.2	11.3	9.2	---
Hardness - Rockwell	H	90	90	93	90	90
	A	47	47	49	47	47
Impact Strength—IZOD (notched)	Ft-lbs/in	8	8	16	8	8

#### Glass Bonded Mica Summary Specification – ASTM D 1039

\* : D = Dark; L = Light; O = Off.

“To the best of our knowledge the information contained herein is accurate; however, Crystex Composites LLC does not accept any liability regarding the accuracy or completeness of such information. Further, such information is established using standard base material and thus may change if the product ordered by purchaser requires further processing of base material by us and/or the purchase. 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.”