

Ceramatest® - Material Property Data Sheets:

General Properties	Units	Ceramatest® 400	Ceramatest® 500	Ceramatest® 1100	Ceramatest® 1600
Density	g/cm ³	2.5	2.7	2.8	2.74
Moisture Absorption	%	Nil	Nil	Nil	Nil
Color	-	dark grey	light grey	cream	off white
Mica Filler	-	Natural	hexagonal		
Flammability	-	Does Not Burn			
Thermal Properties	Units	Ceramatest® 400	Ceramatest® 500	Ceramatest® 1100	Ceramatest® 1600
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 (10x-6)	/°C 25°	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	310 - 379		
Electrical Properties	Units	Ceramatest® 400	Ceramatest® 500	Ceramatest® 1100	Ceramatest® 1600
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	1MHz	0.0018	0.0013	0.0017	.003
Loss Index	1MHz	0.012	0.009	0.012	.0207
Surface Resistivity	/sq(25°C)	10 ⁹	10 ¹²	10 ¹¹	5 x 10 ¹³
Volume Resistivity	-cm (25°C)	10 ¹⁰	10 ¹⁴	10 ¹²	2.6 x 10 ¹⁵
Dielectric Constant	1Mhz	6.7	6.9	6.8	6.91
Mechanical Properties	Units	Ceramatest® 400	Ceramatest® 500	Ceramatest® 1100	Ceramatest® 1600
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	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

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