GRADE A LAVA

Property	ASTM Method	Units	Fired Lava	Unfired Lava
Color	-	-	buff - tan	gray
Gas Permeability	-	-	porous	porous
Density	C 20-97	g/cc	2.30	2.60
Hardness	-	Mohs Scale	6	2
Water Absorption	C 20-97	%	3	2.5
Flexural Strength	F 417-87	psi	10,000	4,000
Tensile Strength	-	psi	3,000	1,000
Compressive Strength	-	psi	25,000	11,000
C.T.E., 25 – 100 ºC	C 372-96	$x10^{-6}/C$	2.9	2.5
C.T.E., 25 – 300 ºC	-	-	3.3	-
C.T.E., 25 – 600 ºC	-	-	3.6	3.1
Thermal Conductivity, 25 ºC	C 408	W/m-K	2	-
Max Use Temperature (Non-loading)	-	Fahrenheit (ºF)	2000	1200
		Celsius (ºC)	1100	650
Dielectric Strength (.125" thick)	D 149-97A	V/mil	100	80
Dielectric Constant @ 1 MHz	D 150-98	-	5.3	5.8

Note: The information in this data sheet is for design guidance only. STC does not warrant this data as absolute values. Forming methods and specific geometry could affect properties. Slight adjustments can be made to some of the properties to accommodate specific customer requirements. Most of the dense materials in the table are resistant to mechanical erosion and chemical attack. STC has performed ASTM testing qualification for certain compositions, in accordance with ASTM D2442. Please consult our technical staff for appropriate material and specific test results.

Note: In addition to the above compositions, STC offers a wide range of alternative materials. Please contact one of our applications engineers for material requirements that may not be shown above.

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