

# GRADE A LAVA

Machined From Natural Stone

Property	ASTM Method	Designation	Fired	Unfired
Color			Buff-Tan	Gray
Gas/Liquid Permeability	F134B	Atm-cc/sec	Porous	Porous
Density	C 20-97	g/cc	2.30	2.60
Hardness		Mohs	6	2
Water Absorption	C 20-97	%	4.8	2.5
Flexural Strength		PSI	10,000	4,000
Tensile Strength	-	PSI	3,000	1,000
Compressive Strength	-	PSI	25,000	11,000
Linear Coefficient of Thermal Expansion	C372-96	(@25°C - 100°C) x10 <sup>-6</sup> /°C	2.9	2.5
		(@25°C - 600°C) x10 <sup>-6</sup> /°C	3.6	3.1
Thermal Conductivity 25°C	C408	W/m-K	1.5	2.0
Max. Use Temperature (Non Loading)	-	°C	1100	650
	-	°F	2000	1200
Dielectric Strength (1/8" Thick)	D149-97A	V/mil	100	80
Dielectric Constant 1MHz	D150-98	At 25°C	5.3	5.8

NOTE: THE INFORMATION IN THIS DATA SHEET IS FOR DESIGN GUIDANCE ONLY. STC DOES NOT WARRANTY 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 TESTING IN ACCORDANCE WITH ASTM D2442 FOR CERTAIN COMPOSITIONS. PLEASE CONTACT OUR TECHNICAL STAFF FOR APPROPRIATE MATERIAL AND SPECIFIC TEST RESULTS.