

ALTRA[®] High Density Vacuum Formed Boards

ALTRA[®] high-density vacuum formed board products are available in formulations for service temperatures up to 1800°C. ALTRA[®] high-density boards are available for high temperature, oxidizing environments (**KVS**) and high temperature, reducing environments (**KVR**). ALTRA[®] boards are formed from alumina or mullite polycrystalline fibers with appropriate inorganic and organic binders. All grades are pre-fired to 1000°C or greater, resulting in an organic free composition. Possible applications include furnace hearth plates and low mass sintering setters.



		ALTRA [®] GRADE		
Properties	Units	KVS 174/700	KVS 184/700	KVR 164/702
Classification Temperature	°F	3092	3272	2912
	°C	1700	1800	1600
Service Temperature	°F	3092	3272	2822
	°C	1700	1800	1550
Density	lbs/ft ³ (kg/m ³)	45 700	45 700	45 700
Linear Shrinkage 24 hrs @ Temperature “+” indicates growth	%	0.5@1700°C 0.7@1750°C	0.1@1700°C 0.2@1750°C 0.7@1800°C	1.0@1500°C
Thermal Conductivity <i>Hot Wire Method</i>	BTUin/hrft ² °F (W/mK)			
392°F (200°C)		1.11(0.16)	1.04(0.15)	1.45(0.21)
752°F (400°C)		1.32(0.19)	1.18(0.17)	1.52(0.22)
1112°F (600°C)		NA	1.32(0.19)	1.66(0.24)
1472°F (800°C)		NA	1.52(0.22)	1.80(0.26)
1832°F (1000°C)		2.29(0.33)	1.80(0.26)	1.94(0.28)
2192°F (1200°C)		2.43(0.35)	1.94(0.28)	2.08(0.30)
2552°F (1400°C)		NA	2.15(0.31)	2.21(0.32)
Chemical Composition	%			
Al ₂ O ₃		86	82	>96
SiO ₂		14	18	<4
Fiber Type		Mullite	Mullite	Alumina