

Structural block insulation products

Product Name	TR™-19	TR™-19 HS	TR™-20	TR-2000 SL
Color	beige		off - white	white
Density, pcf (kg/m ³)	25 (400)	35 (561)	29 (465)	17.5 (280)
Continuous temperature use limit, °F (°C)	1900 (1038)		2000 (1093)	1922 (1050)
Modulus of rupture, psi (MPa), dried	110 (0.8)	175 (1.2)	110 (0.8)	155 (1.07), ambient
fired 24 hours @ 1900°F (1038°C)	100 (0.7)	-	105 (0.7)	-
Cold crushing strength, psi (MPa)				
dried	175 (1.2)	250 (1.7)	180 (1.2)	-
fired 24 hours @ use limit	65 (0.5)	-		215 (1.48)
Linear shrinkage, %				
fired 24 hrs. @ 1900°F (1038°C)	2.0	1.5	-	1.0
fired 24 hrs. @ 2000°F (1093°C)	-	-	4	-
Chemical analysis, % weight basis after firing				
Alumina, Al ₂ O ₃	12	-	4.3	-
Silica, SiO ₂	38	-	80	49
Calcium oxide, CaO	22	-	11	46
Magnesium oxide, MgO	12	-	0.8	-
Ferric Oxide, Fe ₂ O ₃	9.5	-	1.6	-
Other	6.5	-	2.5	5
Thermal conductivity, BTU•in./hr•ft²•°F (W/m•K), ASTM C 201				
mean temperature @ 500°F (260°C)	0.72 (0.11)	1.10 (0.16)	0.68 (0.09)	0.55 (0.08)
@ 1000°F (538°C)	0.83 (0.13)	1.16 (0.17)	0.79 (0.11)	0.72 (0.10)
@ 1500°F (816°C)	0.99 (0.15)	1.20 (0.17)	0.96 (0.14)	
@ 1900°F (1038°C)	1.14 (0.17)	1.35 (0.20)	-	
@ 2000°F (1093°C)	-	-	1.16 (0.17)	1.12 (0.16), 1800°F (980°C)

Safety Data Sheet (SDS): are available for all our products. Data sheets, in other languages, can also be found by visiting our website. Please visit our website www.morganthermalceramics.com and click on the Safety Data Sheets Quick Link on our home page.

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