



Minimox is a new vacuum formed refractory specifically engineered to meet the demand for a cost-effective, rigid, smokeless and odorless high temperature insulation. Previously, customers had to choose between a weak, burned-out starch-bonded board, or a more costly, wholly inorganic silica-bonded board.

Minimox 1300 Boards and Shapes are made from a blend of Thermal Ceramics high purity fibres and ultra-low organic binders, offering excellent physical characteristics which allow for clean machining and easy handling during installation. Thermal properties are also enhanced, exceeding our standard Kaowool® M Board, allowing for higher temperature applications.

Applications

- Kilns
- Space-heaters
- Water-heaters
- High temperature residential products

Physical Properties

	Minimox 1300
Color	cream
Density, kg/m ³ (pcf)	304 (19)
Melting Point, °C (°F)	1760 (3200)
Maximum Temperature, °C (°F)	1315 (2400)
Continuous Use Limit, °C (°F)	1150 (2100)
Modulus of Rupture, MPa (psi)	0.62-0.75 (90-110)
Compressive Strength, MPa (psi)	
@ 5% deformation	0.10-0.14 (15-20)
@ 10% deformation	0.14-0.17 (20-25)
Shore Hardness, ASTM D2240	45-60
Linear Shrinkage, %, 24 hours	
@ 800°C (1472°F)	0.2
@ 1000°C (1832°F)	1.8
@ 1100°C (2012°F)	2.3

Chemical Analysis, % Weight basis after firing

Alumina, Al ₂ O ₃	40
Silica, SiO ₂	53
Magnesium Oxide, MgO	1.5
Calcium Oxide, CaO	3
Other	<2.5
Loss On Ignition	3

Thermal Conductivity, W/mK (BTU•in/hrs•ft²•F)

300°C (572°F)	0.08 (0.62)
500°C (932°F)	0.14 (0.79)
800°C (1472°F)	0.20 (1.22)
1100°C (2012°F)	0.29 (1.76)

The values given herein are typical average values obtained in accordance with accepted test methods and are subject to normal manufacturing variations. They are supplied as a technical service and are subject to change without notice. Therefore, the data contained herein should not be used for specification purposes. Check with your Thermal Ceramics office to obtain current information.

Thermal Ceramics is a trademark of The Morgan Crucible Company plc. Kaowool and Minimox are tradenames of Thermal Ceramics.

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