



## TaoFibre<sup>®</sup> Ceramic Board

CERAMSOURCE offers a family of TaoFibre high temperature ceramic fiber boards, which are produced through wet forming process of ceramic fiber and binders. TaoFibre ceramic fiber boards are featured with high temperature stability, low thermal conductivity, consistent density, and excellent resistance against thermal shock and chemical attack. TaoFibre ceramic fiber boards also resist oxidation and reduction. If they are wet by water, steam, or oil, physical and thermal properties are fully restored upon drying. Ceramic Fiber boards are used for a variety of high temperature applications, including refractory linings, backup insulation, baffles and muffles, heat shields, combustion chambers, flue insulation, and fire protection. These boards are available in a variety of temperature ratings, densities, thicknesses, widths and lengths, and custom vacuum formed shapes.

**High- Purity Grade (HP):** continuous use up to 1149 °C (2100 °F)

**Zirconium Grade (HZ):** continuous use up to 1350 °C (2462 °F)

**Standard Density:** 16 -18 pcf (LD), 22-25 pcf (HD)

**Standard Thickness:** 1/4", 1/2", 1", 1.5", 2"

**Standard Widths:** 24", 42"

**Standard Lengths:** 36", 48"

### Product Range

Temp. Rating	Target Density	Board Grade	Product Description
2300 °F	16-25 #	HP	A high quality surface finish and precise dimensional tolerances make the board perfect in applications where aesthetic quality as well as performance is required.
2600 °F	20-22 #	HZ	Made from a special blend of alumina-silica fibers and Zirconia fiber, the boards give high stability at heat up to 2462 °F.

### Typical Applications

- Insulating backup to brick & castable
- Furnace hot face lining
- Use in industrial heat process equipment
- High-temperature gasket & seals
- Flue & chimney linings in furnace & kilns
- Molten metal trough covers
- Expansion joints
- Industrial heat shields & thermal barriers
- Industrial combustion chamber construction
- Infra red element supports
- Board over blanket hot face lining
- Full thickness refractory lining
- High temperature boiler wall insulation
- Pouring forms for castable

Turn back for more specific product information.

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# TaoFibre Ceramic Fiber Boards

## Typical Physical Properties

INDEX	HP GRADE		HZ GRADE
	LD	HD	
Grade	LD	HD	--
Temperature	2300 °F	2300 °F	2600 °F
Working Temp.	2100 °F	2100 °F	2462 °F
Melting Point	3200 °F	3200 °F	3300 °F
Color	Off White	Off White	Off White
Available Density (Kg/m <sup>3</sup> ) (lbs / ft <sup>3</sup> )	260 – 290	350 – 400	360 – 380
	16 – 18	22 – 25	20 - 22
LOI (% by Wt)	6-7%	6-7%	4-6 %
Shrinkage (%) 24 Hrs at temp.°F	-3 (2012 °F)	-3 (2012 °F)	-3(2462 °F)
Thermal Conductivity W/mk (Btu in./hr./ft <sup>2</sup> °F)			
	@400 °C (752 °F)	0.085 (.589)	0.095 (.659)
	@800 °C (800 °F)	0.132 (.915)	0.155 (1.07)
	@1000 °C (1832 °F)	0.180 (1.25)	0.201 (1.39)
Tensile Strength (Mpa)	0.5	0.5	0.5

## Typical Chemical Analysis

Al <sub>2</sub> O <sub>3</sub>	47-49	39-40
SiO <sub>2</sub>	50-52	42-45
ZrO <sub>2</sub>	--	15-17
Fe <sub>2</sub> O <sub>3</sub>	0.2	0.2
Na <sub>2</sub> O+K <sub>2</sub> O	0.2	0.2
Sizes Available	24"X36"; 24"X48"	24"X36"; 24"X48"
Thickness	1/4", 1/2", 1", 1.5", 2"	1", 1.5", 2"

Note: Any specific densities, thickness, and sizes could be accommodated with required quantities.

Refer to the Material Safety Data Sheet (MSDS) for recommended work handling and product safety information.

Data are average results of tests conducted under standard procedures and are subject to variation. Results should not be used for specification purposes. The information, recommendations, and opinions set forth are offered solely for consideration, inquiry, and verification, and are not, in part or total, to be construed as constituting a warranty or representation for which we assume legal responsibility. Nothing contained herein is to be interpreted as authorization to practice patented invention without a license.