NUTEC FIBRATEC
High Temperature Insulation Fibers

Ceramic Fiber Board

NUTEC Fibratec* ceramic fiber board is a lightweight refractory material processed with alumina silica fibers for applications at temperatures up to 1650 ℃ (3000 ℉).

NUTEC Fibratec* board is a vacuum formed product that resists higher gas velocities than ceramic fiber blanket. It is ideal for furnace, boiler duct and stack lining due to its low thermal conductivity and low heat storage allowing shorter
cycle times and quicker access for maintenance.

Features

> Low thermal conductivity, saves fuel.
> Very low heat storage, faster heat and cool-down reducing cycle times.
> Light weight-replaces heavy back -up insulations, less steel required.
> Excellent thermal shock resistance.
> Resistant to hot gas erosion.
> Resists most chemical attacks.
> Easy to cut, handle and install.
> Low sound transmission.
> Resists penetration by molten aluminum and other non ferrous metals.
> Contains no asbestos.

Typical Applications

> Refractory lining for industrial furnaces in walls, roofs, doors, stacks, etc.
> Combustion chamber liners, boilers and heaters.
> Back-up insulation for brick and monolithic refractories.
> Transfer of molten aluminum and other non ferrous metals.
> Expansion joint boards.
> Barrier against flame or heat.
> Hot face layer for high velocity or abrasive furnace atmosphere.

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Technical Specifications	LD-2300	LD-2600	LD-2800	LD-3000	MD-2300	MD-2600	MD-3000	HD-2300	HD-2600	HD-3000	INORGANIC	LD -CLOSE TOLERANCE	13mm MD - CLOSE TOLERANCE
Use Temperature													
Maximum Use ℃	1260	1425	1538	1650	1260	1425	1650	1260	1425	1650	1260	1260	1260
(℉)	(2300)	(2600)	(2800)	(3000)	(2300)	(2600)	3000	(2300)	(2600)	3000	(2300)	(2300)	(2300)
Continuous Use ℃	1149	1316	1425	1540	1149	1316	1540	1149	1316	1540	1149	1149	1149
(℉)	(2100)	(2400)	(2600)	(2800)	(2100)	(2400)	(2800)	(2100)	(2400)	(2800)	(2100)	(2100)	(2100)
Melting Point ℃	1732	1780	1850	1815	1732	1780	1815	1732	1780	1815	1732	1732	1732
(℉)	(3150)	(3236)	(3362)	(3300)	(3150)	(3236)	(3300)	(3150)	(3236)	(3300)	(3150)	(3150)	(3150)
Density													
lbs./ ft3	16 - 20	16 - 20	16 - 20	16 - 20	21 - 25	21 - 25	21 - 25	26 – 30	26 - 30	26 - 30	16 - 20	16-20	21 - 24
(Kg / m3)	(256-320)	(256-320)	(256-320)	(256-320)	(336-400)	(336-400)	(336 – 400)	(416-480)	(416-480)	(416-480)	(256-320)	(260 – 300)	(340-380)
Thermal Shrinkage (%) 24Hrs.@1200 ℃ (2200 ℉)													
	2 - 3	2 - 3	1 - 2	@1540 ℃ (2800 ℉) < 4	1 - 2	1 - 2	@1540 ℃ (2800 ℉) < 4	1 - 2	1 - 2	@1540 ℃ (2800 ℉) < 4	1 - 2	2-3	2-3
Thermal Conductivity W/m ℃K (BTU in/hr ft2 ℉)													
316 ℃ (600 ℉)	0.07 (0.5)	0.07 (0.5)	0.07 (0.5)	0.07 (0.5)	0.09 (0.6)	0.09 (0.6)	0.09(0.6)	0.13(0.9)	0.13(0.9)	0.13(0.9)	0.07(0.5)	0.07 (0.5)	0.09 (0.6)
538 ℃ (1000 ℉)	0.09 (0.6)	0.09 (0.6)	0.09 (0.6)	0.09 (0.6)	0.10 (0.7)	0.10 (0.7)	0.12(0.8)	0.15(1.0)	0.15(1.0)	0.15(1.0)	0.09(0.6)	0.09 (0.6)	0.10 (0.7)
760 ℃ (1400 ℉)	0.12 (0.8)	0.12 (0.8)	0.12 (0.8)	0.14 (0.9)	0.13 (0.9)	0.13 (0.9)	0.15(1.0)	0.17(1.2)	0.17(1.2)	0.17(1.2)	0.12(0.8)	0.12 (0.8)	0.13 (0.9)
1094 ℃ (2000 ℉)	0.17 (1.2)	0.17 (1.2)	0.17 (1.2)	0.20 (1.3)	0.17 (1.2)	0.17 (1.2)	0.21(1.4)	0.20(1.4)	0.20(1.4)	0.20(1.4)	0.18(1.2)	0.18 (1.2)	0.17 (1.2)
Chemical Analysis (%)													
Al2O3	39 - 41	48 - 50	63 - 65	63 -65	45 - 47	52- 54	71 - 73	43 - 45	52 - 54	71 - 73	39 - 41	47 – 49	47-49
SiO2	52 - 54	45 - 47	32 – 34	35 - 37	44 - 46	43 - 45	27 - 29	47 - 49	41 - 43	27 - 29	52 - 54	50-52	50-52
Others	2 - 3	1 - 2	1 - 2	--	2 - 3	3 - 4	--	2 - 3	5 - 7	--	<1	<2	<2
P.P.I	4 - 6	4 - 6	5 - 6	4 - 6	4 - 5	4 - 5	4 - 6	4 - 5	4 - 5	4 - 6	4 - 6	4-6	4-5
Fiber Diameter (mm)	2 - 4	2 - 4	2 - 4	2 - 3	2 - 4	2 - 4	2 - 3	2 - 4	2 - 4	2 - 3	2 - 3	2-4	2-4

Board Dimensions	Standard	European
Thickness:	1/2",1" , 1 1/2" , 2" , 2 1/2" , 3".	10, 12.5, 25, 38, and 50 mm.
Width:	12",24".	610 and 1000 mm.
Length:	36",48".	1000 and 1200 mm.

2600 Chinese boards contains zirconia.

NOTE: special densities and dimensions available upon request.All data represents typical results of standard tests conducted under controlled conditions. As such, the information is intended only as a general guide for specification and design estimates. This information should be used for specification purpose.