

High Strength Ceramic Fibre Boards

“HS 45 - HS 45 LB - SS 800”

Material Type: High strength boards based on refractory fibres.

Description

High strength ceramic fibre boards are having high compressive and flexural strength and good resistance to erosion from gas flow than normal ceramic fibre boards.

High strength boards are designed to meet the toughest knocks and pressure maintaining its strength over a long productive life. It has low shrinkage compared to other fibre products.

Classification Temperature

HS 45 : 1260 °C

HS 45 LB: 1260 °C

SS 800 : 1260 °C

The maximum continuous use temperature depends on the application. Refer to our company for advice.



Features

- They have low heat storage capability.
- They can be cut and have the desired shape easily as they are hard and resistant.
- Their permanent linear shrinkage rates are low.
- They show excellent thermal insulation property.
- They provide excellent abrasion resistance to the gas flow.
- They maintain their dimensional tolerances at high temperatures.
- They may be exposed to flame directly.
- Non-wetting to molten aluminium and other nonferrous metals.
- They are compatible with the high alumina bricks in the refractory applications.
- They are not affected by thermal shock at high temperatures and not damaged by abrupt heating and cooling.
- They have dimensional sensitivity and homogenous structure.

Applications

- Ceramic industry.
- Kiln car and insulation ducts.
- Back-up insulation of dolomite and calcination furnaces.
- Excellent non-wettability to molten aluminium and ideally suited for various molten metal contact applications such as launders, header box, troughs and hot top moulds, etc.
- Back-up insulation to feeder channels of glass tanks.
- Crucible, boiler and burner combustion chambers.
- Back-up insulation of rotary furnace.
- Passage channels where flame and high gas circulation may create problems.
- Back-up insulation in steel ladles like tundish and torpedo ladles.

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Main Properties (23 °C / 50% Humidity)	HS 45 Board	HS 45 LB Board	SS 800 Board
Colour	White / Tan		
Classification Temperature, °C	1260		
Density, kg/m ³	720	720	800
Chemical Composition, % Al ₂ O ₃ SiO ₂ CaO	49 - 53 33 - 37 9 - 12	43 - 49 37 - 43 9 - 12	>50 <35 >10
Permanent Linear Shrinkage, % (1200 °C, 24h)	1	1	1
Modulus of Rupture, KPa Thickness <25mm	3000	3000	5000
Modulus of Rupture, KPa Thickness >25 mm	2000	-	-
Loss on Ignition, %	<10	<10	<10
Thermal Conductivity, W/m.K 600 °C	0.15	0.15	0.15

Packaging

The products are offered in cartons and/or on pallets coated with stretch film.

*Standard Dimensions (mm)	HS 45 Board	HS 45 LB Board	SS 800 Board
1000 x 600 x 5	x	x	x
1000 x 600 x 10	x	x	x
1000 x 600 x 12	x	x	x
1000 x 600 x 15	x	x	x
1000 x 600 x 20	x	x	x
1000 x 600 x 25	x	x	x
1000 x 600 x 30	x	-	-
1000 x 600 x 40	x	-	-
1000 x 600 x 50	x	-	-

*They are also offered in the dimension of 1000 x 500 mm optionally.

The values given herein are typical average values obtained in accordance with standard test methods and subject to normal manufacturing variations. They are supplied as technical data and may change without notice. Contact our company to obtain detailed information.