

# High performance insulation for high temperatures.

- Thermal & chemical stability
- Thermal shock resistant
- Lightweight
- Low heat storage capacity
- Asbestos free



HIL is a part of the CK Birla Group, a growing US\$ 1.6 billion conglomerate that has a history of enduring relationships with renowned global companies. With over 20,000 employees, 24 manufacturing facilities and numerous patents and awards, the Group's businesses are present across five continents.

Our Group operates in three industry clusters: technology & automotive, home & building and healthcare & education. Our companies are strengthened by common ownership and shared guiding principles that include focus on long-term value, trust-based relationships and philanthropy. Each business is transforming to build on the collective strength and synergies of the Group's size and span.

HIL Limited (formerly Hyderabad Industries Limited) is one of India's most respected names in the building material industry. HIL has three sub-brands, namely,

**Charminar** – the established market leader in roofing solutions;

**Aerocon** – the pioneer in eco-friendly building materials, producing panels for fast-track construction, AAC blocks, plywood substitutes and international-quality advanced polymer products; and

**HYSIL** – thermal insulation solutions for energy-intensive industries.

Our R&D experts are responsible for the technology and processes that continuously redefine industry standards – enabling the production of economically-viable and environment friendly building solutions.

After consolidating its leadership position in the green industrial insulation category with Calcium Silicate, HYSIL is now foraying into Ceramic Fibre, which is designed for use on systems operating above 1100°C.



## HYSIL CERAMIC FIBRE BLANKET

HYSIL Blankets are strong, lightweight, flexible insulating products made from ceramic spun fibre comprising of high purity alumina silica and zirconia. It is mechanically needed for adding strength and surface integrity. The blankets display lower thermal conductivity, super thermal shock resistance, low heat storage and excellent sound absorption properties. It is designed for use on systems operating from 1260°C to 1425°C.

### Key Characteristics

- Double needled through SPUN Technology
- Low shot content
- Excellent tensile strength
- Without organic binder and asbestos free
- Excellent compression recovery

\*Sizes Available in mm (LxW): 7200x610, 3600x610

Other sizes available on request

\*Available Thickness (mm): 8,13,25,38,50 (\*depends on density)



## HYSIL VACUUM FORMED BOARDS

HYSIL boards are high performance insulation products manufactured from ceramic fibre (with alumina fibre) and binders. HYSIL's unique shot removing and vacuum forming process provides excellent stability for high temperatures, lower thermal conductivity and high compressive strength. It is designed for use on systems operating in 1050°C, 1260°C and 1425°C

### Key Characteristics

- Equal volumetric weight and thickness
- Low shrinkage
- Able to withstand gas flow velocity upto 1800 m/min

\*Sizes Available in mm (LxW): 1000x500; 1000x600

(\*Available in different thickness of 10-100 mm)



## HYSIL CERAMIC FIBRE MODULES

HYSIL modules are made from ceramic fibre blanket stacked with cut edges exposed and anchor systems to enable quick, easy and efficient installation in most furnace linings. These prefabricated modules are designed to meet the thermal insulation requirements of high temperature furnaces operating between 1260°C and 1425°C

### Key Characteristics

- Low heat storage
- Excellent corrosion resistance
- Faster temperature cycling

Sizes Available in mm (LxW):

150x305x305; 175x305x305; 200x305x305; 225x305x305;  
250x305x305; 275x305x305; 305x305x305



## HYSIL CERAMIC FIBRE ROPES

HYSIL Round braided rope is dense, resilient, high performance ceramic fibre material fabricated from ceramic fibre yarn braided around a core of ceramic fibre rope to form a packing in round section. The excellent tensile strength of HYSIL ropes makes it suitable for a broad variety of applications such as high temperature gasketing, packing and sealing application.

The ropes are made of world-class ceramic fibre and it is braided by Glass Fibre yarn and/or SS wire. Available in diameter of 8 mm to 50 mm



## HYSIL BULK

This fibrous product is made using high purity silica, alumina and zirconia through the electric arc technology. The products display better heat resistance, chemical stability and anti-spalling characteristics. It is applicable for systems operating between 1260°C and 1425°C.

Standard Packaging: 15 kg/bag

### Key Characteristics

- Resistant to chemical attack at various temperatures
- Thermal shock resistance
- Excellent sound absorber



## TECHNICAL PROPERTIES

Technical Index	Hysil Blanket		Hysil Module		Hysil Bulk	
Classification Temperature (°C)	1260	1425	1260	1425	1260	1425
Colour	White		White		White	
Fibre Diameter (µm)	2.5 ~ 4.0		2.5 ~ 4.0		2.5 ~ 4.0	
Linear Shrinkage (at 24 hrs soaking)	3.5% at 1200°C	3.5% at 1400°C	-	-	-	-
Thermal Conductivity (W/mk) (Density 128 kg/m <sup>3</sup> & Mean Temperature 500°C)	0.15					
Tensile Strength (KPa) (25 mm thick, 128 kg/m <sup>2</sup> )	55 Min					
Non Fibrous content by weight	30% Max.		30% Max.		30% Max.	
Theoretical Density (kg/m <sup>3</sup> )	64/96/128/160		128/160/192			

HYSIL BOARDS						
Temperature°C	Density (Kg/m <sup>2</sup> )	Compressive Strength (kg/cm <sup>2</sup> )		Bursting Strength (kg/cm <sup>2</sup> )	Linear Shrinkage % 24 hrs.	
		10% deform	25% deform			
1050°C	300-370	2.8 Min.	4.5 Min.	10 Min.	2.5 Max.	at 1000°C
1260°C	320-380	2.8 Min.	4.5 Min.	15 Min.	3.5 Max.	at 1200°C
1425°C	320-380	2.8 Min.	4.5 Min.	15 Min.	3.5 Max.	at 1400°C

All data represents typical results of standard tests on 25mm thick Ceramic Fibre Board conducted under controlled conditions. As such, the information is intended only as a general guide for specification and design estimates.

### The HYSIL Edge



High Efficiency



Energy Saving



Recyclable



Long Lasting



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