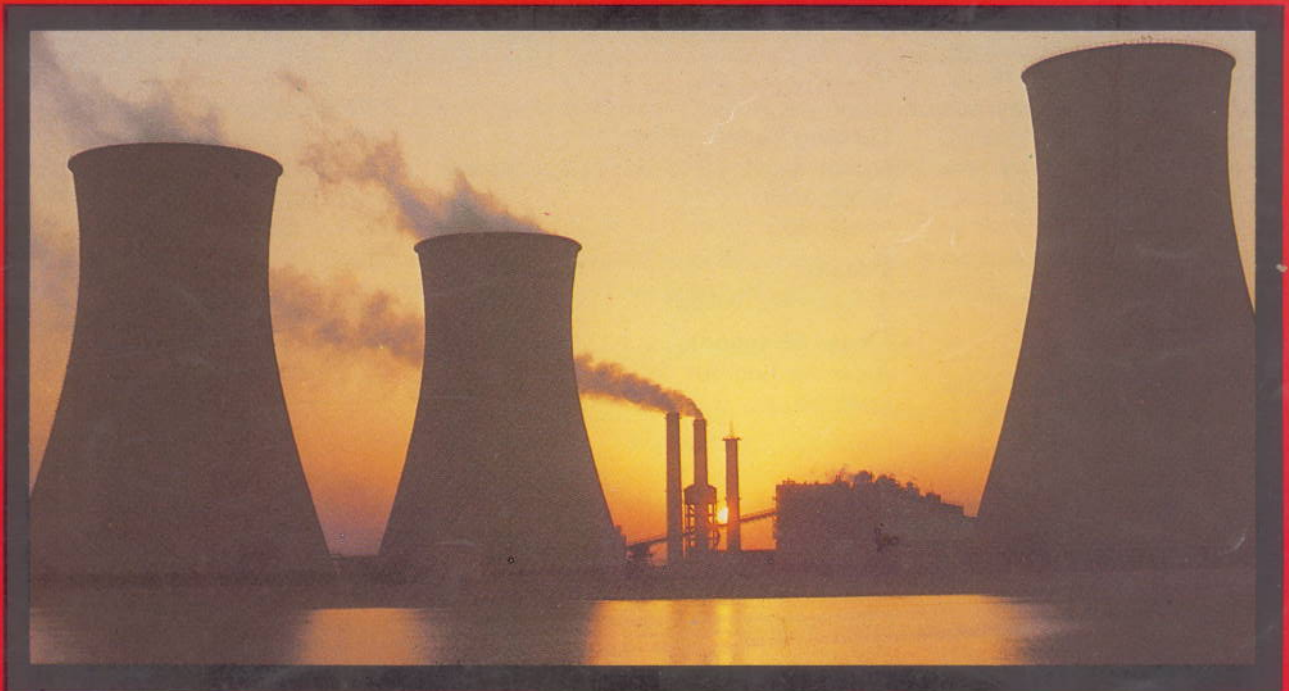
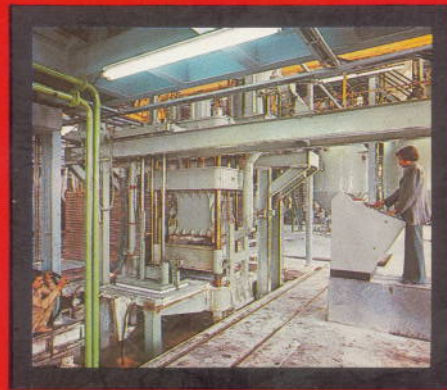


HYSIL

Calcium Silicate Blocks and Pipe-Coverings

for Industrial Insulation





Insulation Blocks and Pipe Coverings

HYDERABAD INDUSTRIES LIMITED, run by a team of dedicated professionals has grown from a pioneer to an organisation occupying an eminent position in the industrial scene of India. The Company has the backing of the vast and varied experience and expertise, both, organisational and technical, of one of the largest business houses of India.

HYSIL, a new generation calcium silicate based thermal insulation, was started in 1979. Over a decade of intensive research, field experience and continuously improving manufacturing skills have given HIL an envied position in the Industrial Insulation field. Today, HIL is equipped to serve the requirement of Insulation world backed by a R&D lab, fully equipped with pilot plant and testing equipments.

HYSIL is manufactured under technical knowhow obtained from Cape Insulation of U.K. It provides, for the first time in India, Thermal Insulation Blocks and Pipe Coverings of quality equivalent to the best in the world and conforming to international standards.

General Description:

HYSIL Insulation Blocks and Pipe Coverings are made from Hydrated Calcium Silicate, reinforced with non-asbestos fibres. It is a rigid material with high compressive strength and low shrinkage at high temperature. Also the material has very low thermal conductivity. The large Blocks and Pipe Coverings can be easily cut and shaped at site with carpenter's tools.

Advantages:

- Reduced fuel cost due to low thermal conductivity and low thermal capacity
- Consistent physio-thermal performance throughout its life
- Reduced heat loss due to fewer joints
- Longer life of 3 to 4 times the fibrous material due to high strength and resistance to vibrations
- Reduced installation cost due to simple fixing
- Zero maintenance for entire life of over 25 years
- Economical as compared to conventional insulation
- Can absorb thermal shocks

- Physiothermal properties remain unaffected after repeated water wetting & subsequent drying

Product Data:

Grades Available:

HYSIL-1000
HYSIL-800

Blocks:

Standard Size : 900 x 600 mm.
900 x 300 mm.
900 x 150 mm.
600 x 150 mm.

Thickness : 25, 40, 50, 65 & 75mm.

Special Sizes and Thicknesses available on request.

Preformed, Rigid Pipe Coverings:

To suit pipe size NB 12.7 mm. (1/2") to cylindrical vessels of size 914.4 mm. (36").

Pipe coverings in two half Sections, Radius Bevelled Lags (Curved Segments) and Bevelled Lags (Sidearch type).

Standard length : 900/600/450 mm.

Thickness : 25, 40, 50, 65 & 75 mm

Other thicknesses available on request.

Technical Data:

Limiting Temperature:

Grade	Temp.
HYSIL-1000	980°C
HYSIL-800	800°C

Density:

250 kg/m³ (Nominal)

Linear Shrinkage:

After heating for 24 Hrs. at limiting temperature.

Shrinkage: Less than 2%

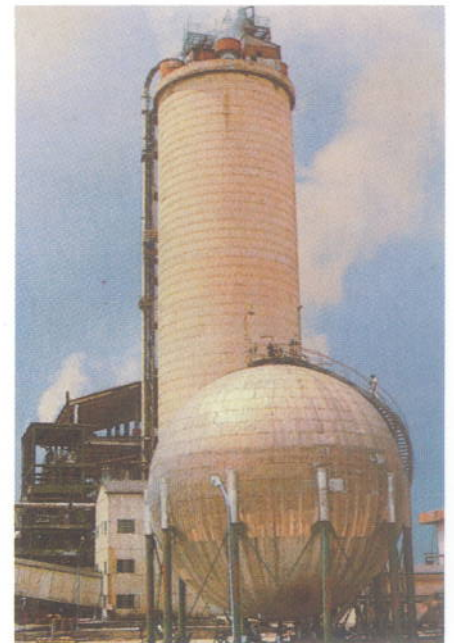
Temp.	Typical Values
950°C	1.7%
800°C	1.2%

Compressive Strength:

Compressive strength 700 kN/m² minimum.

Reduction in thickness – less than 5% when subjected to compressive loads of :

415 kN/m ²	– Unheated
345 kN/m ²	– After 24 hrs. heating at limiting temperature.
170 kN/m ²	– After 18 hrs. immersion in water.



Flexural Strength:

250 kN/m² minimum

Tested as per IS-5688

Fire Safety:

HYSIL is non combustible when tested in accordance with BS: 476 Part 4. Also surface spread of flame test. (Large scale) as per BS-476 Part 7 Classified as Class-1.

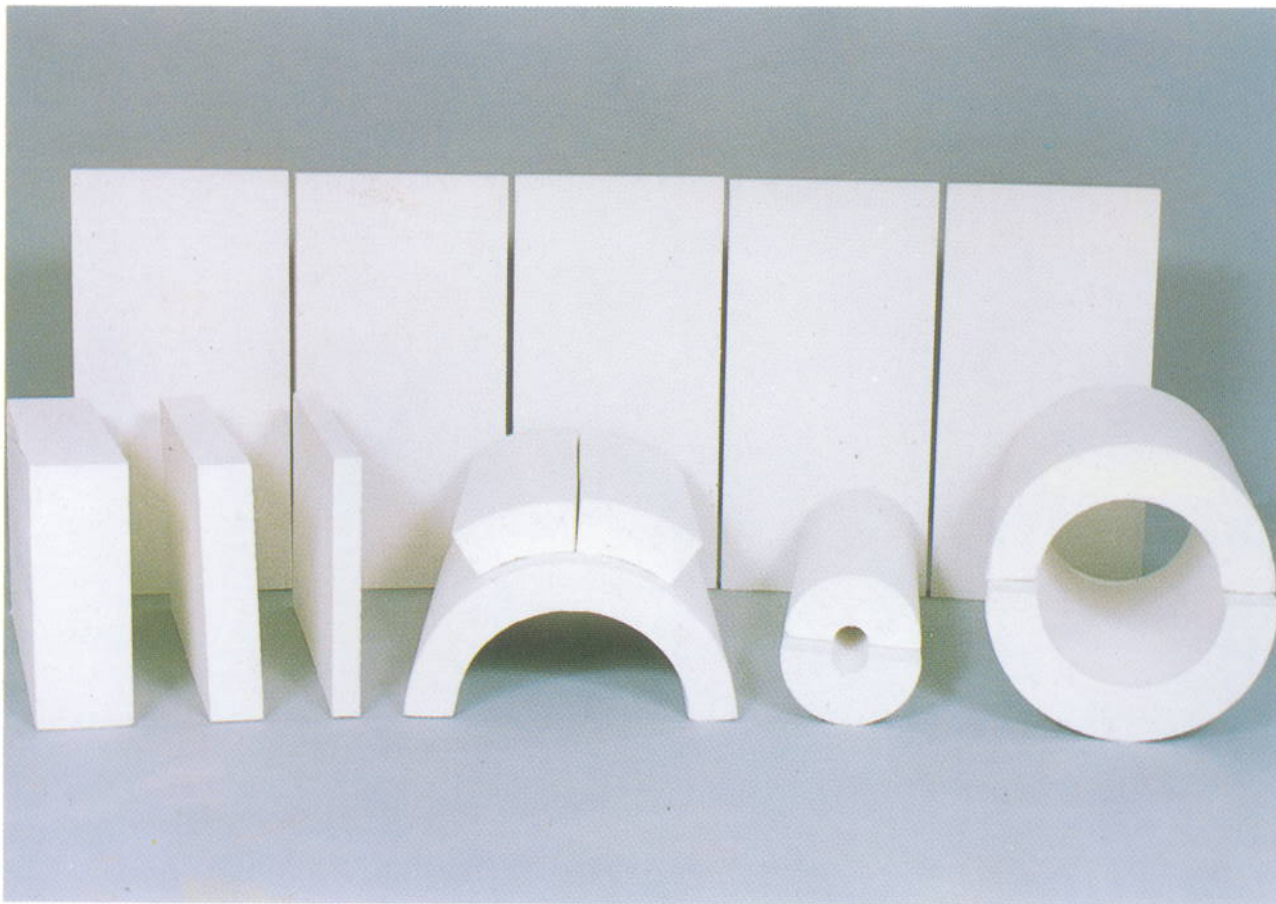
Thermal Conductivity:

Mean Temp°C	200	300	400	500
W/m.K	0.067	0.078	0.092	0.112
kcal/m.h.°C	0.057	0.067	0.079	0.096

Tested in accordance with BS 874 Cold face 40°C. Also as per I.S. 9490

HYSIL Grades 1000/800 exceed the requirements of I.S. 9428, IS 8154 as well as BS 3958 Part 2 & ASTM C-533.

The values quoted are from laboratory tests on typical samples and represent averages. They should not be used as maxima or minima in specifications.



Major Applications:

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- Power Plants** : Boilers, Steam Pipelines, Exhaust Ducts of Gas Based Plants, Turbines, Fuel Oil Lines & Chimney.
 - Fertilizer, Refinery & Petrochemical Industry** : Reformer, Gas Cracker, Heater, Ducts, Boiler, Steam Pipelines & Process Pipelines.
 - Iron & Steel Industry** : Blast Furnace Shaft, Stoves & Bustle Pipe, Soaking Pits, Reheat and Annealing Furnaces, Waste Heat Boiler, Roof Top & Regenerator Shields of Coke Oven Batteries & Lime Kiln, Hot-Air & Flue Gas Ducts.
 - Sponge Iron** : Gas Based Reformer, Desulphuriser Vessel, Hot-Air & Flue Gas Ducts & Waste Heat Recovery System.
 - Cement Industry** : Preheater Cyclones, Precalculator, Kiln Riser Duct, Firing hood, Grate-Cooler, Tertiary Air-Duct, Flue-Gas Ducts & E.S.P.
 - Aluminium Industry** : Reduction Cells (Pots), Soaking Pits, Homogenizing and Holding Furnaces/Alumina Calciner.
 - Furnaces** : Heat Treatment & Reheating.
 - Ceramic & Glassware** : Tunnel Kiln, Glass Melting Furnaces, Regenerator & Annealing Lehrs.
 - Sugar** : Boiler, Steam Pipelines & Process Pipelines.
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Technical Services:

For your specific application, please refer to our technical sales department for expert advice and recommendations.

Our team of well-qualified and experienced technical personnel can assist you in the use of 'HYSIL' Blocks and Pipe Coverings for your design and application requirements.

They can conduct energy audits of your plants and help identify the energy saving areas.

HYSIL Blocks and Pipe Coverings are manufactured at our DHARUHERA unit in Haryana.

For further information, please contact :

Authorised Stockist :
INDIAN AGENCIES CORPORATION
Sir Sobha Singh Building, 5253-54, G.B. Road Delhi-6
Ph. : 23213234, 23212515, 23216062, Fax 011-23219697
Mobile : 9811019797, 9810067067

Deals in : Fire Bricks of All Grades, Fire Cement,
Castable Refractories, Insulation Bricks, Mortar,
Acid-Resistant Bricks-Tiles-A R Cement, Resins,
Ceramic Fibre Products, Insulation-Hysil Blocks,
Shrinkkomp Grout, etc.