



SUPERCERA BULK FIBRE

SUPERCERA is a high temperature insulating refractory fibre processed from high purity alumina and silica constituent specially selected for high strength refractoriness and stability even under severe conditions.

SUPERCERA spun texture gives it the added extra of exceptionally long fibres and superior mechanical properties essential to meet rugged service conditions.

SUPERCERA bulk fibres provide superior acoustical benefit in addition to high thermal performance—a relevant benefit in process furnaces. Supercera can be handled and worked into expansion joints, wall penetrations and other areas with nominal skills. In specific cases, our application engineers would be happy to assist with Heat Loss, Surface Temperature and Heat Storage Computations.



APPLICATIONS

As a resilient fill or packing material in high temperature areas like:

- Burner Openings
- Kiln Insulations
- Furnace patch sealing
- Emergency repairs in refractory
- Glass tanks and glass processing
- Furnace repairs
- Expansion Joints
- Fibre Boxes

Chemical Composition	RT	RTZ	HTZ
A ₁ O ₃ (%)	46-48	41-43	33-36
SiO ₂ (%)	52-54	50-54	44-48
Zr ₂ O ₂ (%)	-	4-6	16-19
Leachable Chloride	<10ppm	<10ppm	<10ppm

Physical Properties	RT	RTZ	HTZ	
Melting Temperature (°C)	1760	1700	>1650	
Specific Heat (KJ/Kgk)	1.07	1.07	1.07	
Fibre Diameter (Mean)	2.8u	2.8u	2.8u	
Linear shrinkage (%)	1000°C	1.5	1.5	-
	1100°C	2.2	2.2	-
after 24 hours	1200°C	3.0	3.0	2.7
	1300°C	-	-	3.5
Soaking	1400°C	-	-	4.0
Max. service temp. (°C)	1260	1260	1425	

SUPERCERA BLANKETS

SUPERCERA Blanket is a refractory fibre needled mat made without binder from Supercera fibres—the only super-spun double needled fibre in the country today. Supercera RTZ and HTZ Blankets are zirconia stabilised and are suitable for use upto 1260° C and 1425° C respectively. Both blankets have excellent resistance to most chemicals. If wet by oil or water, their thermal and physical properties are fully restored upon drying. It is available in density of 64, 96 & 128 kg/m³. Size 7620 x 610mm, thickness : 6, 12, 20, 25, 50mm. They conform to IS : 15402 & ASTM C 892.



APPLICATIONS

- Annealing furnaces and glass kilns
- Reformers & Ducts in petrochemical Fertiliser and Boiler Linings Industry
- High temperature pipe insulation
- HRSG and stack linings
- Glass Furnace crown insulation
- Trundish Cover, Transfer cars in Steel Plants
- Soaking pit seals and expansion joint
- Kilns, kiln cars for Ceramic Industry
- Annealing cover bottom seals
- Reusable insulation blankets for field stress relieving of welds
- Insulation blankets for steam and gas turbines and fire protection
- Insulation wrap on investment casting moulds
- Temporary repair of refractory furnace linings and roofs
- High temperature filter media / gaskets
- Furnace door seals, linings and gaskets
- High Temperature Sound Absorption and Nuclear Insulation applications

SUPERCERA BOARDS & BLOCKS

SUPERCERA Boards and Blocks are made from Superspun Supercera fibres by multi component organic / inorganic bonding process.

SUPERCERA Blocks and Shapes are obtained by vacuum suction of a mixture of Supercera ceramic fibres with organic and mineral binders. These vacuum formed products can be moulded and cured into a wide variety of shapes to have a smooth inside surface and a rougher outside, as demanded by the application.

SUPERCERA Fibre Boards, Blocks and Shapes are self supporting with excellent stability at high temperatures, having high resistance to thermal shock and chemical attack. Supercera Fibre Boards, Blocks and Shapes can be rendered machinable - to be sawed, drilled or machined, where required. Density : 260-320, 720 kg/m³, Size : 915 x 600mm & 1000 x 500mm, thickness : 10-50mm

APPLICATIONS (Vacuum Formed Shapes)

- Combustion chambers
- Domestic boiler doors
- Peep holes, Pipe Seals
- Special furnace Lining parts
- Radiant element supports in vitroceraic hotplates (either electric resistance or halogen)



SUPERCERA 'B' BLOCKS

APPLICATIONS

(Boards and Blocks)

- **Lining of :** Furnaces including electric furnaces; Flue and chimney of furnaces and kilns; Hot gas ducts; Combustion chamber in central heating boilers; Glass tank side, end walls, and port neck; Low and high temperature driers
- Trough and distribution linings for conveying molten metal
- Refractory backup for bricks and castables
- Pouring forms for non ferrous castings
- High temperature baffles and muffles
- Heat shield for personnel protection
- Rigid high temperature gasket and seals
- Expansion joints
- Boiler Tubes Insulation

SUPERCERA ANCHORED MODULES AND VENEERING MODULES

SUPERCERA Anchored Modules are made from folds of Supercera ceramic fibre - the only superspun double-needled fibre in the country. The module is held in compression by removable strapping. Each module has an integral anchoring system - the result of continuous R & D and advanced designing. Fixing of the module to metal shell is achieved by welding specially designed studs, supplied integral with the module, resulting in efficient, fast, and error-free installation. Supercera Modules are ideal for full thickness lining for new furnaces as well as conversion into fibre lining in case of old furnaces. They enhance the furnace life and performance.

Density : 128, 160 kg/m³, thickness : 100-300mm for anchored and 50-75mm for veneering.

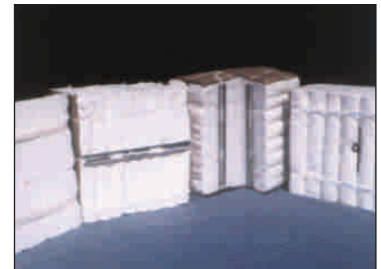
SUPERCERA Veneering Modules improve the thermal efficiency of old brick linings with minimum downtime for repairs.

APPLICATIONS

- Reheating Furnaces
- Bell Annealing Furnaces
- Soaking Pit Seals and covers
- Ladle Preheaters
- Chemical Process Heaters
- Incinerators
- Reformers, etc.



● SUPERCERA PADS



SPECIALITY PRODUCTS

SUPERCERA Cloth / Tape is a high temp. speciality fabric used for a variety of industrial applications. It contains 15-20% organic carrier fibre to facilitate the carding process, which may burn off at a lower temperature. This however does not change the mechanical features including strength. It exhibits excellent chemical stability, resisting attack from most corrosive agents. Available in standard thickness of 3 mm. Other thicknesses available on request.

Cloth Size : 3mm x 300 mm/ 1000mm x 10m

Tape Size : 3mm x 50mm x 25m

● SUPERCERA CERAMIC FIBRE CLOTH / TAPE



SUPERCERA Pad is Supercera Blanket covered with Supercera cloth or glass cloth for insulation of turbines, valves & flanges. For external application, pads are coated with teflon.

SUPERCERA Twisted Rope is a three-ply rope manufactured from Supercera long fibres. It contains 15 - 20% organic carrier fibre to facilitate the carding process which burn off at a lower temperature. It is a dense, resilient high temperature refractory possessing excellent thermal properties, chemical stability and high mechanical strength. Size 6 to 40mm dia, 10/25m coils & 300 kg/m³ density (min.)

SUPERCERA BRAIDS Supercera Braided Rope is available with SS304/SS 310 Braiding.

SUPERCERA Ceramic Paper is manufactured from high temperature Supercera Ceramic Fibre product containing 20-25% organic material to give it an extra ordinary pliability. If wet by water, steam or oil, its thermal and physical properties are restored up on drying.

Size : 1000mm x 500mm

Thickness : 1 to 6mm

Density : 240 kg/m³



● SUPERCERA PAPER



● SUPERCERA ROPE

Lloyd Insulations (India) Limited

(An ISO 9001, ISO 14001 & OHSAS 18001 Certified Organisation)

Post Box No. 4321, Punj Star Premises, Kalkaji Industrial Area, NEW DELHI - 110 019

Phones : 011-30882900 - 30882906 Fax : 011-30882894, 30882895 E-mail : lloyd@del2.vsnl.net.in / LII_DELHI@eth.net

386, Veer Savarkar Marg, Prabhadevi, MUMBAI - 400 025

Phones : 022-30480000, 30480110 Fax : 022-24376858 / 24373557 E-mail : lloyd@giasbm01.vsnl.net.in

6, Middleton Street, KOLKATA - 700 071

Phones : 033 - 30585201, 30585202, 30585211 Fax : 22872629, 22465687 E-mail : lloyd@cal2.vsnl.net.in

5, Haddows Lane, Nungambakkam, CHENNAI-600 006

Phones : 044 - 28303753, 32908368, 32283753 Fax : 044-28279728 E-mail : lloyd@dataone.in / liichennai@eth.net



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www.lloydindia.com
www.lloydinsulation.com