KOVATEX
CERAMIC FIBERTECH LLP
Engineered for Extreme - Insulation That Endures

KOVATEX
PRODUCT BROCHURE

The Foundation of Thermal Excellence.

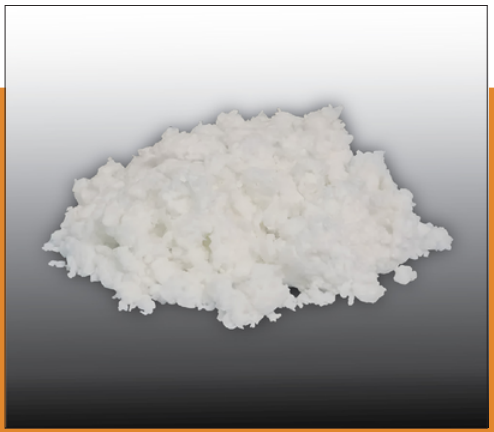
+91 98795 31886
+91 79900 63926

sales@kovatex.com
deeppatel@kovatex.com

Halvad morbi chokdi, Maliya highway,
Behind Astha Spintex, Halvad -363330

TABLE OF CONTENT

KOVATEX
CERAMIC FIBERTECH LLP
Engineered for Extreme - Insulation That Endures



CERAMIC FIBER BULK

Ceramic Fiber Bulk is a lightweight, high-purity insulation material composed of long, interwoven ceramic fibers designed for exceptional thermal stability and heat resistance. Manufactured through advanced fiberization techniques, it offers low thermal conductivity, excellent resilience, and superior insulation performance even in extreme temperatures up to 1600°C. Its versatility makes it ideal for custom insulation applications, ensuring energy efficiency and reduced heat loss across various industries.

Available in different grades, densities, and fiber lengths, Ceramic Fiber Bulk is highly flexible and can be used for vacuum forming, refractory filling, expansion joints, and direct insulation. With low heat storage and excellent resistance to thermal shock, it provides a reliable and cost-effective solution for high-temperature insulation needs.

Characteristics:

- High-temperature resistance (up to 1600°C)
- Low thermal conductivity for excellent insulation
- Lightweight & flexible, easy to handle and install
- Excellent thermal shock resistance
- Non-brittle, low heat storage for energy efficiency
- Good chemical resistance, Corrosion resistant.

Applications:

- Furnace and kiln insulation
- Vacuum-formed shapes
- Expansion joints and gaskets
- Refractory castable reinforcement
- Filtration media

Bulk		
Type Maximum	(1)	(2)
Temperature °C. Melting	1260	1425
Temperature °C. Sp.	≤1750	≤1650
Gravity Percentage Fiber	2.65	2.65
Index Chemical Analysis	Min 48	Min 48
(%) AL_2O_3		
SiO_3	41-48	2 9 -37
ZrO_2	49-58	42-57
Others	0-7	13-18
	Traces	Traces

Note: All data reflects typical results from standard tests performed under controlled conditions. This information is provided solely as a general reference for specifications and design estimates.

KOVATEX
CERAMIC FIBERTECH LLP
Engineered for Extreme - Insulation That Endures

CERAMIC FIBER BLANKET

Kovatex Ceramic Fiber Blanket is a lightweight, flexible, and highly efficient high-temperature insulation material made from high-purity alumina-silica fibers. Designed for superior thermal resistance, it can withstand extreme temperatures up to 1600°C, making it an ideal choice for industrial applications requiring low thermal conductivity, excellent heat retention, and thermal shock resistance. Manufactured using advanced spinning and needling techniques, our ceramic fiber blankets provide enhanced durability, superior tensile strength, and easy handling without the use of binders or adhesives.

Engineered for energy efficiency and cost-effectiveness, Kovatex Ceramic Fiber Blanket is available in various thicknesses and densities to suit diverse insulation needs. Its lightweight, flexible, and fire-resistant properties make it perfect for use in high-temperature furnaces, kilns, boilers, and other industrial applications requiring superior heat protection and minimal heat loss.

Characteristics:

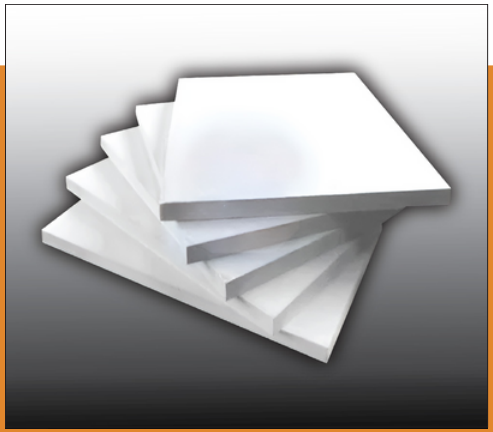
- High thermal insulation & low thermal
- conductivity High temperature resistance (up to
- 1600°C) Lightweight, flexible, and easy to install
- Resistant to thermal shock and chemical
- corrosion Asbestos-free, non-toxic, &
- environmentally friendly No binder burnout, extreme strength.

Applications:

- Industrial furnaces and kilns
- Petrochemical industry
- Boilers and power plants
- Metal processing
- Fire protection
- Aerospace and automotive

Physical Properties						
Grade	1260°C Regular Temp			1425°C High Temp		
Color	White			White		
Density(Kg/m)	64	96	128	64	96	128
Mechanical Properties						
Tensile Strength (Kg/cm)	>0.15	>0. 25	>0.40	>0.15	>0. 25	>0.40
Mean Fibre Dia (micron)	2.0 - 4.0	2.0 - 4.0	2.0 - 4.0	2.0 - 4.0	2.0 - 4.0	2.0 - 4.0
Shot content (%)	<20	<20	<20	<20	<20	<20
Thermal Properties						
Linear Shrinkage (%) for 24hrs	<3.5	<3.5	<3.5	<4.0	<4.0	<4.0
	at 1200°C			at 1400°C		
Thermal Conductivity (W/m°K) at 500°C Mean Temp.	0.173	0.160	0.150	0.173	0.160	0.150
Chemical Properties						
Al_2O_3%	41-48%			29-37%		
SiO_2%	49-58%			42-57%		
ZrO_2%	0-7%			13-18%		

Note: All data reflects typical results from standard tests performed under controlled conditions. This information is provided solely as a general reference for specifications and design estimates.



CERAMIC FIBER BOARD

Kovatex Ceramic Fiber Board is a rigid, high-temperature insulation solution made from high-purity ceramic fibers, carefully bonded with low organic binders to ensure exceptional strength, durability, and thermal stability. Designed for continuous use in extreme heat environments, our boards offer low thermal conductivity, excellent thermal shock resistance, and high compressive strength. They maintain their structural integrity even in direct flame exposure, making them an ideal choice for demanding industrial applications.

Manufactured with precision engineering, our ceramic fiber boards provide superior insulation performance, helping industries reduce energy consumption, improve furnace efficiency, and enhance overall thermal management. Available in various densities and thicknesses, they are easy to cut, shape, and install, ensuring versatility across multiple industries requiring lightweight yet robust refractory solutions.

Characteristics:

- High-temperature resistance (up to 1600°C)
- Low thermal conductivity for efficient insulation
- Excellent thermal shock and chemical resistance
- Lightweight yet rigid and durable structure
- Minimal shrinkage at high temperatures
- Easy to cut, shape, and install

Applications:

- Furnace and kiln linings
- Back-up insulation
- Boiler and heat exchanger insulation
- High-temperature gaskets and seals
- Expansion joints and fire protection
- Metal, glass, and petrochemical industries

Physical Properties		
Grade	1260°C	1425°C
Color	White	White
Density(Kg/m)	260-720	260-720
Mechanical Properties		
Compressive strength (Kg/cm²) at 10% deformation for 25 mm thick	>3	>3
Thermal Properties		
Linear Shrinkage (%) 1400°C for 24hrs	-	<4.5
Linear Shrinkage (%) 1200°C for 24hrs	<3.5	-
Thermal Conductivity (W/m°K) at 500°C Mean Temp	0.15	0.15
Chemical Properties		
SiO_2%	49-58%	42-57%
Al_2O_3%	41-48%	29-37%
ZrO_2%	0-7%	13-18%
LOI%	<8%	<8%

Note: All data reflects typical results from standard tests performed under controlled conditions. This information is provided solely as a general reference for specifications and design estimates.

CERAMIC FIBER PAPER

Kovatex Ceramic Fiber Paper is a lightweight, flexible, and highly efficient thermal insulation material made from high-purity ceramic fibers and minimal bonding agents. It offers low thermal conductivity, excellent heat resistance, and superior thermal stability, making it ideal for high-temperature sealing, gasketing, and insulation applications. The advanced manufacturing process ensures uniform thickness, smooth surface, and easy handling, providing optimal performance in demanding industrial environments.

Designed for extreme heat applications, our ceramic fiber paper maintains high flexibility and mechanical strength even at elevated temperatures. It is chemically stable, resistant to thermal shock, and does not emit smoke or odors when exposed to heat. With its lightweight yet durable composition, it is a preferred choice for industries requiring precision insulation and high-temperature resistance.

Characteristics:

- High-temp. resistance (up to 1260°C - 1600°C)
- Low thermal conductivity for excellent insulation
- Lightweight, flexible, and easy to cut or shape
- Good thermal shock and chemical resistance
- Low organic content, minimal smoke/odor
- Non-combustible and asbestos-free

Applications:

- Furnace/kiln gaskets & seals
- Refractory lining insulation
- Tempering backing material
- Aerospace/auto heat shields
- High-temp electrical insulation
- Molten metal filtration/casting

Main Properties		
Grade	1260°C	1425°C
Chemical Properties		
SiO_2%	49-58%	42-57%
Al_2O_3%	41-48%	29-37%
ZrO_2%	0-7%	13-18%
Availabitity and Packaging	1000 mm × 500 mm	1000 mm × 500 mm
Physical Properties		
Colour	White	White
Density (Kg/cm^3)	>190	>190
Tensile Strength (Kg/cm^2)	0.8	0.8
Linear Shrinkage (24hrs)	4% Max at 1200°C	5% Max at 1400°C
Loss on Ignition	7-12%	7-12%
Thermal Conductivity at Mean Temp. (W/m.K)		
500°C	0.150	0.150

Note: All data reflects typical results from standard tests performed under controlled conditions. This information is provided solely as a general reference for specifications and design estimates.

CERAMIC FIBER ROPE

Kovatex Ceramic Fiber Rope is a high-temperature insulation material made from high-purity alumina-silica ceramic fiber reinforced with fiberglass or stainless steel wire for added strength and durability. Designed for extreme heat environments, this rope provides excellent thermal resistance, low thermal conductivity, and high flexibility, making it ideal for sealing, gasketing, and packing applications. With its lightweight yet robust superior performance in high-temperature furnaces, kilns, and industrial equipment while maintaining resistance to thermal shock and chemical corrosion.

Manufactured using advanced braiding or twisting techniques, our ceramic fiber ropes offer enhanced mechanical strength and durability while remaining asbestos-free and environmentally friendly. Whether used in industrial sealing, expansion joints, or furnace door insulation, Kovatex Ceramic Fiber Rope provides long-lasting, reliable thermal protection in demanding applications.

Characteristics:

- High temp resistance (1260°C/1400°C).
- Low thermal conductivity (insulating).
- Flexible, durable, easy handling.
- Thermal shock, chemical, corrosion resistant.
- Asbestos-free, eco-friendly.

Applications:

- High-temp equipment seals/gaskets.
- Furnace/boiler expansion joint packing.
- Pipe/exhaust/oven insulation.
- High-temp cable/component wrapping.
- Metallurgy/petrochemical/powerplant fireproofing.

Technical Index		
Product Name	Ceramic Fiber Round Rope	Ceramic Fiber Round Rope
Temperature	1260°C	1425°C
Product construction	Glass Filament / Stainless Steel Resin	Glass Filament /Stainless Steel /Resin
Density (Kg/m³)	200/500	200/680
Long-term operation on temp (°C)	400/850	500/1050
Water content (%)	<=2	<=2
Organic content (%)	<=15	<=15
Packing	Cartons or woven bags and box	

* Rope Size - 6, 8, 10, 13, 20, 25, 50, 75, 100 mm

Note: All data reflects typical results from standard tests performed under controlled conditions. This information is provided solely as a general reference for specifications and design estimates.

CERAMIC FIBER MODULE

Kovatex Ceramic Fiber Modules are high-performnce pre-engineered units for fast installation in high-temperature applications. Made from compressed ceramic fiber blankets, these modules are folded or stacked into high-density blocks, secured with stainless steel or alloy hardware for stability and durability. Their modular design enables rapid installation, minimal heat loss, and excellent resistance to thermal shock, making them an ideal solution for industrial furnaces, kilns, and other high-temperature environments.

Designed for superior insulation performance, our ceramic fiber modules feature low thermal conductivity, lightweight construction, and high-temperature stability (up to 1600°C). Their flexible and resilient structure accommodates furnace expansion and contraction, reducing maintenance and downtime. Available in various sizes, densities, and anchoring systems, Kovatex modules are customizable to fit diverse industrial needs, ensuring energy efficiency and long-lasting performance.

Characteristics:

- High-temperature resistance (up to 1600°C)
- Low thermal conductivity for superior insulation
- Fast & easy installation with secure anchoring systems
- Excellent thermal shock resistance
- Lightweight, flexible, and durable
- Minimal heat storage and energy loss

Applications:

- Industrial Furnaces & Kilns
- Petrochemical Heaters
- Power Plants & Boilers
- Incinerators & Thermal Processing Units
- Glass & Cement Industries

Technical Index		
Specifications	RT-1260°C (2300°F)	HTZ-1425°C (2600°F)
Melting Point °C.	1780 °C	1780 °C
Max Continuos Use Temp. °C.	1050 °C	1200 °C
Color	White	White
Fiber Diameter (µm) (Micron)	2.7 ~ 3.6	2.7 ~ 3.6

* Custom sizes & density available on request subject to minimum order requirements.

Note: All data reflects typical results from standard tests performed under controlled conditions. This information is provided solely as a general reference for specifications and design estimates.