



Specifications

1. Supplier & Product Information

Supplier Name:
UniTherm International
711 Jones Street
Lewisville, Texas 75057

Product:
Ceramic Fiber Blanket

2. Characteristics

Chemical and thermal stability
Low thermal shrinkage
Excellent tensile strength
Excellent handling strength
Excellent hot strength
Light weight
Resiliency
Thermal shock resistance

Low thermal conductivity
Low heat storage
High heat reflectance
Excellent corrosion resistance
Excellent fire protection
Excellent sound absorption
Excellent thermal stability

3. Applications

Boiler and water heater linings for combustion areas
Ceramic kiln linings
Industrial furnace linings
Backup insulation for castables, bricks, etc
High temperature gasket
Usable anywhere high temperature insulation is required

Field steam generator lining
Atmosphere furnace lining
Nuclear insulation application
High temperature filtration
Annealing cover seals
Incineration equipment and stack linings
Glass furnace crown insulation
High temperature gasketing

4. Ceramic Fiber Blanket

Ceramic Fiber Blanket is produced from exceptionally pure oxides of alumina and silicate using the spinning process. The resultant quality spun fibers have been optimized for high handling strength. Ceramic Fiber Blanket is available in a wide variety of densities and sizes. Ceramic Fiber Blanket offers excellent handle ability and high temperature stability which allows it to meet a wide range of hot face and back up insulation applications in furnaces, kilns and other equipment requiring high temperature heat containment.

5. Typical Physical Properties

Color	White
Continuous Temperature	2300° F
Melting Point	2900° F
Fiber Diameter	2 - 4 Microns
Fiber Length	8" Average
Linear Shrinkage	Less than 3% at 1900° F
Density PCF	4,6,8,10
Thickness	1/2"-2"

6. Thermal Conductivity

Temperature	8# Cu. Ft.	6# Cu. Ft.
600° F	0.40	0.44
1000° F	0.75	1.06
1400° F	1.15	1.90

7. Technical Index

Grade	WM	STD	HP	HA	HZ
Classification Temperature	2012° F	2300° F	2300° F	2480° F	2606° F
Working Temperature	1832° F	1922° F	2012° F	2192° F	2462° F
Density (lb/ft³)	6 - 8lb/ft ³	6 - 8lb/ft ³	6 - 8lb/ft ³	8 - 10lb/ft ³	8 - 10lb/ft ³
Line Shrinkage (%) after 24 hours	4 (1832° F)	3 (1832° F)	3 (2012° F)	3 (2282° F)	3 (2462° F)
Tensile Strength (Mpa)	0.04	0.04	0.04	0.04	0.04

8. Chemical Analysis

Grade	WM	STD	HP	HA	HZ
Thermal Conductivity w/m.k. Density (lb/ft³)	0.09 (752°F) 0.18 (1472°F)	0.09 (752°F) 0.18 (1472°F)	0.09 (752°F) 0.18 (1472°F) 0.22(1832°F)	0.13 (1112 °F)	0.76 (1112°F) 0.22 (1832°F)
Al₂O₃	44	46%	47-49	52-55	39-40
SiO₂	52	54%	50-52	44-47	-
Fe₂O₃	<1.2%	<1.2%	<1.2%	0.2	0.2
Na₂O	.25%	.25%	.1%	.1%	.1%
K₂O	.25%	.25%	.1%	.1%	.1%
ZrO₂	0	< .5	0	0	15 - 17%
Thickness of Fiber (inches)	1/2" - 2"	1/2" - 2"	1/2" - 2"	1/2" - 2"	1/2" - 2"
Leachable Chlorides	>10ppm				
Regular Size	1" x 24" x 25' 1" x 48" x 25'				
Quality System Certificate	ISO 9001 - 2000, ASTM				
Color	white				