CERAMIC FIBER BLANKET

General Information

Ceramic fiber blanket is made from high quality Gao-ling clay, high purity alumina and silica oxides by spun or blown process. It is asbestos free. No chemical binder is added. Double-side needling provides blanket with great tensile or handing strength for easy installation.

Features

◆Low thermal conductivity ◆High tensile strength
◆Resilient to thermal shock ◆Corrosion resistance

Application

◆ Petrochemical process heater refractory fiber lining ◆ General furnace backup insulation
◆ Heat treating furnace or intermittent (shuttle) kiln hot face lining ◆ Electrical insulator
◆ Heat seals for kiln car or furnace door ◆ High temperature acoustic ◆ Fire protection

		STD	HP	HA	HZ
Temperature Grade	℃	1260	1260	1350	1430
	℉	2300	2300	2460	2600
Recommended Operating Temp.	℃	1050	1100	1200	1350
	℉	1920	2010	2190	2460
Available Density	Kg/m^3	64,96,128,160			
	lb/ft^3	4,6,8,10			
Color		White	White	White	White
Thermal Shrinkage (24hrs) 128Kg/m^3	%	≤3	≤3	≤3.5	≤3.5
	℃	1150	1250	1300	1350
Thermal Conductivity (W/m.k) 128Kg/m^3	800℃	0.15	0.176	-	-
	1000℃	0.17	0.22	0.18	0.23
	1200℃	-	-	0.26	0.31
Chemical Composition					
Al_2O_3	%	45-47	45-46	53-55	38-54
$Al_2O_3+SiO_2$	%	98.5	99	99	82-90
ZrO_2	%	-	-	-	10-18
Size	mm	Width: ≤1220mm (Standard 610mm) Thickness: 6-60mm (Standard 13mm, 25mm, 50mm (Non-standard sizes are available upon request)			

This information, subject to change, is offered solely for your consideration. Users of our products should make their own tests to determine the suitability of each product for their particular purposes.

CERAMIC FIBER BOARD

General Information

Ceramic fiber board is manufactured in a wet vacuum forming process by blending the chopped ceramic fiber with inorganic or organic binders for excellent abrasive resistance at high temperature.

Features

- ◆ Low thermal conductivity
- ◆ Low heat storage
- ◆ Excellent thermal shock resistance
- ◆ Resist most chemical attacks

Application

- ◆ Hot air duct lining
- ◆ Laboratory furnace
- ◆ Die-cut high temperature seal
- ◆ Shuttle kiln with high gas velocity
- ◆ Kiln car insulation

		STD	HP	HA	HZ
Temperature Grade	℃	1260	1260	1350	1430
	℉	2300	2300	2460	2600
Recommended Operating Temp.	℃	1000	1100	1200	1350
	℉	1830	2010	2190	2460
Available Density	Kg/m^3	240-400			
	lb/ft^3	15-25			
Color		White	White	White	White
Thermal Shrinkage (24hrs)	%	-3.3	-3.2	-3.6	-3.8
	℃	1200	1260	1350	1400
Thermal Conductivity (W/m.k) 128Kg/m^3	800℃	0.136	0.128	0.120	0.114
	1000℃	0.152	0.150	0.143	0.146
	1200℃	0.190	0.178	0.160	0.158
Chemical Composition					
Al_2O_3	%	45-47	47-49	53-55	38-54
$Al_2O_3+SiO_2$	%	97-98.5	98-99	98.5-99	83-89
ZrO_2	%	-	-	-	10-18
Size	mm	Length: ≤1500mm Width: ≤1200mm Thickness: 3-150 (Non-standard sizes are available upon request)			

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CERAMIC FIBER PAPER

General Information

Ceramic fiber paper is manufactured from selected high purity ceramic fibers with low shot content. Its organic binders provide the product with good strength against tearing. It is excellent for heat seal.

Features

- ◆Easy to cut, wrap or form
- ◆Low thermal conductivity
- ◆Thermal shock resistant
- ◆Low heat storage

Application

- ◆ High temperature gasket
- ◆ Boiler door seal
- ◆Refractory expansion joint
- ◆ Furnaces backup insulation
- ◆Lining for aluminum casting molds
- ◆ Thermal and electrical insulation for heaters
- ◆Heat insulation for exhaust tubes and pipes
- ◆ Acoustic and thermal insulation for automobile mufflers
- ◆ Electrical switch box fire protection

		STD	HA	HZ
Temperature Grade	℃	1260	1350	1430
	℉	2300	2450	2600
Recommended Operating Temp.	℃	1000	1200	1300
	℉	1830	2200	2370
Available Density	Kg/m^3	160-200	160-220	
	lb/ft^3	10-12.5	10-3.75	
Color		White	White	White
Binder Content	%	≤8	≤8	≤8
Thermal Shrinkage (24hrs)	%	≤0.7	≤0.6	≤0.4
	℃	1000	1000	1000
Thermal Conductivity (W/m.k)	400℃	≤0.1	≤0.1	≤0.08
	800℃	≤0.19	≤0.19	≤0.16
	1000℃	≤0.36	≤0.36	≤0.22
Chemical Composition				
Al_2O_3	%	≥45	≥52	-
$Al_2O_3+SiO_2$	%	≥97	≥97	-
ZrO_2	%	-	-	≥99
Size	mm	Width: ≤1270mm Thickness: 0.4-10mm (Non-standard sizes are available upon request)		

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CERAMIC FIBER MODULE

General Information

Ceramic fiber module is made of ceramic fiber blanket, which are stack folded to form a module with folded edges exposed. The module should be secured. Pre-cutting and Z block are both available.

Features

- ◆Fast and easy installation
- ◆Lower heat storage and fuel costs
- ◆Several anchor systems
- ◆High tensile strength

Application

- ◆ Petrochemical process heater
- ◆ Ceramic firing kiln
- ◆ Backup insulation
- ◆ Heat treating furnace
- ◆ Cement rotary kiln
- ◆ Glass melting tank

		STD	HP	HA	HZ
Temperature Grade	℃	1260	1260	1350	1430
	℉	2300	2300	2460	2600
Recommended Operating Temp.	℃	1050	1100	1200	1350
	℉	1920	2010	2190	2460
Available Density	Kg/m^3	160-200			
	lb/ft^3	10-12.5			
Color		White	White	White	White
Thermal Shrinkage (24hrs) $128Kg/m^3$	%	⩽3	⩽3	⩽3.5	⩽3.5
	℃	1150	1250	1300	1350
Thermal Conductivity (W/m.k) $128Kg/m^3$	800℃	0.15	0.176	-	-
	1000℃	0.17	0.22	0.18	0.23
	1200℃	-	-	0.26	0.31
Chemical Composition					
Al_2O_3	%	45-47	45-46	53-55	38-54
$Al_2O_3+SiO_2$	%	98.5	99	99	82-90
ZrO_2	%	-	-	-	10-18
Size	mm	Length: ⩽600 Width: ⩽600 Thickness: ⩽600 (Non-standard sizes are available upon request)			
Anchoring Part		304# and 310# stainless steel Shape: butterfly, rhombus and angled			

CERAMIC FIBER VENEERING MODULE

General Information

Ceramic fiber veneering module is made of are made ceramic fiber turned edge-grain and slightly compressed with a gauze type wrap, which are stack folded to form a module with folded edges exposed. They can be applied over a variety of refractory surfaces.

Features

- ◆ Easily installed over existing refractory surface
- ◆ Excellent thermal stability
- ◆ Good insulating properties

Application

- ◆Forge furnaces
- ◆Crucible furnace
- ◆Rotary hearth furnace
- ◆Holding furnace
- ◆Heat treating furnace
- ◆Ceramic kiln

Please see the above technical datas of module for your reference.

HIGH TEMPERATURE TEXTILE

Ceramic fiber textiles are high performance thermal textiles made of high quality ceramic fiber. The textiles range is composed of yarn, cloth, tape, rope, braided packing, sleeving, etc.

They are reinforced with E-glass fiber or stainless steel wire 304 or 310. E-glass fiber reinforcement is used where metal is undesirable, especially when using the textiles as a dielectric, while the steel wire reinforcement provides maximum strength at elevated temperatures .In applications where the tensile strength is important, temperature limits of inserted materials should be considered.

CMAX ceramic fiber textiles contain carrier fiber to facilitate the carding process. The textiles normally contain 16-20% rayon fiber which will burn out at high temperature, but has no effect on the properties of the products.

Service Temperature Limit	℃	1260
	℉	2300
Melting Point	℃	1760
	℉	3200
Temperature Limit of Insert	℃	650—Glass 1100—Stainless steel
	℉	1202—Glass 2012—Stainless steel
Fiber diameter	μm	3-4
Thermal Shrinkage (24hrs) 128Kg/m^3	%	≤3
	℃	1150
Thermal Conductivity 1000℃(1832℉)	(W/m.k)	0.18
Linear shrinkage 1100℃(2012℉)x 24hr	%	3
Loss on ignition	%	18
Electrical	—	Glass Non-Conductive Stainless Steel Conductive
Chemical Composition		
Al_2O_3	%	47-49
Al_2O_3 +SiO_2	%	99

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CERAMIC FIBER YARN

General Information

CMAX ceramic fiber yarn is manufactured from high quality alumina-silica ceramic fiber and has been mechanically twisted to give it tensile strength. The yarn is available as E-glass or stainless steel wire 304 or 310 reinforced yarn from 330 Tex to 2500 Tex in single, two or three plies.

Application

◆High temperature gaskets ◆Making cloth, tape, rope, etc
◆Sewing thread for high temperature textiles

CERAMIC FIBER TWISTED ROPE

General Information

Ceramic fiber twisted rope is fabricated from ceramic fiber yarn twisted to form a cord of specified diameters, with glass filament or stainless steel wire 304 or 310 inserted to provide high strength at elevated temperatures. It can be performed as radiant tube packing for heat-treated furnaces, expansion joint packing, seals for stoves and ovens, bulb in tadpole gaskets, wick for oil burning apparatus, fireproof wrap and insulation.

Diameter: 3mm-50mm (1/8”-2”)

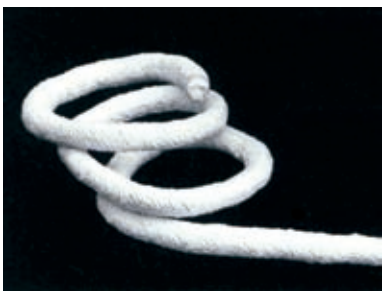
Option:

3-Ply twisted rope

3-Ply sliver twisted rope

Tadpole

CERAMIC FIBER ROUND BRAIDED PACKING



General Information

Ceramic fiber round braided packing is dense, resilient, high performance ceramic fiber material fabricated from E-glass or stainless steel wire 304 or 310 inserted ceramic fiber yarn which is braided around a core of ceramic fiber cord to form a packing in round section.

Diameter: 4mm-100mm (4/25”-4”)

CERAMIC FIBER SQUARE BRAIDED PACKING

General Information

Ceramic fiber square braided packing is dense, resilient, high performance ceramic fiber material fabricated from E-glass or stainless steel wire 304 or 310 inserted ceramic fiber yarn which braided around a core of ceramic fiber cord to form a packing in square section.

Diameter: 6mm-100mm (1/4”-4”)

CERAMIC FIBER CLOTH

General Information

Ceramic fiber cloth is a high performance thermal cloth manufactures from ceramic fiber yarn. It can be used as protection against high temperature, barrier to prevent fire spreading, welding curtains and fire blankets, furnace curtains, high temperature electricity insulation, cable and fuel line protection, fireproof wrap, etc

Thickness: 2mm-10mm (2/25”-3/8”)

CERAMIC FIBER TAPE

General Information

Ceramic fiber tape is manufactured from high quality alumina-silica fiber yarn .It can be used as protection against high temperature, high temperature electrical insulation, cable and fuel line protection, fireproof wrap, gasket and seal, etc.

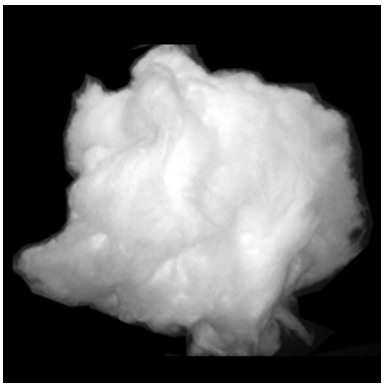
Thickness: 2mm-10mm (2/25”-3/8”)

Width: 20mm-1000mm (3/4”-40”)

Option: Ladder Tape

The ceramic fiber ladder tape without warp yarn in the center is used for drilling through the bolt hole, etc.

BULK REFRACTORY FIBER



General Information

Bulk refractory fibers are made from high quality Gao-ling clay, high purity alumina and silica oxides. The fibers are strong, high purity fibers unaffected by chemicals except for hydrofluoric and phosphoric acids and strong alkalies.

Features

◆Low thermal conductivity
◆High heat resistance
◆Resilient to thermal shock
◆Corrosion resistance

Application

◆Manufacturing of blanket, paper, board, etc
◆Loose insulating fill fro crowns and walls of kilns and furnaces
◆Packing expansion joints in refractory constructions

Type: 1260℃ STD/HP, 1350℃ HA, 1430℃ HZ

VACUUM FORMED SHAPE

General Information

Vacuum formed shapes are vacuum formed from wet slurry in a variety of specially engineered formulations. It manufactured from CMAX fiber and carefully selected organic and inorganic binders. Except the standard shapes such us tubes, tap hole cones, burner block and kiln car blocks, it's also could be produced as special drawings and specifications.

Features

◆Low thermal conductivity
◆Light weight
◆Flame resistance
◆Design freedom

CERAMIC FIBER GASKET

General Information

Ceramic fiber gasket is made from ceramic fiber paper. The gasket is supplied in a wide range of thicknesses and shapes. It's also could be produced as special drawings and specifications.

Features

◆Low thermal conductivity
◆Low specific heat
◆Design freedom
◆Resilient to thermal shock