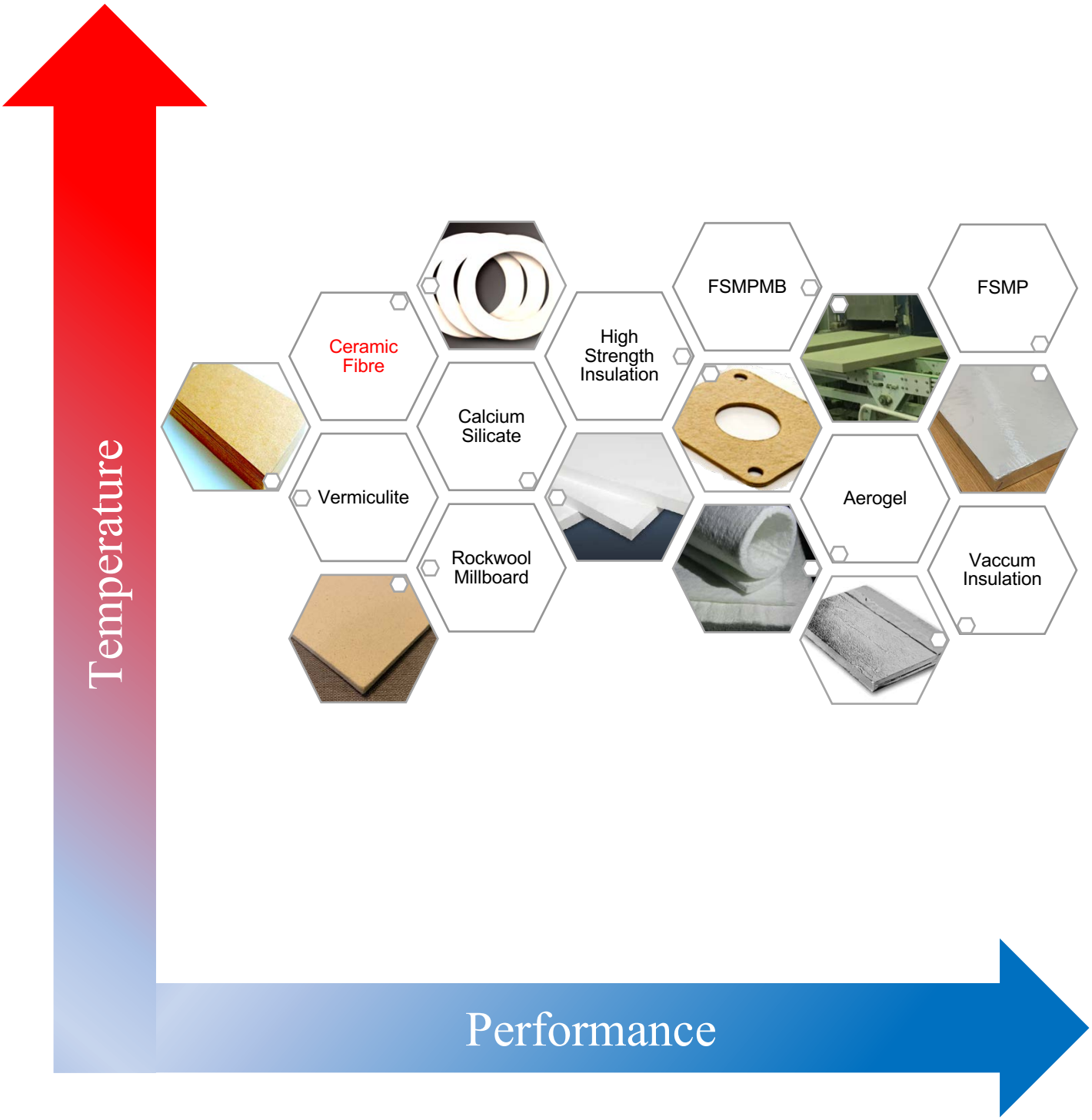
Wedge

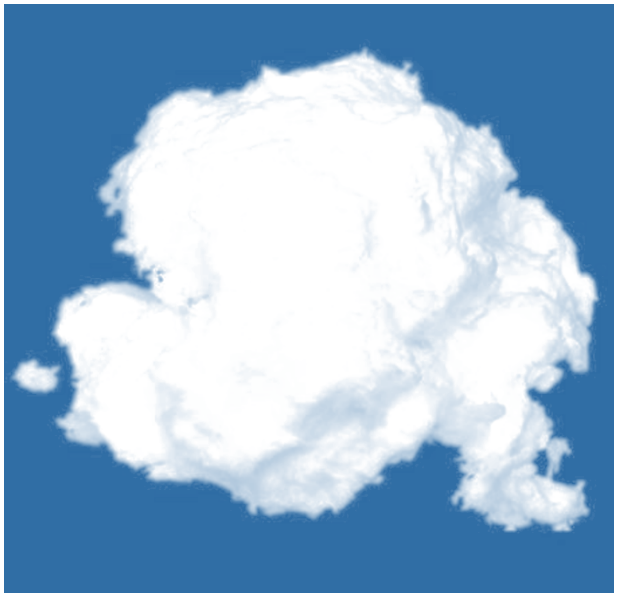
Ceramic Fiber Insulation

High Performance | Low Cost | Long Life



AlSi Ceramic Wool Bulk | Technical Datasheet

Wedge AlSi Wool are Ceramic Fiber Bulks are made of high purity high purity composite raw materials, melted in the resistance furnaces and processed by blowing or spinning technology.



Features & Benefits

- High thermal shock resistance
- Excellent thermal stability
- Low thermal conductivity
- Low heat storage
- High temperature resistance

Applications

- Raw materials for Ceramic Fiber Blanket & Boards.
- As joint filling materials in insulation installation.
- Packing expansion joints
- Fire Resistant Doors Making as filler
- Kiln car filling

Items	AlSi 96	AlSi 99	TEXTILE	CHOPPED	ASZ 15
Fiber Diameter（um）	3~5				
Shot content(Φ≥0.212mm)（%）	≤15	≤15	≤12	（Φ≥100mesh）≤10	≤12
Chopped Length mm(inch)	203(8)	203(8)	203(8)	203(8)	203(8)
Al2O3	≥44	≥45	≥45	≥45	≥34
Al2O3+SiO2	≥96	≥99	≥99	≥99	≥84
ZrO2					≥15
Fe2O3	＜0.5	＜0.5	≤0.3		≤0.3
Na2O+K2O+Fe2O3	＜0.9	＜0.9	＜0.9	＜0.9	＜0.9
Classification Temperature（℃）	1260	1260	1260	1260	1430
Melting Temperature（℃）	1425	1575	1575	1575	1750
Thermal conductivity（W/m.k）					
200℃	0.06	0.07	0.06	0.06	0.075
400℃	0.09	0.1	0.1	0.1	0.11
500℃	0.118	0.118	0.118	0.118	0.14
600℃	0.15	0.15	0.15	0.15	0.168
Packaging	Plastic bag inside, woven bag outside or with Vacuum bag				

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AlSi Ceramic Fiber Blanket | Technical Datasheet

Wedge AlSi Blanket is Ceramic Fiber Blanket made from bulk fibers, produced by the most modern spinning needling and thermal forming processes. Ceramic Fiber Blanket consist of a group of thermally efficient high temperature insulating materials that combine the advantages of both low heat storage and complete resistance to thermal shock.

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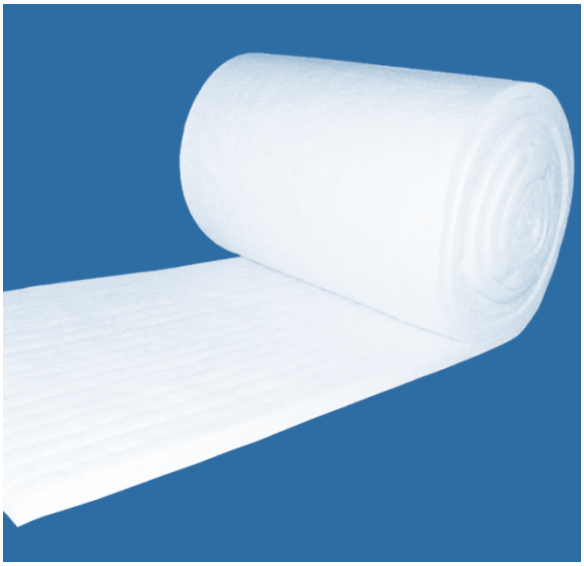
Features & Benefits

- High thermal shock resistance
- Heat resistance
- Low thermal conductivity
- Excellent chemical stability
- Low shot content
- Low heat storage
- High tensile strength



Applications

- Industrial furnace lining
- High temperature pipes heat preserve
- Heat resistant sealing gasket
- Glass tank furnace thermal insulation
- Power boiler and nuclear heat insulation
- Ceramics kilns thermal insulation
- High temperature filter materials

Item	AlSi96 1260			AlSi98 1260			1430 ASZ Blanket		
Chemical Composition（%）									
Al2O3	44			≥45			≥34		
Al2O3+SiO2	≥96			≥98			≥85		
ZrO2	-			-			≥15		
Al2O3+SiO2+ZrO2	-			-			≥99		
Fe2O3+RTiO2	1.0			≤0.5			≤0.5		
K2O+Na2O	1.0			≤0.2			≤0.2		
Density（Kg/M3）	80	96	128	96	128	160	96	128	160
Classification Temperature（℃）	1260			1260			1430		
Shot Content(%)	≤15			≤15			≤12		
Fiber Diameter（um）	3.5			3.5			3.5		
Permanent Heating Linear Change %				1100℃X24h≤-2.5			1350℃X24h≤-2.5		
Thermal Conductivity（W/m.k）									
400℃	0.100	0.090	0.095	0.124	0.114	0.101	0.138	0.122	0.118
500℃	0.122	0.119	0.123	0.145	0.135	0.120	0.179	0.153	0.145
600℃	0.155	0.152	0.158	0.202	0.191	0.175	0.220	0.184	0.172
Tensile Strength （Mpa）	0.040	0.040	0.050	0.050	0.060	0.075	0.050	0.060	0.075
Specifications（mm）	Length X Width：14400/7200/3600X1220/610;Thickness： 6~60mm								
Packing	Plastic bag inside, carton box outside or with pallet or woven bags Can be customized by specific requirement.								
Quality Certificate	ISO9001-2008 ISO14001-2004								

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AlSi Ceramic Fiber Boards | Technical Datasheet

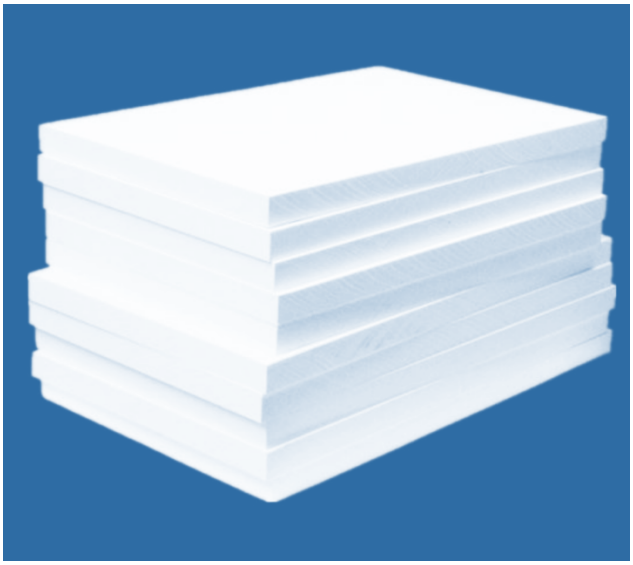
Wedge AlSi Boards are high quality ceramic fiber boards processed by wet vacuum forming process. The strength of this kind of product is higher than that of ceramic fiber blanket and vacuum forming felt. It is suitable for the high temperature field where the product has steel strength requirements.

Features & Benefits

- High thermal shock resistance
- Heat resistance
- Low thermal conductivity
- Excellent chemical stability
- Non-wetting to molten aluminium
- Low heat storage
- Easy to cut and machine

Applications

- Industrial furnace lining
- High temperature pipes heat preserve
- Heat resistant sealing gasket
- Glass tank furnace Side Wall
- Power boiler and nuclear heat insulation
- Ceramics kilns thermal insulation
- High temperature filter materials



Description	B-AlSi 1050	B-AlSi 1260	B-AlSi 1260S	B-ASZ 1430
Permanent Heating Linear Change（%）	950℃X24h≤-4	1000℃X24h≤-4	1100℃X24h≤-4	1350℃X24h≤-4
Water Content（%）	≤-1.5			
Organic Content（%）	≥-6			
Density（Kg/M3）	250~300	280~320	300~320	300~320
Al2O3	≥40	≥43	44-47	
Al2O3+SiO2	≥95	≥96	≥98	
Al2O3+SiO2+ZrO2				≥99
ZrO2				≥15
Fe2O3	＜0.5	＜0.5	≤0.3	≤0.2
Na2O+K2O+Fe2O3	＜0.9			
Thermal Conductivity(W/m.k)				
200℃	0.082	0.074	0.055	0.078
400℃	0.102	0.092	0.073	0.102
500℃	0.110	0.103	0.086	0.116
600℃	0.133	0.127	0.105	0.135
Cold Crushing Strength (Mpa)	0.2	0.2	0.15-0.2	0.12
Product Specifications	Length: 900/1000/1200/2400mm; Width：500/600/1000/1200mm; Thickness：3~125mm All sizes can be customized made			
Packaging	Carton Box outside or with pallet			
Quality Certificate	ISO9001-2008 ISO14001-2004			

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AlSi Ceramic Fiber Paper | Technical Datasheet

Wedge AlSi Paper are Ceramic Fiber Paper manufactured from high-grade ceramic fiber formed into flexible sheet. It offers high temperature resistance, very low thermal conductivity, chemical corrosion resistance and thermal shock stability. Ceramic Fiber Paper can be widely used in the applications where purity, cracking resistance and heat resistance are highly required. It provides excellent heat resistance and thermal insulation in a rather limited space.

Features & Benefits

- High thermal shock resistance
- Heat resistance
- Low thermal conductivity
- Excellent chemical stability
- Non-wetting to molten aluminium
- Low heat storage
- Easy to cut and machine

Applications

- Industrial furnace lining
- High temperature pipes heat preserve
- High temperature insulation gasket
- Ingot mould liner
- Refractory Backup Insulation
- Molten metal splash and spark protection
- Heat shield and silencer insulation
- Hot top lining
- High temperature seals materials

Description	STD Paper	HA Paper	HZ Paper
Al2O3 %	47	≥52	≥34
SiO2 %	≥52	≥47	≥50
ZrO2 %	-	-	≥15
Fe2O3 %	5	≤0.5	≤0.5
Na2O %		≤0.2	≤0.2
Tensile Strength（MPa）	≥0.3	≥0.3	≥0.3
Water Content（%）	≤2		
Loss of Ignition（%）	≤10		
Organic Content（%）	≤9	≤8	≤8
Density （Kg/M3）	190~250		
Product Specifications	Length X Width : 40000/30000/20000/10000X1220/610/ Thickness: 0.5~6mmAll sizes can be customized made		
Packaging	Plastic bag inside, carton box outside or with specific requirement		
Certificates	ISO9001-2008;ISO14001-2004		

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AlSi Ceramic Fiber Fabric Cloth | Technical Datasheet

Wedge AlSi Cloth is Ceramic Ceramic Fiber Cloth a cost-effective industrial cloth manufactured from ceramic fiber yarn, reinforced by a core of glass filament or stainless steel wire for high strength retention at elevated temperatures, ideal for most high temperature applications up to 1000°C. Ceramic Fiber Cloth contains approximately 18% organic fiber which burns out at high temperatures, causing some smoking, but the cloth retains enough strength to be used as effective insulating cloth at high temperatures. General specifications of ceramic fiber cloth: 1.5mm--6mm, general width is 1m, which is divided into (nickel chrome wire reinforced, stainless steel wire reinforced, glass fiber reinforced, ceramic fiber coated cloth, ceramic fiber slag cloth, ceramic Fiber sintered cloth, ceramic fiber fumigation cloth).

Features & Benefits

- High thermal shock resistance
- Heat resistance
- Low thermal conductivity
- Excellent chemical stability
- Non-wetting to molten aluminium
- Low heat storage
- Easy to cut and machine

Applications

- Furnace Curtains
- High temperature insulation
- High temperature electronics insulation
- Combustion pipes protection
- Lining cloth for welding
- Fireproof rolling curtain
- Lining sleeves for industrial gas pipes

Description	FG Cloth	SS Cloth
Al2O3（%）	45-46	
SiO2（%）	52-53	
Al2O3+SiO2(%)	98	
Fe2O3（%）	0.85	
Fiber length(mm)	75	
Fiber diameter(um)	5.2	
Density (Kg/M3)	500-550	500-550
Classification temperature (℃)	1260	
Maximum Service Temperature (℃)	500-600	1000
Water Content (%)	≤1	
Organic Content（%）	≤18	
Thickness(mm)	1~6mm	
width(mm)	1000mm	
Reinforced Material	Fiberglass	Stainless Steel
FG: Fiberglass; SS: Stainless steel;		

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AlSi Ceramic Fiber Textile & Braided Rope | Technical Datasheet

Wedge AlSi Textile is Ceramic Fiber Yarn made manufactured from high quality spun fiber 1260℃ , and has been mechanically twisted to give it tensile strength. The yarn is available with E-glass, stainless steel wire or high temperature alloy wire reinforced yarn from 525 Tex up to 2500 Tex in single, two or three plies of single yarn twisted together in order to form a heavier yarn or higher strength.

Ceramic Fiber Round Braided Rope

Round packing is a dense, resilient, high performance ceramic fiber material fabricated from ceramic fiber yarn braided around a core of ceramic fiber rope to form a packing in round section. It is widely used for a broad variety of high temperature gasket, packing and sealing application.

Ceramic Fiber Square Braided Rope

Square packing is dense, resilient, high performance ceramic fiber material plaited from E-glass, stainless steel wire or high temperature alloy wire inserted ceramic fiber yarn to form a packing in square section.

Ceramic Fiber Twisted Rope

Twisted Packing fabricated from ceramic fiber yarn twisted left hand/right hand together to form a rope of specified diameters ranging from 3 mm to 50 mm, with glass filament, stainless steel wire or high temperature alloy wire inserted to provide high strength at elevated temperature.

Applications

- Wrapping insulation and refractory
- Sealing for different kinds of furnaces and doors
- High temperature gasket
- Lamp wick for burning equipment
- Replacement for Asbestos

Description	FG R-Rope	SS R-Rope	FG S-Rope	SS S-Rope	FG T-Rope	SS T-Rope
Al2O3（%）	45-46					
SiO2（%）	52-53					
Al2O3+SiO2(%)	98					
Fe2O3（%）	0.85					
Density (Kg/M3)	500-650					
Classification temperature (℃)	1260					
Maximum Service Temperature (℃)	500-600	1000	500-600	1000	500-600	1000
Water Content (%)	≤1					
Organic Content（%）	≤18					
Specifications	According to specific requirement					
Reinforced Material	Fiberglass				Stainless Steel	
FG: Fiberglass; SS: Stainless steel; R-Rope: Round Rope, S-rope: Square Rope, T-rope: Twisted Rope						

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