



Refractory Materials



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Widely used at the bell type furnace, annealing furnace, heating furnace, hot blast stove, sintering furnace, resistance furnace, Muffle furnace, roller kiln, push plate kiln and other industrial furnaces for metallurgy, chemical industry, mechanics, electronics, ceramics, glass enamel, space flight and aviation and scientific research in the military industry and other industries

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■ Made In China



China Made

Guoju with 200 employees have been developing and producing industrial furnaces for many different applications for over 10 years. As a furnace manufacturer, Guoju offers the widest and deepest range of furnaces. Around 1000 satisfied customers in more than 34 Provinces offer proof of our commitment to excellent design, quality and cost efficiency. Short delivery times are ensured due to our complete inhouse production and our wide variety of standard furnaces.

Excellent Quality, High Reputation

After years of development the company has a maturity high temperature kiln production line, and also has a Middle or high scientific research team, it is a specializes in the research and production and marketing integrated private enterprise. Our company based on the principle of seeking truth from facts innovation first and user foremost, keep introduced advanced technology and modern management experience from domestic and international, and also made the rigorous process standard and strict quality control system and testing method.

Sales and Service Network – Close to you

All type furnace and kiln have the high level of automation, are of domestic leading position, sold to 20 provinces, cities, autonomous regions, special economic regions, state major university, state major laboratory, institute of Chinese academy of sciences, Chinese institutions of higher learning, which has been exported to North America, Russia, Philippines, Japan and other countries. Also have the high reputation in the same industry.

Customer Service and Spare Parts

The staff of our company's customer service department will be eager to answer all the questions which you ask. Due to our complete inhouse production, we can dispatch most spare parts from stock over night or produce with short delivery time.

Ultra-high temperature polycrystalline alumina fiber board



The products are fabricated by suck-press combined method using polycrystalline alumina fiber as main starting materials, adding packing materials and binders. Compared with calcined fiber products, the products are featured with better machinability, lower thermal conductivity and volume weight. The FHB1800 fiber board and special shaped products can long term serve at 1750°C and at 1800°C of the maximum and have been used in many kilns to substitute imported products, saving energy and cutting cost.

Model Parameter	KD-FR-1000	KD-FR-1260	KD-FR-1420	KD-FR-1500	KD-FR-1600	KD-FR-1700	KD-FR-1800	KD-FR-1850
Maximum Using Temperature, °C	1000	1260	1420	1500	1600	1700	1800	1850
Long-term using Temperature (Furnace Temperature), °C	950	1200	1350	1450	1550	1650	1750	1800
Volume weight kg.cm-3	300-600	300-600	400-700	400-700	400-700	400-700	450-700	500-700
Thermal conductivity w-(m-K)-1,1200°C	0.14	0.145	0.155	0.15	0.155	0.16	0.17	0.2
Linear shrinkage on heating %	1000	≤1	/	/	/	/	/	/
	1200	/	≤0.5	≤0.2	/	/	/	/
	1400	/	/	≤1	≤0.2	/	/	/
	1500	/	/	/	≤1	≤0.2	/	/
	1600	/	/	/	/	≤2	≤0.3	/
	1700	/	/	/	/	/	≤2	≤0.6
	1800	/	/	/	/	/	/	≤2

Application

Used as thermal and electric insulating materials for high temperature electric furnace and heating units of equipment, and lining materials for tunnel kiln and roller kiln

High Temperature Alumina Polycrystalline Fiber Cotton



Catachrestic:

KD- F The polycrystalline alumina fiber prepared by sol-gel method is characterized by low volume weight, low thermal conductivity, good thermal shock resistance, high service temperature, good chemical stability and good corrosion resistance, etc. It is widely applied in metallurgy, building materials, ceramics, and aerospace industries.

Application:

1. Made into fiber insulating felt/board or special shaped fiber products used in furnaces with service temperature above 1000-1800
2. Filling materials in expansion joints or short-term insulating patch
3. Reinforcing materials of piston, brake block or other alloy composites
4. Heat insulating layer of rocket motor or other insulating materials in aerospace industry.

Product		KD-F-1100	KD-F-1300	KD-F-1450	KD-F-1600	KD-F-1700	KD-F-1700A
Max. service temperature		1100	1300	1450	1600	1700	1700
Classify		High Purity	High Alumina	Comprise ZR	polycrystalline	polycrystalline	polycrystalline
Chemical Compositions %	Al ₂ O ₃	≥45	≥54	≥36	≥72	≥80	≥95
	SiO ₂	≥52	≥46	≥48	≥28	≥20	≥5
	Al ₂ O ₃ + SiO ₂	≥98	≥99	—	≥99.5	≥99.5	≥99.5
	Fe ₂ O ₃	≤0.8	≤0.2	≤0.1	—	—	—
	ZrO ₂	—	—	≥15	—	—	—
Fiber length (mm)		—	—	—	20-100	20-100	20-100
Average single fiber tensile strength ≥MPa		—	—	—	800	800	500
Average diameter μm		2-4	2-4	3-5	4	3.9	3.7
Slag-ball content (>0.212mm) , %		≤22	≤20	≤18	≤1	≤1	≤1
Packaging specifications		Preparation bag			Carton, NW 3kg / box		

Remark: Product technique data are an average value base on standard test, it will fluctuate in a certain range, is not the quality assurance data of the product.

High Temperature Ceramic Fiber Blanket



Product description: Refractory ceramic fiber blanket system using fiber-forming melt-blowing, especially by strengthening needling process, high-temperature heat setting from the fiber blanket. The blanket has all the characteristics of lightweight refractory casual cotton products, but also has good insulation properties and mechanical strength, ease of processing and installation.

Features: Low thermal conductivity, low thermal capacity; thermal shock, corrosion resistance, good anti-crystallization properties; excellent chemical stability; fiber elastic, high temperature shrinkage; ease of processing, installation;

Applications: Industrial furnaces, heating devices, heat pipe; gas turbines and nuclear power boilers, heat-sealed; fire protection and high temperature thermal insulation equipment; high-temperature reaction equipment and heating equipment lining the walls; high temperature filter material;

Specifications		KD-Q1100	KD-Q1200	KD-Q1300	KD-Q1400	KD-Q1600
Classify		Normal Alumina	High Purity Alumina	High Purity Alumina	Comprise ZR	Comprise ZR
Long-term service temperature ^{°C}		1100	1200	1300	1400	1600
Linear shrinkage on heating (%)		1000×24h≤-3	1100×24h≤-3	1200×24h≤-3	1350×24h≤-3	1550×24h≤-3
Thermal Conductivity W/(m·k) (128kg/m ³)	AvG 500 ^{°C}	≤0.153	≤0.153	≤0.153	≤0.153	
Fiber Tensile Strength (Mpa) (25mm)		≥0.04	≥0.05	≥0.04	≥0.06	≥0.06
Bulk Density (Kg/m ³)		80	96	128	160	160
Chemical Compositions(%)	Al ₂ O ₃	≥44	≥45	≥52	≥36	≥72
	SiO ₂	≥52	≥54	≥46	≥48	≥28
	Al ₂ O ₃ + SiO ₂	≥97	≥99	≥99	—	≥99
	Fe ₂ O ₃	≤0.8	≤0.2	≤0.2	≤0.1	—
	ZrO ₂	—	—	—	≥15	—
	ZrO ₂ + Al ₂ O ₃ + SiO ₂	—	—	—	≥99	—
Product Size (mm)		3600/7200×610×20/30/50				
Package style		Plastic bags		Bag + carton		

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High temperature Ceramic Fiber Blanket Module



Product description: Ceramic fiber folded module is the choice of ceramic fiber blanket acupuncture, the advanced equipment, by folding, the installation of anchors and other accessories sleepy tie together. This product is the most commonly used industrial furnace insulation module, the fiber module in a compressed state, in use after installation, the module due to the expansion of fiber rebound and make seamless lining, offset the heat shrinkage fiber, improved fiber lining thermal insulation properties. Depending on different environments. It can be coated with a surface treatment agent module Face, and improve the performance of the module

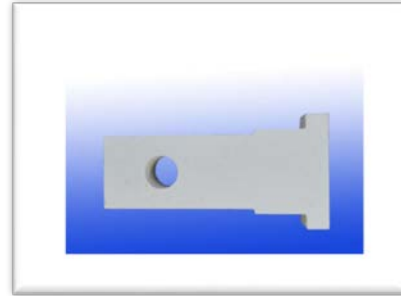
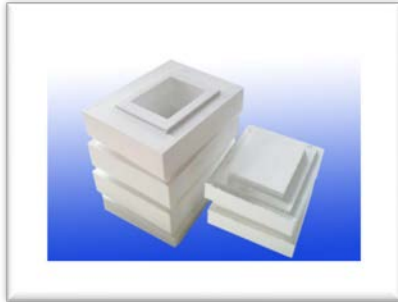
Features: Low bulk density, low thermal conductivity; excellent thermal stability, thermal shock resistance; excellent elasticity; high mechanical strength; convenient construction and installation;

Applications: Various full fiber furnace petrochemical industry; industrial boilers and power metallurgy and building materials industry a variety of electric furnace fiber lining; various ceramic kiln, tunnel kiln lining; lining of various thermal insulation devices;

Specifications		KD-W1100	KD-W1200	KD-W1300	KD-W1400	KD-W1400
Classify		Normal Alumina	High Purity	High Purity	Comprise ZR	Polycrystalline
Long-term service temperature °C		1100	1200	1300	1400	1600
Linear shrinkage on heating %		1000×24h≤-3	1100×24h≤-3	1200×24h≤-3	1350×24h≤-3	1550×24h≤-3
Thermal Conductivity W/(m·k) (128kg ³)	AvG 500°C	≤0.153	≤0.153	≤0.153	≤0.153	
Tensile Strength (Mpa) (25mm)		≥0.04	≥0.05	≥0.04	≥0.06	≥0.06
Voles density (Kg/m ³)		160-260	160-260	160-260	160-260	160-260
Chemical Composition (%)	Al ₂ O ₃	≥44	≥45	≥52	≥36	≥72
	SiO ₂	≥52	≥54	≥46	≥48	≥28
	Al ₂ O ₃ + SiO ₂	≥97	≥99	≥99	—	—
	Fe ₂ O ₃	≤0.8	≤0.2	≤0.2	≤0.1	—
	ZrO ₂	—	—	—	≥15	—
	ZrO ₂ + Al ₂ O ₃ + SiO ₂	—	—	—	≥99	≥99
Package style		Bag + carton				

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High Temperature Ceramic Fiber Special-shaped Product



The products are fabricated by suck-press combined method using polycrystalline alumina fiber as main starting materials, adding packing materials and binders. Special shaped products with different volume weights and specifications can be produced in accordance with design drawing of user. The products can long term serve at 1 750 °C and at 1 800 °C of the maximum, and have been used in many kilns to substitute imported products, saving energy and cutting cost.

Product specification

Model	KD-TY-1000	KD-TY-1260	KD-TY-1420	KD-TY-1500	KD-TY-1600	KD-TY-1700	KD-TY-1800	KD-TY-1850
Parameter								
Maximum Temperature, °C	1000	1260	1420	1500	1600	1700	1800	1850
Long-term Temperature °C	950	1200	1350	1450	1550	1650	1750	1800
Volume weight kg.cm-3	300-600	300-600	400-700	400-700	400-700	400-700	450-700	500-700
Thermal conductivity w·(m·K) ⁻¹ ,1200°C	0.14	0.145	0.155	0.15	0.155	0.16	0.17	0.2
Linear shrinkage on heating%	1000	≤1	/	/	/	/	/	/
	1200	/	≤0.5	≤0.2	/	/	/	/
	1400	/	/	≤1	≤0.2	/	/	/
	1500	/	/	/	≤1	≤0.2	/	/
	1600	/	/	/	/	≤2	≤0.3	/
	1700	/	/	/	/	/	≤2	≤0.6
	1800	/	/	/	/	/	/	≤2

Application

Used as thermal and electric insulating materials for high temperature electric furnace and heating units of equipment, and lining materials for tunnel kiln and roller kiln, Product specification, in accordance with design drawing of user.

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High Temperature Ceramic Fiber Veneer Pieces



Polycrystalline Alumina Fiber Module-cut is from polycrystalline alumina fiber by special process finishing cutting, compression formed. Does not contain any binders or other ingredients, with excellent elasticity and flexibility, the maximum temperature up to 1600 °C. They oxidizing atmosphere, the neutral atmosphere, the long-term bear this temperature, still maintain their original toughness, strength, flexibility and fiber structure, and non-residue ball, can be used by a variety of high-temperature industrial furnaces hot face lining paste, has a special significant insulation performance.

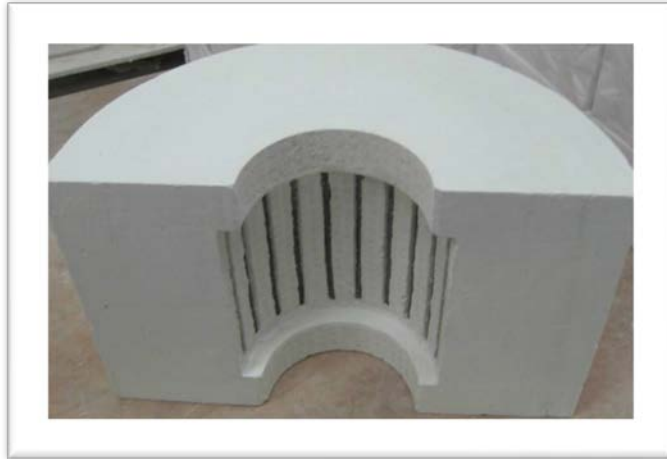
Application

Used as module-cut of working lining for various furnace such as heating furnace, soaking furnace, heat treatment furnace, and ceramic fast firing kiln, and sealing materials for furnace door or cover.

Product brand		KD-FT-1300	KD-FT-1450	KD-FT-1600	KD-FT-1700
Max. service temperature		1300	1450	1600	1700
Classify		High Aluminum	Comprise ZR	polycrystalline	polycrystalline
Linear shrinkage on heating %		1200x24h≤-3	1300x24h≤-3	1500x24h≤-3	1600x24h≤-3
Chemical Compositions %	Al ₂ O ₃	≥54	≥36	≥72	≥80
	SiO ₂	≥46	≥48	≥28	≥20
	Al ₂ O ₃ + SiO ₂	≥99	—	≥99.5	≥99.5
	Fe ₂ O ₃	≤0.2	≤0.1	—	—
	ZrO ₂	—	≥15	—	—
Product specification mm		Standard: 200×100×30-80 (Length * width * thickness) In accordance with design drawing of use			

Remark: Product technique data are an average value base on standard test, it will fluctuate in a certain range, is not the quality assurance data of the product.

Electric heating energy saving ceramic fiber furnace hearth



Product description:

Fiber electric heating module using the special process inlaying the fiber material with resistance wire, to form a single fibrous electrothermal hearth, the resistance wire setup model can be "W/Z/O" type. Molding method can be inlay or flush type. Working temperature around 300-1300°C. It has the unique advantages that is why it is the ideal alternative of the traditional resistance product. KD-GWL Electric heating energy saving ceramic fiber furnace hearth made up by high temperature resistance fiber materials. Energy-saving effect more than 40% compare with tradition furnace hearth.

Features:

High temperature stability, low thermal conductivity, low thermal capacity, thermal shock resistance, corrosion resistance, excellent insulation performance, excellent compression and flexural strength, simple use and easy to install.

Product Application:

Tubular furnace, Crucible furnace, Circular arc heater, chamber resistance furnace, large scale industrial electric heating furnace, All kind special shape resistance heater.

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High Temperature Ceramic Fiber Paper



Product Description:

Refractory ceramic fiber paper is based on alumina refractory fiber as raw material, adding an appropriate amount of binder through mechanical or manual process into a thin refractory fiber product.

Features:

Thermal conductivity, heat capacity; thermal shock resistance, corrosion resistance, anti-crystallization properties; excellent electrical insulation properties; excellent elasticity and flexibility, ease of processing and installation

Applications:

Industrial insulation, sealing, anti-corrosion materials electric equipment Insulation, insulation materials car muffler and muffler exhaust pipe insulation materials, equipment, electric components and insulation.

Product specification:

Product brand	KD-Z-1000	KD-Z-1200	KD-Z-1400	KD-Z-1600
Max. service temperature	1000	1200	1400	1600
Classify	High Purity	High Alumina	Comprise ZR	polycrystalline
Linear shrinkage on heating %	1000x24h≤-3.5	1200x24h≤-3	1500x24h≤-2.6	1500x24h≤-3
Product specification mm	Standard Dimension : 5000x600x1/2/3/5 (Length* Width *thickness)			

Remark: Product technique data are an average value base on standard test, it will fluctuate in a certain range, is not the quality assurance data of the product.