



Refractory Solutions For High-Temperature Industries

Professional / Effective / Reliable



Iron & Steel



Non-ferrous



Glass



Cement & Lime

Zhengzhou Kerui (Group) Refractory Co., Ltd.

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Welcome to Kerui

Expert of Refractory Solutions

Founded in 2004, Kerui Refractory is an international high-tech enterprise integrating R&D and innovation, manufacturing, solutions and service of high-performance refractory products.

Kerui attached great importance on R&D. In the past decades, we've obtained one invention patent certificate and more than 20 utility model patent certificates. Kerui insists on technological innovation to provide customers with better products.

KERUI main products include refractory bricks, insulating bricks, ceramic fiber products, unshaped refractory materials, etc. All the products are widely applied in high-temperature industries worldwide, such as iron-steel, aluminum, power, glass, boiler, non-ferrous, cement industry, etc., contributing to the development of global high-temperature industry.



Kerui Production View

Serving the Global High-temperature Industry

Raw Material Workshop

It covers an area of more than 3,000 square meters. There are complete categories and sufficient reserves to ensure the supply of raw materials required for stable production.



Batching Workshop

There is a fully automatic batching system. Through coarse, medium and fine crusher screening equipment, as well as powerful mixing equipment, the computer automatically controls the batching. Therefore, the uniformity and stability of the product is fundamentally ensured.



Forming Workshop

There are 20 sets of new CNC presses of 400-1000 tons. These machines have strong power and accurate dimensions, which can effectively improve the strength of products and ensure stable quality. Kerui adopts steel molds and special-shaped bricks can be customized in multiple sizes.



Kerui Production View

Serving the Global High-temperature Industry

Sintering Workshop

Kerui has possessed two 168 meter tunnel kilns, two high-temperature shuttle kilns, etc., which can ensure the annual production capacity of 150000t. We also have strong customization ability. The special-shaped and customized products have met different customers' requirement and won unanimous praise from customers.



Warehousing Workshop

After the finished product passes the quality inspection, it can be stored in the warehouse after being bundled and packaged with wooden pallets, three-layer plastic film, and steel straps. Kerui has a 5,000-square-meter modern warehousing workshop. This workshop integrates warehousing, packaging and shipping. It ensures the products to be delivered on schedule.



Digital Management

Kerui adopts a digital production centralized control center to strictly control the production process. From the selection and proportion of raw materials selection to the molding and sintering of refractory materials, Kerui has established a complete corporate product quality traceability system and production management system.



Kerui Certificates

Qualified by Certificates

Kerui Refractory has a number of international certifications, also have many domestic certificates, the quality is very guaranteed, and they have been unanimously recognized by customers at home and abroad.



Kerui R&D Center

Always Conducts Strict Quality Control

Focus on refractory industry for 20 years, Kerui Refractory stands out because of superior refractory products. Kerui established engineering technology center and professional physical and chemical analysis laboratory to control the quality.



Kerui Partners

All Over The World

KERUI has become the first choice of worldwide customers across 5 continents, including Asia, Europe, America, Africa, Oceania.

We serve the high-temperature industries all over the world, including iron and steel, aluminum, glass, cement, etc. We have a team of highly qualified and experienced application engineers, providing the " **TOTAL REFRACTORY SOLUTIONS** " to customers.





Refractory Bricks

Serving the Global High-temperature Industry

High Alumina Brick



High Working
Temperature



Good Thermal
Stability



Strong Slag
Resistance



Good Erosion and
Corrosion Resistance

Application:

High alumina brick is used for lining steel-making electric furnaces, glass melting furnaces, and cement rotary furnaces.

Technical Data:

Item		LZ-80	LZ-75	LZ-70	LZ-65	LZ-60	LZ-55	LZ-48
Al ₂ O ₃ , %	≥	80	75	70	65	60	55	48
Apparent Porosity, %	≤	21	24	24	24	26	22	22
Cold Crushing Strength, MPa	≥	70	60	55	50	45	45	40
0.2MPa Refractoriness Under Load, °C	≥	1530	1520	1510	1500	1430	1450	1420
Permanent Linear Change, %		1500°C*2h -0.4~0.2		1450°C*2h -0.4~0.1				

Fireclay Brick



High Working
Temperature



Proper Thermal
Stability



Proper Acid
Resistance



Good Thermal
Shock Resistance

Application:

Clay bricks are divided by use and are mainly divided into clay refractory bricks for blast furnaces, clay refractory bricks for hot blast furnaces, and large clay refractory bricks for coke ovens and glass kilns.

Technical Data:

Item		PN-42	PN-40	PN-35	PN-30
Al ₂ O ₃ , %	≥	42	40	35	30
Fe ₂ O ₃ , %	≤	2.0	/	/	/
Apparent Porosity, %	≤	20	24	26	23
Cold Crushing Strength, MPa	≥	45	35	30	30
0.2MPa Refractoriness Under Load, °C	≥	1400	1350	1320	1300
Permanent Linear Change, %		1400°C*2h -0.4~0.1	1350°C*2h -0.4~0.1	1300°C*2h -0.4~0.1	1300°C*2h -0.4~0.1



High Working
Temperature



Good Thermal
Stability



High Cold
Crushing Strength



Strong Resistance on
Chemical Corrosion

Application:

Corundum brick is mainly used in iron-making blast furnaces and hot blast furnaces, steel-making furnace external refining furnaces, sliding water heaters, glass melting furnaces and petrochemical industrial furnaces.

Technical Data:

Item		GYZ-99	GYZ-90	GYZ-80
Al ₂ O ₃ , %	≥	99	90	80
SiO ₂ , %	≤	0.2	8	18
Fe ₂ O ₃ , %	≤	0.2	0.2	0.3
Bulk Density, g/cm ³	≥	3.2	3	2.8
Apparent Porosity, %	≤	19	18	18
Cold Crushing Strength, MPa	≥	100	100	100
0.2MPa Refractoriness Underload, °C	≥	1700	1700	1700

Mullite Brick



High Working
Temperature



Excellent Thermal
Shock Resistance



Great Wear
Resistance



Good Erosion and
Corrosion Resistance

Application:

Mullite brick is mainly used in hot blast furnace tops, blast furnace shafts and bottoms, glass melting furnace regenerators, ceramic sintering kilns, dead-end furnace linings in petroleum cracking systems, etc.

Technical Data:

Item		MLS-75	MLS-70
Al ₂ O ₃ , %	≥	75	70
SiO ₂ , %	≤	23	25
Fe ₂ O ₃ , %	≤	0.4	0.4
Bulk Density, g/cm ³	≥	2.7	2.6
Apparent Porosity, %	≤	18	18
Cold Crushing Strength, MPa	≥	100	100
0.2MPa Refractoriness Under Load, °C	≥	1680	1680

Chrome Corundum Brick



High Working
Temperature



Good Thermal
Shock Resistance



Great Wear
Resistance



Good Erosion and
Corrosion Resistance

Application:

Chrome corundum brick can be used as glass kiln lining, brushed glass flow hole cover brick and used in molten iron pretreatment device, garbage incinerator, coal water slurry pressurized gasification furnace backing, etc.

Technical Data:

Item/Grade		GGZ-30	GGZ-20	GGZ-12	GGZ-5
Cr ₂ O ₃ , %	≥	30	20	12	5
Fe ₂ O ₃ , %	≤	0.3	0.3	0.3	0.3
Al ₂ O ₃ , %	≥	68	76	80	85
Apparent Porosity, %	≤	18	18	18	18
Bulk Density, g/cm ³	≥	3.5	3.4	3.2	3.1
Cold Crushing Strength,MPa	≥	100	100	100	100

Sillimanite Brick



High Working
Temperature



Good Thermal
Stability



Great Wear
Resistance



Excellent Thermal
Shock Resistance

Application:

Sillimanite refractory materials are widely used in glass kilns, blast furnaces, ceramics, etc. in metallurgy, chemical industry, building materials and other industries.

Technical Data:

Item		GXS-65	GXS-60
Al ₂ O ₃ , %	≥	65	60
SiO ₂ , %	≤	32	37
Fe ₂ O ₃ , %	≤	0.5	1
Bulk Density, g/cm ³	≥	2.5	2.3
Apparent Porosity, %	≤	18	19
Cold Crushing Strength, Mpa	≥	80	80
0.2MPa Refractoriness Underload, °C	≥	1650	1600



High Working
Temperature



Good Thermal
Shock Resistance



Great Wear
Resistance



Excellent Erosion and
Corrosion Resistance

Application:

AZS brick is used as refractory materials for high temperature and erosion resistant kilns such as glass industrial pool kilns, glass electric kilns, slides in the steel industry, and kilns in the soda ash industry.

Technical Data:

Item	KR-AZS41	KR-AZS36	KR-AZS33
SiO ₂ , %	12	13	15
Al ₂ O ₃ , %	The Remainder	The Remainder	The Remainder
ZrO ₂ , %	41	36.5	33.5
Fe ₂ O ₃ +TiO ₂ +CaO+MgO+Na ₂ O+K ₂ O, %	≤2.0	≤2.0	≤2.0
Bulk Density, g/cm ³	4.05	3.9	3.8
Apparent Porosity, %	0.6	0.8	0.7
Initial Precipitation Temperature of Vitreous Phase, °C	1400	1400	1400
Vitreous Phase Exudation, % (1500°C×4h)	1.5	2.3	2.0
Anti-molten Glass Erosion Speed Under Static Condition, mm/24h (1500°C × 36h, ordinary soda lime glass)	1.2	1.3	1.4
Bubble Release Rate, % (1300°C X 10h, ordinary soda lime glass)	0.6	1.0	1.2

Andalusite Brick



High Working
Temperature



Good Thermal
Shock Resistance



Good Thermal
Stability



Good Erosion and
Corrosion Resistance

Application:

Andalusite bricks with excellent performance can fully meet the requirements for use in different parts of blast furnaces and hot blast stoves and in different working environments.

Technical Data:

Item		RH-155	RH-150	RH-145	RH-140	RH-135	RH-130
Al ₂ O ₃ , %	≥	69	65	61	57	53	49
Fe ₂ O ₃ , %	≤	1	1	1.2	1.2	1.5	1.5
TiO ₂ , %	≤	0.5	0.5	0.5	0.6	0.6	0.6
Apparent Porosity, %	≤	20	20	20	20	20	20
Bulk Density, g/cm ³		2.55~2.70	2.50~2.65	2.45~2.60	2.40~2.55	2.35~2.50	2.30~2.45
Cold Crushing Strength, MPa		55	55	50	50	40	40
0.2MPa Refractoriness Under Load, °C	≥	1700	1700	1650	1600	1520	1450
Permanent Line Change, %		1500°C×2h			1450°C×2h		



High Working Temperature



Strong Resistance to Alkaline Slag



High Thermal Conductivity



High Softening Temperature Under Load

Application:

Magnesia brick is mainly used in alkaline open-hearth furnaces, electric furnace bottoms and furnace walls for steelmaking.

Technical Data:

Item		M-98	M-97A	M-97B	M-95	M-91
MgO, %	≥	97.5	97.0	96.5	95.0	91.0
SiO ₂ , %	≤	1.00	1.20	1.50	2.00	/
CaO, %	≤	/	/	/	2.00	3.00
Apparent Porosity, %	≤	16	16	18	16	18
Bulk Density, g/cm ³	≥	3.00	3.00		2.95	2.90
Cold Crushing Strength, MPa	≥	60	60		60	60
0.2MPa Refractoriness Under Load, °C	≥	1700	1700		1650	1560
Permanent Linear Change, %		1650°C*2h -0.2-0	1650°C*2h -0.2-0		1600°C*2h -0.3-0	1600°C*2h -0.5-0

Magnesia Chrome Brick



High Working
Temperature



High Temperature
Strength



Strong Resistance to Alkaline
Slag Corrosion to Alkali Erosion



Excellent Thermal
Stability

Application:

Magnesia chrome brick is mainly used in the metallurgical industry, such as constructing open-hearth furnace tops, electric furnace tops, external refining furnaces and various alkali-resistant non-ferrous metal smelting furnaces.

Technical Data:

Item		MGe-16A	MGe-16B	MGe-12A	MGe-12B	MGe-8A	MGe-8B
MgO ,%	≥	50	45	60	55	65	60
Cr ₂ O ₃ ,%	≥	16	16	12	12	8	8
Apparent Porosity ,%	≤	19	22	19	21	19	21
Cold Crushing Strength, MPa	≥	35	25	35	30	35	30
0.2MPa Refractoriness Under Load, °C	≥	1650	1550	1650	1550	1650	1530

Magnesia Carbon Brick



High Working
Temperature



Good Thermal
Shock Resistance



Strong Slag
Resistance



Low Creep Rate in
High Temperature

Application:

Magnesia carbon bricks are mainly used in the lining of converters, AC electric arc furnaces, DC electric arc furnaces, and slag lines of ladles in the steelmaking industry.

Technical Data:

Item		MT-8A	MT-8B	MT-10A	MT-10B	MT-12A	MT-12B	MT-14A	MT-14B	MT-16A	MT-16B	MT-18A	MT-18B
MgO, %	≥	82	81	80	79	78	77	76	74	74	72	72	70
C, %	≥	8	8	10	10	12	12	14	14	16	16	18	18
Apparent Porosity, %	≤	4.5	5.0	4.0	4.5	4.0	4.0	3.5	3.5	3.5	3.5	3.0	3.5
Bulk Density, g/cm ³	≥	3.05	3.00	3.02	2.97	2.97	2.94	2.95	2.90	2.92	2.87	2.89	2.84
Cold Crushing Strength, MPa	≥	45	45	40	40	40	35	38	35	35	35	35	30

Magnesia Alumina Spinel Brick



Good Thermal Stability



Strong Resistance to Erosion



Lower Thermal Conductivity



Good Resistance to Peeling

Applications:

Mainly used in non-ferrous metal smelting furnaces, such as steel nickel furnaces and aluminum smelting furnace linings, electric furnace covers, steel drum linings, steel refining vacuum treatment equipment linings, high-temperature belt linings in cement calcination kilns, steel storage chambers in open hearth furnaces, and lattice bricks in glass furnace heating chambers.

Technical Data:

Item		Index
MgO ,%	≥	80
Al ₂ O ₃ ,%	≥	10
Apparent Porosity ,%	≤	17
Bulk Density ,g/cm ³	≥	2.9
Cold Crushing Strength ,Mpa	≥	50
High-temperature Bending Strength (1350°C*0.5h), MPa	≥	3.5
Thermal Shock Resistances (1100°C , Water Cooling), Cycle	≥	12

Magnesia Iron Spinel Brick



High Working
Temperature



Good Thermal
Shock Resistance



High Compressive
Strength



Strong Resistance to
Erosion and Permeability

Application:

Magnesia iron spinel brick is an ideal chromium free alkaline refractory material for cement rotary kiln firing.

Technical Data:

Item		MFe-85A	MFe-85B
MgO ,%	≥	85	85
Al ₂ O ₃ ,%	≥	3-5	3-5
Fe ₂ O ₃ ,%	≥	4-6	4-6
Bulk Density ,g/cm ³	≥	2.95	2.90
Cold Crushing Strength ,Mpa	≥	55	50
0.2MPa Refractoriness Under Load,°C	≥	1650	1600



High Working
Temperature



Good Thermal
Stability



Good Resistance to
Acid Slag Corrosion



High Refractoriness
Under Load

Application:

Silica brick is mainly used as structural materials for coke ovens, glass furnaces, acid steelmaking furnaces and other thermal equipment.

Technical Data:

Item/Grade		GZ-94	GZ-95	GZ-96
SiO ₂ , %	≥	94	95	96
Fe ₂ O ₃ , %	≤	1.4	1.2	1.0
Apparent Porosity, %	≤	22	22	22
Bulk Density, g/cm ³	≤	2.35	2.35	2.34
Cold Crushing Strength, MPa	≥	30	35	40
0.2MPa Refractoriness Under Load, °C	≥	1650	1660	1670

Silicon Carbide Brick



Good Thermal
Shock Stability



High Working
Temperature



Great Wear
Resistance



Low Thermal
Expansion Coefficient

Application:

Silicon carbide brick is mainly used for making non-ferrous metallurgical retorts, aluminum casting molds, electric furnace linings, aluminum electrolytic cell linings, ceramic kiln furniture and heat exchangers, etc.

Technical Data:

Item/Grade		Index
SiC, %	≥	85
Fe ₂ O ₃ , %	≤	0.5
Apparent Porosity, %	≤	16
0.2MPa Refractoriness Under Load, °C	≥	1750
Bulk Density, g/cm ³	≥	2.6
Cold Crushing Strength, MPa	≥	80
Modulus of Rupture, MPa	≥	40

Chromic Oxide Brick



High Working
Temperature



Good Thermal
Shock Resistance



Great Wear
Resistance



Good Corrosion
Resistance

Application:

High chromium bricks are mainly used for lining and reinforcement of different blast furnaces, kilns, electric furnaces, boilers, etc. in the metallurgical industry, cement industry, chemical industry, non-ferrous metal and glass industries.

Technical Data:

Item		GGZ-75	GGZ-85	GGZ-90	GGZ-95
Cr ₂ O ₃ , %	≥	75	85	90	95
Cr ₂ O ₃ +Al ₂ O ₃ +ZrO ₂ , %	≥	98	98	98	98
SiO ₂ , %	≤	0.2	0.2	0.2	0.2
Fe ₂ O ₃ , %	≥	0.3	0.3	0.3	0.3
K ₂ O+Na ₂ O, %	≥	0.2	0.2	0.2	0.2
Bulk Density, g/cm ³	≥	3.9	4.2	4.22	4.25
Apparent Porosity, %	≤	18	18	16	16
Cold Crushing Strength, MPa	≥	120	120	120	120

Alumina Silicon Carbide Brick



High Working
Temperature



Good Thermal
Shock Resistance



Great Wear
Resistance



High Temperature
Compressive Strength

Application:

Alumina silicon carbide brick can be used as the supporting material for the lining of wire quenching heating furnace and the corundum silicon carbide slide rail brick for steel rolling heating furnace. It can also be used as kiln furniture for ceramic firing.

Technical Data:

Item		Gm1650	Gm1600	Gm1550
Al ₂ O ₃ , %	≥	65	63	60
Bulk Density, g/cm ³	≥	2.65	2.60	2.55
Apparent Porosity, %	≤	17	17	19
Cold Crushing Strength, MPa	≥	85	90	90
0.2MPa Refractoriness Under Load, °C	≥	1650	1600	1550
Thermal Shock Resistances (1100°C, Water Cooling), Cycle	≥	10	10	12
Resistance to Abrasion at Ambient Temperature, cm ³	≤	5	5	5

Silicon Nitride Bonded Silicon Carbide Brick



High Working
Temperature



Good Thermal
Shock Resistance



Great Wear
Resistance



Good Alkali
Corrosion Resistance

Application:

Silicon nitride bonded silicon carbide brick is mainly used as the lining of the lower furnace body of the blast furnace, the lining of the aluminum reduction electrolytic cell, ceramic kiln furniture, and the blast furnace tuyere water cooling pipe sleeve.

Technical Data:

Item		Index
SiC, %	≥	72
Si ₃ N ₄ , %	≥	21
Fe ₂ O ₃ , %	≤	0.5
Apparent Porosity, %	≤	18
Bulk Density, g/cm ³	≥	2.65
Cold Crushing Strength, MPa	≥	150
Modulus of Rupture, MPa	≥	40

Acid Proof Brick



Low Water
Absorption



Chemical Corrosion
Resistance



Mechanical
Strength

Application:

Acid Proof/Resistant Brick is anti corrosive and acid resistant material, which uses quartz, feldspar and clay as main raw materials and is fired by high temperature. Acid proof brick main component is SiO₂. When SiO₂ is burned in high temperature, there are lots of Polychlorite andalusite which can resist acids strongly. Acid resistant brick also can resist alkali at room temperature because of high density, low water absorption. But it does not resist alkali at high temperature.

Technical Data:

Item		Index
Acid Resistance, %	≥	99.8
Bulk Density, g/cm ³		2.31-2.4
Water Absorption, %	≤	2
Bending Strength, Mpa	≥	58.8
Compressive Strength, Mpa		120
Thermal Shock Resistance, Cycles (130°C-20°C)	≥	1

Refractory Balls



High Fire
Resistance



Customized
Production Available



Great Wear
Resistance



Good Alkali
Corrosion Resistance

Application:

According to the material, there are high alumina refractory balls, corundum refractory balls, silica refractory balls, magnesium refractory balls, mullite refractory balls, etc. Refractory balls can be used in high temperature conversion furnaces, conversion furnaces, hot air furnaces of fertilizer plants, etc.

Technical Data:

Item	High Alumina	Low Creep	Mullite	Corundum
Al ₂ O ₃ , %	65	70	75	95
Refractoriness under load, °C	1450	1460	1530	1650
Apparent Porosity, %	25	23	22	18
Bulk Density, g/cm ³	2.3	2.4	2.5	3.1
Cold crushing strength, Mpa	13	14	32	36
Thermal shock resistance (1100°C water cooling), cycle ≥	≥15	≥10	≥20	≥7
Refractoriness, °C	1710	1750	1800	1800



Insulation Brick

Serving the Global High-temperature Industry

High Alumina Insulation Brick



Low Volume
Density



Lower Thermal
Conductivity



Excellent Heat
Insulation



Significant Energy
Saving Effect

Application:

Used in insulation layer of industrial kilns like ceramic tunnel kilns, roller kilns, shuttle kilns, wall kilns, as well as other locations without strong erosion of high-temperature molten materials.

Technical Data:

Item/Grade		Lg140 -1.2	Lg140 -1.0	Lg140 -0.8L
Al ₂ O ₃ , %	≥	48		
Fe ₂ O ₃ , %	≤	2.0		
Bulk Density, g/cm ³	≤	1.2	1	0.8
Cold Crushing Strength, MPa	≥	4.5	3.5	2.5
Permanent Linear Change, % (T/°C*12h)	Test Temperature T/°C	1400		
Thermal Conductivity Coefficient , W/(m·K) Average Temperature (350±25°C)	≤	0.55	0.50	0.35

Fire Clay Insulation Brick



Lower Thermal
Conductivity



High Porosity,
Low Volume Density



Good Thermal
Shock Resistance



Good Heat
Insulating Effect

Application:

Widely used as the insulation layer of thermal equipment such as ignition kilns, flues, refining devices, heating devices, gas furnaces and pipelines, soaking furnaces, annealing furnaces, reaction chambers, etc.

Technical Data:

Item/Grade		NG135 -1.3	NG135 -1.2	NG130 -1.0	NG125 -0.8	NG120 -0.6
Bulk Density, g/cm ³	≥	1.3	1.2	1.0	0.8	0.6
Cold Crushing Strength, MPa	≤	5	4.5	3.5	2.5	1.3
	/	4.5	4.0	3.0	2.0	1.0
Permanent Linear Change, %	Experimental Conditions	1350°C*12h		1300°C* 12h	1250°C* 12h	1200°C* 12h
	Xmin~Xmax	-2-1				
Thermal Conductivity Coefficient , W/(m·K) ≤ Average Temperature (350±25°C)	≤	0.55	0.50	0.40	0.35	0.25

Mullite Insulation Brick



Lightweight and
High Strength



Good Thermal
Insulation Effect



Accurate and
Customized Dimension



Lower Thermal
Conductivity



Good Thermal
Shock Resistance

Application:

Suitable for the refractory lining and backing insulation layer of pyrolysis furnaces, hot blast furnaces, ceramic roller kilns, electric porcelain drawer kilns and various industrial resistance furnaces.

Technical Data:

Item/Grade		KR-23			
Type		A	B	C	D
Al ₂ O ₃ , %	≥	42	42	45	48
Fe ₂ O ₃ , %	≤	1.2	1.2	1	1
Bulk Density, g/cm ³		0.55	0.6	0.8	1.0
Reheating Linear Change, %	≤	-0.5	-0.55	-0.4	-0.3
		1230°C x12h	1260°C x12h	1300°C x12h	1300°C x12h
Cold Compression Strength, MPa	≥	1.2	1.5	2.3	3
Thermal conductivity 350 °C , W/(m·K)		0.17	0.19	0.24	0.31

Mullite Insulation Brick

Item/Grade		KR-26			
Type		A	B	C	D
Al ₂ O ₃ , %	≥	54	55	56	56
Fe ₂ O ₃ , %	≤	0.9	0.9	1	1
Bulk Density, g/cm ³		0.7	0.8	0.9	1.0
Reheating Linear Change, %	≤	-1	-0.65	-0.5	-0.5
		1400°C x12h			
Cold Compression Strength, MPa	≥	2	2.3	2.8	3.2
Thermal conductivity 350 °C , W/(m·K)		0.21	0.25	0.3	0.32

Item/Grade		KR-28			KR-30	
Type		A	B	C	A	B
Al ₂ O ₃ , %	≥	64	65	66	72	72
Fe ₂ O ₃ , %	≤	0.75	0.65	0.65	0.55	0.55
Bulk Density, g/cm ³		0.8	0.9	1.0	1.0	1.1
Reheating Linear Change, %	≤	-1	-0.8	-0.7	-0.9	-0.7
		1500°C x12h			1600°C x12h	
Cold Compression Strength, MPa	≥	2.3	2.8	3.3	3.0	3.5
Thermal conductivity 350 °C , W/(m·K)		0.28	0.32	0.34	0.4	0.43

Alumina Bubble Brick



High Crushing
Strength



High Working
Temperature



Good Thermal
Shock Resistance



Good Thermal
Stability



Lightweight and
Energy-saving



Lower Thermal
Conductivity

Application:

Commonly used as the working layer and heat insulation layer of high temperature kilns in petrochemical industry gasifiers, carbon black reactors, metallurgical induction furnaces and other industries.

Technical Data:

Item/Grade		85	90	99
Max Service Temperature, °C		1680	1700	1800
Al ₂ O ₃ , %	≥	85	90	99
SiO ₂ , %	≤	13	8	0.2
Fe ₂ O ₃ , %	≤	0.2	0.2	0.2
Bulk Density, g/cm ³		1.4-1.7	1.4-1.7	1.4-1.7
Cold Crushing Strength, Mpa	≥	12	10	9
Refractoriness Under Load(0.1MPa.0.6%), °C	≥	1650	1700	1700
Reheating Linear Change(1600°Cx3h), %		±0.3	±0.3	±0.3
Thermal Expansion Coefficient (Room temp-1300°C)		~7.8	~8.0	~8.6
Thermal Conductivity Coefficient (1800°C), W/(m·K)	≤	0.8	1.3	1.5

Silica Insulation Brick



Great Thermal
Mechanical Strength



Strong Acid Slag
Erosion Resistance



Good Thermal
Stability



Lower Thermal
Conductivity



Lightweight and
Energy-saving

Application:

Commonly used in coke oven insulation layers, glass kiln vaults, hot blast furnace walls and domes. It does not directly contact high-temperature molten materials and alkaline gas working layers.

Technical Data:

Item/Grade		GGR-1.00	GGR-1.10	GGR-1.15	GGR-1.20
SiO ₂ , %	≥	91	91	91	91
Bulk Density, g/cm ³	≥	1.00	1.10	1.15	1.20
Cold Crushing Strength, MPa	≥	2.0	3.0	5.0	5.0
Permanent Linear Change On Reheating, °C	≤	/	/	0.5	0.5
0.1MPa Refractoriness Underload, °C	≥1500°C, 2h	0.5	0.5	/	/
	≥1450°C, 2h	1400	1420	1500	1520
Thermal Conductivity Coefficient , W/(m·K) Average Temperature (350±10°C)	≤	0.55	0.60	0.65	0.70



Monolithic Refractory

Serving the Global High-temperature Industry

Calcium Aluminate Cement



High Heat Resistance



Environmentally Friendly



Rapid Hardening



Easy Construction

Application:

In high temperature industries, refractory cement for sale is an important and popular product. Because it has wide applications in manufacturing monolithic refractory products and directly using in kilns.

CA-50 series Technical Data:

Item		A600	A700	A900
SiO ₂ , %	≤	7.8	7.5	5.5
Al ₂ O ₃ , %	≥	50.0	51.0	53.5
Fe ₂ O ₃ , %	≤	2.5	2.5	2.5
R ₂ O, %	≤	0.4	0.4	0.4
S, %	≤	0.1	0.1	0.1
Cl, %	≤	0.1	0.1	0.1
325M Residue on Sieve, %	≤	15	12	8
S, m ² /kg	≥	300	320	350
Initial Setting Time, min	≥	45	60	90
Final Setting Time, h	≤	6	6	6
Flexural Strength, Mpa	1d	≥ 6.0	≥ 6.5	≥ 8.0
	3d	≥ 7.0	≥ 7.5	≥ 10.0
Compressive Strength, Mpa	1d	≥ 45	≥ 55	≥ 72
	3d	≥ 55	≥ 65	≥ 82

Calcium Aluminate Cement



CA-70 Technical Data:

Item		CA70
Properties Determined according to GB201-2000		
SiO ₂ , %		≤0.5
Al ₂ O ₃ , %		68.5-70.5
Fe ₂ O ₃ , %		≤0.2
CaO, %		28.5-30.5
MgO, %		≤0.4
R ₂ O, %		≤0.4
Fineness	D50, μm	11-14
	-45μm, %	≤8.0
Setting Time, min	Initial Setting, IS	120-180
	Final Setting, FS	150-240
Flexural Strength, Mpa	1d	7.5-10.0
	3d	10.0-12.0
Compressive Strength, Mpa	1d	40-50
	3d	45-55
Cement Properties in Testing Castables		
Setting Time, min	20°C	60-90
	35°C	30-50
Vibration Flow, mm (20°C)	Initial Flow	265-275
	10min	255-265
	30min	235-245
	60min	230-240
Flexural Strength, Mpa	20°C×24h	4.5-5.5
	110°C×24h	10.0-11.5
	1100°C×4h	12.0-14.0
Compressive Strength, Mpa	20°C×24h	35-45
	110°C×24h	85-95
	1100°C×4h	100-120
Linear Change, %	1100°C×4h	≤-0.25

CA-80 Technical Data:

Item		CA80
Properties Determined according to GB201-2000		
SiO ₂ , %		≤0.5
Al ₂ O ₃ , %		78.0-81.0
Fe ₂ O ₃ , %		≤0.2
CaO, %		17.5-20.5
MgO, %		≤0.4
R ₂ O, %		≤0.4
Fineness	D50, μm	5-8
	-45μm, %	≤5.0
Setting Time, min	Initial Setting, IS	30-90
	Final Setting, FS	90-180
Flexural Strength, Mpa	1d	5.0-7.5
	3d	6.0-8.5
Compressive Strength, Mpa	1d	30-40
	3d	40-50
Cement Properties in Testing Castables		
Setting Time, min	20°C	90-120
	35°C	40-60
Vibration Flow, mm (20°C)	Initial Flow	255-265
	10min	250-260
	30min	240-250
	60min	235-245
Flexural Strength, Mpa	20°C×24h	3.0-4.0
	110°C×24h	8.0-9.0
	1100°C×4h	11.0-13.0
Compressive Strength, Mpa	20°C×24h	25-35
	110°C×24h	60-70
	1100°C×4h	100-120
Linear Change, %	1100°C×4h	≤-0.15

CA50 Fused Cement



High Heat Resistance



Environmentally Friendly



Rapid Hardening



Easy Construction

Application:

In high temperature industries, refractory cement for sale is an important and popular product. Because it has wide applications in manufacturing monolithic refractory products and directly using in kilns.

CA50 series Technical Data:

Item			CA50
Al ₂ O ₃ , %		≥	52
SiO ₂ , %		≤	8
Fe ₂ O ₃ , %		≤	2.5
CaO, %		≤	32
R ₂ O, %		≤	0.4
Flexural Strength, Mpa	1d	/	6
	3d	/	7
Compressive Strength, Mpa	1d	/	45
	3d	/	55
Initial Setting Time, min		>	30
Final Setting Time, h		<	360
Packing		/	25kgs bag with jumbag

High Alumina Castable



High-Temperature
Resistance



Impact
Resistance



Excellent Chemical
Resistance



Great Wear
Resistance

Application:

The appearance of high alumina refractory castables is powdery and sandy, which belongs to unshaped refractory materials. It is made of high-alumina raw materials as aggregate, powder, and binder to form a uniform mixture that can be easily molded and installed in various high-temperature applications.

Technical Data:

Item		G-15B	G-15	G-16
Maximum service temperature, °C		1400	1500	1600
Al ₂ O ₃ , %		≥65	≥75	≥78
SiO ₂ , %		25	20	15
B.D After Drying at 110°C, g/cm ³		2.50	2.60	2.65
Cold Bending Strength, Mpa	110°C, X24h	8	8	10
	1100°C, X3h	8	8	10
Cold Compressive Strength, Mpa	110°C, X24h	70	80	100
	1100°C, X3h	70	80	100
Linear Change Rate After Burning PLC, %	1100°C, X3h	±0.3	±0.3	±0.3
Construction Reference Water Consumption, %		6-7	6-7	5.5-6.5

Alumina Magnesium Refractory Castable



High-Temperature
Resistance



Customized
Production Available



Great Wear
Resistance



Strong Resistance to
Erosion and Permeability

Application:

Aluminum-magnesium refractory castable is made of fused magnesia, sintered magnesia, fused or sintered magnesia alumina spinel, fused alumina powder, high alumina powder, etc. According to the different quality of raw materials used, it can be divided into: ordinary aluminum-magnesium castable, ordinary aluminum-spinel castable, alumina-magnesia castable, alumina-spinel castable, corundum spinel castable.

Technical Data:

Item		AMC-70	AMC-80	AMC-85	AMC-95
Al ₂ O ₃ +Mgo, %	≥	70	80	85	95
Bulk density(110°C×24h), g/cm ³	≥	2.6	2.8	2.85	2.95
Cold Bending Strength, Mpa	110°C×24h, ≥	20	20	20	20
	1000°C×3h, ≥	30	30	30	30
	Test temp×3h, ≥	50(1500°C)	50(1550°C)	60(1550°C)	60(1600°C)
Heating permanent line change, %	Test temp×3h	-0.5~+1.5 (1500°C)	-0.5~+1.8 (1550°C)	-0.2~+1.8 (1550°C)	0~+1.0 (1600°C)

Mullite Castable



Low Thermal
Expansion



Environmentally
Friendly



Short Bake Time,
No cracking



Good Wear
Resistance

Application:

Mullite refractory castable is an unshaped refractory material composed of porous mullite aggregate, binder, and various additives. Mullite is a high-quality refractory raw material, and this type of mineral is relatively rare.

Technical Data:

Item		ML-70	ML-80	ML-90
Maximum service temperature, °C		1600	1600	1750
Al ₂ O ₃ +SiO ₂ , %		≥70	≥80	≥90
B.D After Drying at 110°C, g/cm ³		2.70	2.80	2.90
Cold Bending Strength, Mpa	110°C, X24h	10	12	15
Cold Compressive Strength, Mpa	110°C, X24h	100	100	150
Linear Change Rate After Burning PLC, %	1100°C, X3h	±0.3	±0.3	±0.3
	1500°C, X3h	±0.5	±0.5	±0.5
Construction Reference Water Consumption, %		4.5-5	4.5-5	4.5-5

Corundum Castable



Corrosion
Resistance



High-Pressure
Strength



Good Volume
Stability



Excellent Mechanical
Strength

Application:

Corundum refractory castable is an unshaped refractory material formed by mixing corundum and super bauxite clinker as aggregate and powder, plus some pure calcium aluminate cement, as well as binders and additives.

Technical Data:

Item		G-17	G-18S	G-18
Maximum service temperature, °C		1650	1650	1700
Al ₂ O ₃ , %		≥85	≥90	≥93
SiO ₂ , %		8	4	2
B.D After Drying at 110°C, g/cm ³		2.90	3.00	3.00
Cold Bending Strength, Mpa	110°C, X24h	9	12	14
Cold Compressive Strength, Mpa	110°C, X24h	80	90	100
Linear Change Rate After Burning PLC, %	1100°C, X3h	±0.3	±0.3	±0.2
	1500°C, X3h	±0.6	±0.6	±0.5
Construction Reference Water Consumption, %		4.5-5.5	5-6	5.5-6.5

Silicon Carbide Castable



High-Temperature
Resistance



Good resistance
to erosion



Abrasiveness
resistance



High
strength

Application:

Silicon Carbide Castable are made from high-grade silicon carbide and industrial silicon powder as raw materials. Which is one of the unshaped refractory materials. It is one of the new type refractory material of don't need calcination.

Technical Data:

Item		CG-13	CG-13H	CG-17
Maximum service temperature, °C		1300	1400	1600
Al ₂ O ₃ , %		≤35	≤25	75
SiC, %		≥30 SiC	≥50 SiC	/
B.D After Drying at 110°C, g/cm ³		2.40	2.50	2.70
Cold Bending Strength, Mpa	110°C, X24h	9	8	10
	1100°C, X3h	9	9	11
Cold Compressive Strength, Mpa	110°C, X24h	80	70	100
	1100°C, X3h	80	80	110
Linear Change Rate After Burning PLC, %	1100°C, X3h	±0.3	±0.4	±0.4
Construction Reference Water Consumption, %		6-7	6-7	5-6

Lightweight Insulating Castable



Lightweight
easier to handle



Low Thermal
Expansion



Good Thermal
Shock Resistance

Application:

Lightweight thermal insulation castables are composed of refractory lightweight aggregate and powder, as well as binders, additives, etc. s

Technical Data:

Item		QG-1.0	QG-0.8	QG-0.6
Maximum service temperature, °C		1250	1200	1150
Al ₂ O ₃ , %		43	40	36
SiO ₂ , %		36	37	30
Bulk Density, g/cm ³		1.0	0.8	0.5
Thermal Conductivity Coefficient, W/(m·K)	350°C	≤0.3	≤0.25	≤0.15
	700°C	≤0.4	≤0.30	≤0.20
Cold Crushing Strength, MPa	110°C*24h	≥4.0	≥2.0	≥1.5
	1000°C*3h	≥5.5	≥2.0	≥1.5
Permanent Linear Change (1000°C*3h)/%		-1.0	-1.0	-1.5

Wear-resistant Castable



Good thermal shock resistance.



Excellent corrosion resistance.



High-Pressure Strength



Good volume stability.

Application:

Wear resistant castable is a kind of refractory castable that has a high wear resistance and a high abrasion resistance. This product is made of calcium aluminate cement and refractory powder with a high alumina content or other hard materials as the main component.

Technical Data:

Item		GQ-75	GQ-85	GQ-90
Al ₂ O ₃ , %		75	85	90
B.D After Drying at 110°C, g/cm ³		2.75	2.90	3.00
Cold Bending Strength, Mpa	110°C, X24h	11	15	15
	1100°C, X3h	12	16	17
Cold Compressive Strength, Mpa	110°C, X24h	120	140	150
	1100°C, X3h	120	120	120
Linear Change Rate After Burning PLC, %	1100°C, X3h	±0.4	±0.3	±0.2
Construction Reference Water Consumption, %		5.5-6.5	4.5-6.5	4.5-6.5

Low Cement Castable



High Resistance
to Oxidation



Environmentally
Friendly



High Resistance
to Oxidation



Excellent Wear
Resistance

Application:

Low cement castable refers to the new type of castable containing little combined dosage. The cement dosage of refractory cement castables is generally 15% to 20%, while the cement dosage of low cement castables is about 5%, and some are even reduced to 1% to 2%. The purpose of reducing the cement dosage is to improve the refractory performance of the castables.

Technical Data:

Item		Clay	High Alumina	Corundum
Al ₂ O ₃ , %	≥	45	75	92
SiO ₂ , %	≥	50	12	5
CaO		1.8	1.5	1.5
Bulk Density, g/cm ³		2.3	2.6	3
Cold Crushing Strength, Mpa		72	75	85
Permanent Linear Change, %	±	0.3	0.5	0.5
Max Service Temperature, °C		1450	1600	1700
Water Needed, %		6.0-6.5	6.0-6.5	4.0-5.0

Ceramic Fiber Products

Serving the Global High-temperature Industry



Ceramic Fiber Blanket



High-Temperature
Stability



Excellent Thermal
Insulation Properties



Free of Binders and
Corrosive Substances



Excellent Sound
Absorption

Application:

The ceramic fiber blanket is white in color, regular in size, integrated with heat insulation, and heat preservation functions, and does not contain any additives.

Technical Data:

Item	KR 1050 C-RB	KR 1260 ST-RB	KR 1260 HP-RB	KR 1350 HA-RB	KR 1400 LZ-RB	KR 1430 HZ-RB	KR 1500 CR-RB	KR 1600 PCF-RB
Max.Service Temperature, °C	1050	1260	1260	1350	1400	1430	1500	1600
Density, kg/m ³	96 / 128 / 140 / 160							130-170
Liner Shrinkage, % (24h, 128kg/m ³)	≤4.0 950°C	≤4.0 1050°C	≤4.0 1100°C	≤4.0 1200°C	≤4.0 1250°C	≤4.0 1350°C	≤4.0 1400°C	≤4.0 1500°C
Tensile Strength, Mpa	70	75	75	55	75	75	55	75
Thermal Conductivity Rate, W/(m·k) (128kg/m ³)	600°C	0.2	0.15	0.15	-	-	-	-
	800°C	0.29	0.22	0.21	0.21	0.21	0.21	0.19
	1000°C	-	0.31	0.30	0.31	0.31	0.31	0.28
Al ₂ O ₃ , %	≥38	≥42	≥45	52-55	≥37	≥37	≥37	≥70
Al ₂ O ₃ +SiO ₂ , %	≥97	≥98	≥98	≥98	≥92	≥83	≥93	≥99
ZrO ₂ , %	-	-	-	-	5-7	15-17	-	-
Cr ₂ O ₃ , %	-	-	-	-	-	-	3-5	-
Other	≤3.0	≤2.0	≤2.0	≤2.0	≤2.0	≤2.0	≤2.0	≤1.0
Recommended using temperature: In oxidizing or neutral atmosphere, 100-250°C lower than the maximum service temperature, In reductive atmosphere, 200-350°C lower than the maximum service temperature.								

Ceramic Fiber Board



Lightweight
High Strength.



High Compressive
Strength



Evenly Heated



Good Toughness

Application:

Ceramic fiber board is a kind of refractory material, usually composed of alumina and silicate, and it is also called an aluminum silicate board.

Technical Data:

Item	KR 1050 C-RBD	KR 1260 ST-RBD	KR 1260 HP-RBD	KR 1350 HA-RBD	KR 1430 LZ-RBD	KR 1600 HZ-RBD	KR 1700 CR-RBD	KR 1800 PCF-RBD
Max.Service Temperature, °C	1050	1260	1260	1350	1430	1600	1700	1800
Density, kg/m ³	220 / 250 / 280 / 300 / 320 / 350 / 380 / 400					400 / 450 / 500 / 550		
Liner Shrinkage, % (After burning 24h, 128kg/m ³)	≤3.0 950°C	≤3.0 1050°C	≤3.0 1100°C	≤3.0 1200°C	≤3.0 1300°C	≤1.0 1450°C	≤1.0 1550°C	≤1.0 1650°C
Modulus of rupture, Mpa	≥0.3	≥0.4	≥0.4	≥0.4	≥0.4	≥0.6	≥0.6	≥0.6
Loss on ignition, %	≤8.0					≤4.0		
Thermal Conductivity Rate, W/(m·k) (128kg/m ³)	600°C	0.12	0.12	0.12	0.12	-	-	-
	800°C	0.16	0.16	0.16	0.16	0.16	0.17	0.17
	1000°C	-	0.23	0.23	0.23	0.23	0.23	0.23
Al ₂ O ₃ , %	≥37	≥41	≥43	≥45	≥37	≥65	≥37	≥72
Al ₂ O ₃ +SiO ₂ , %	≥97	≥97	≥98	≥98	≥84	≥99	≥97	≥99
ZrO ₂ , %	-	-	-	-	≥11	-	-	-
Other	≤3.0	≤3.0	≤2.0	≤2.0	≤2.0	≤1.0	≤3.0	≤1.0
Recommended using temperature: In oxidizing or neutral atmosphere, 100-250°C lower than the maximum service temperature, In reductive atmosphere, 200-350°C lower than the maximum service temperature.								

Ceramic Fiber Cloth



Metal Erosion
Ability



Non-Toxic, Harmless,
And Odorless



Electrical Insulation
Properties



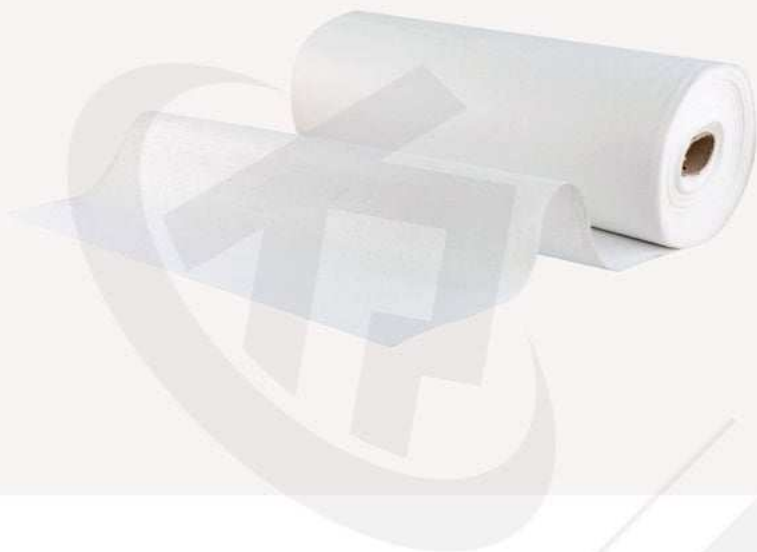
Acid and Alkali
Corrosion Resistance

Application:

Ceramic fiber cloth is a woven fabric made of ceramic fiber yarn. The main raw materials include alumina, silicate or borate, etc. It has excellent heat resistance and chemical stability.

Technical Data:

Item	Ceramic Fiber Reinforced By Glass Fiber	Ceramic Fiber Reinforced By Steel Wire
Max. Service Temperature, °C	650	1000
Organic Content, %	≤15	
Density, kg/m ³	500-600	
Ceramic Fiber Cloth	Width: 1000 / 1500mm, Thickness: 1.5 / 2 / 3 / 4 / 5 / 6 mm	
Ceramic Fiber Tape	Width: 10 -150mm, Thickness: 2 / 3 / 4 / 5 / 6 mm	
Aluminum Foil Fiber Cloth	Width: 1000 / 1500mm, Thickness: 1.5 / 2 / 3 / 4 / 5 / 6 mm	
Package	Cartons or bags	



Thermal Shock
Resistance



High-Temperature
Resistance



Electrical
Insulation



Environmental
Friendly

Application:

Ceramic fiber paper is a paper refractory product made of ceramic fibers, also called aluminum silicate fiber paper. Ceramic fiber paper is a high-temperature refractory material, usually made of inorganic oxide fibers,

Technical Data:

Item		KR 1260HP-RP	KR 1350HA-RP	KR 1430HZ-RP
Max.Service Temperature, °C		1260	1350	1430
Density, kg/m ³		190-210	190-210	190-210
Liner Shrinkage, % (After burning 24h)		≤3.5 1000°C	≤3.5 1100°C	≤3.5 1200°C
Organic Content			≤10	
Thermal Conductivity Rate, W/(m·k)	600°C	0.09	0.09	-
	800°C	0.14	0.14	0.13
	1000°C	0.2	0.2	0.18
Al ₂ O ₃ , %		≥43	≥46	≥37
Al ₂ O ₃ +SiO ₂ , %		≥98	≥98	≥84
ZrO ₂ , %		-	-	≥13
Other		≤2.0	≤2.0	≤2.0
Recommended using temperature: In oxidizing or neutral atmosphere, 100-250°C lower than the maximum service temperature, In reductive atmosphere, 200-350°C lower than the maximum service temperature.				

Ceramic Fiber Rope



High-Temperature
Stability



Chemical
Resistance



Efficient
Insulation



Sound
Insulation

Application:

Ceramic fiber rope is made of ceramic fiber spun yarn and is often used as heat insulation material. It is an excellent substitute for asbestos rope. Ceramic fiber rope can be divided into twisted rope, square rope, and round rope.

Technical Data:

Item	Ceramic Fiber Reinforced By Glass Fiber	Ceramic Fiber Reinforced By Steel Wire
Max. Service Temperature, °C	650	1000
Organic Content, %	≤15	
Density, kg/m ³	500-600	
Ceramic Fiber Twist Rope	Diameter: 5 / 6 / 8 / 10 / 12 / 14 / 16 / 18 / 20 / 25 / 30 / 35 / 40 / 50 mm	
Ceramic Fiber Round Rope	Diameter: 5 / 6 / 8 / 10 / 12 / 14 / 16 / 18 / 20 / 25 / 30 / 35 / 40 / 50 mm	
Ceramic Fiber Square Rope	Diameter: 6*6, 8*8, 10*10, 12*12, 15*15, 16*16, 18*18, 20*20, 25*25, 30*30, 35*35, 40*40, 45*45, 50*50, 60*60 mm	
Package	Cartons or bags	



Good Thermal Shock Resistance



Environmentally Friendly



Low Thermal Conductivity



Good Chemical Stability

Application:

Ceramic fiber cotton is made of high-purity silicon and aluminum raw materials using spinning or blowing processes. In addition, in the vacuum forming process, ceramic bulk fiber is the basis for ceramic fiber blankets, boards, papers and other products.

Technical Data:

Item	KR 1050 C-BF	KR 1260 ST-BF	KR 1260 HP-BF	KR 1350 HA-BF	KR 1400 LZ-BF	KR 1430 HZ-BF	KR 1500 CR-BF	KR 1600 PCF-BF
Max.Service Temperature, °C	1050	1260	1260	1350	1400	1430	1500	1600
Shot Content, % ($\theta \geq 0.212\text{mm}$)	≤ 22	≤ 22	≤ 20	≤ 20	≤ 18	≤ 18	≤ 20	≤ 3
Fiber Diameter, μm	3-5	2-4	3-5	2-4	3-5	3-5	3-5	3-6
Al ₂ O ₃ , %	≥ 38	≥ 42	≥ 45	52-55	≥ 37	≥ 37	≥ 37	≥ 70
Al ₂ O ₃ +SiO ₂ , %	≥ 97	≥ 98	≥ 98	≥ 98	≥ 92	≥ 83	≥ 93	≥ 99
ZrO ₂ , %	-	-	-	-	5-7	15-17	-	-
Cr ₂ O ₃	-	-	-	-	-	-	3-5	-
Other	≤ 2.0	≤ 2.0	≤ 2.0	≤ 2.0	≤ 2.0	≤ 2.0	≤ 2.0	≤ 1.0
Package	Packing in bags or cartons, 20kg/bag or 10kg/carton							
Recommended using temperature: In oxidizing or neutral atmosphere, 100-250°C lower than the maximum service temperature, In reductive atmosphere, 200-350°C lower than the maximum service temperature.								

Ceramic Fiber Module



Low Thermal
Conductivity



Shock
Resistance



Great Wear
Resistance



Easy
Installation

Application:

Ceramic fiber module uses advanced ceramic fiber technology to optimize the fiber fineness and structure to provide excellent thermal insulation performance and durability. It is made of ceramic fiber blankets that are folded or stacked and pressed into rectangular modules and employs non-exposed anchorage for economical installation and mechanical linkage.

Technical Data:

Item	KR 1050 C-RM	KR 1260 ST-RM	KR 1260 HP-RM	KR 1350 HA-RM	KR 1400 LZ-RM	KR 1430 HZ-RM	KR 1500 CR-RM	KR 1600 PCF-RM	
Max.Service Temperature, °C	1050	1260	1260	1350	1400	1430	1500	1600	
Liner Shrinkage Rate, % (24h, 200kg/m ³)	≤3.0 950°C	≤3.0 1000°C	≤3.0 1050°C	≤3.0 1200°C	≤3.0 1250°C	≤3.0 1300°C	≤3.0 1350°C	≤1.5 1450°C	
Density, kg/m ³	172 / 192 / 210 / 220 / 230 / 240								
Thermal Conductivity Rate, W/(m·k) (128kg/m ³)	600°C	0.20	0.16	0.16	0.16	0.16	0.15	0.15	-
	800°C	0.25	0.23	0.23	0.23	0.23	0.23	0.23	0.27
	1000°C	-	-	0.36	0.36	0.36	0.35	0.35	0.38
Al ₂ O ₃ , %	≥38	≥42	≥45	≥52	≥37	≥37	≥37	≥72	
Al ₂ O ₃ +SiO ₂ , %	≥97	≥97	≥98	≥98	≥92	≥83	≥93	≥99	
ZrO ₂ , %	-	-	-	-	5-7	15-17	-	-	
Cr ₂ O ₃ , %	-	-	-	-	-	-	3-5	-	
Other	≤3.0	≤3.0	≤2.0	≤2.0	≤2.0	≤2.0	≤2.0	≤1.0	
Package	Carton or Pallet								
Recommended using temperature: In oxidizing or neutral atmosphere, 100-250°C lower than the maximum service temperature, In reductive atmosphere, 200-350°C lower than the maximum service temperature.									

Calcium Silicate Board



Excellent Fire
Performance



Excellent impact
resistant



Superior Heat
Insulation



Low Thermal
Conductivity

Application:

Calcium silicate board is a new type of lightweight multi-purpose board, which is made of silicon materials, calcium materials, reinforcing fibers, etc. Calcium silicate board can be used in high temperature kilns directly to block the transfer of heat.

Technical Data:

Item	Calcium Silicate Insulation Board			
Maximum Use Temperature, °C	1000			
SiO ₂ , %	46-48			
CaO, %	37-41			
Al ₂ O ₃ , %	0.39-0.42			
MgO, %	0.5-0.7			
Bulk Density, kg/m ³	230±10%	250±10%	270±10%	
Modules of Rupture, MPa	≥ 0.45	0.50	0.55	
Compressive Strength, MPa	≥ 0.75	0.85	0.95	
Permanent Linear Change, %	1000°C*16h ≤ 2.0			
Thermal Conductivity Coefficient, W/(m·K)	100 °C	0.065	0.067	0.072
	400 °C	0.091	0.077	0.082
	600 °C	0.132	0.136	0.138



High temperature
up to 1800°C



Resistant to sudden
cold and hot



High chemical
etching resistance.



Various kinds
of shape

Application:

Alumina ceramics are ceramic materials based on alumina (Al_2O_3) for thick film integrated circuits. Alumina ceramics have good conductivity, mechanical strength and high temperature resistance.

Technical Data:

Item	Alumina				
	AL997	AL995	AL99	AL95	AL60
Index	AL997	AL995	AL99	AL95	AL60
Main Ingredient Content	99.70%	99.5%	99.0%	95%	60%
Air Tightness	Airtight	Airtight	Airtight	Airtight	Airtight
Bulk Density, kg/m ³	3.94	3.9	3.8	3.75	3
Hardness	9	9	9	8.8	7.5
Water Absorption	≤0.2	≤0.2	≤0.2	≤0.2	≤0.2
Flexural Strength, 20°C	375	370	340	304	205
Compressive Strength, 20°C	2300	2300	2210	1910	1820
Thermal Expansion Coefficient, 25°C-800°C	7.6	7.6	7.6	7.6	7.1
Dielectric Strength, 5mm	10	10	10	10	9
Dielectric Loss, 25°C @MHZ	<0.0001	<0.0001	0.0006	0.0004	0.0007
Permittivity, 25°C @MHZ	9.8	9.7	9.5	9.2	8.6
Volume Resistivity, 20°C	>10 ¹⁴ 2*10 ¹²	>10 ¹⁴ 2*10 ¹²	>10 ¹⁴ 4*10 ¹¹	>10 ¹⁴ 2*10 ¹¹	>10 ¹⁴ >10 ¹³
Long-term Use Temperature, °C	1700	1650	1600	1400	1100
Thermal Conductivity 25°C, W/(m·K)	35	35	34	20	16