Magnesia Brick

Description:

Magnesia brick is an alkaline refractory brick made primarily from high-purity sintered magnesia or fused magnesia, manufactured through high-temperature sintering or chemical bonding processes. These bricks offer excellent high-temperature performance, corrosion resistance and strength, making them widely used in high-temperature industrial-especially in equipment exposed to molten metals or strongly alkaline environments.

Technical Data:

Item	Grade						
	M—98	M—97A	M—97B	M—95A	M—95B	M—91	M—89
ω(MgO)/%≥	97.5	97.0	96.5	95.0	94.5	91.0	89.0
ω(SiO_2)/%≤	1.00	1.20	1.50	2.00	2.50	—	—
ω(CaO)/%≤	—	——	——	2.00	2.00	3.00	3.00
Apparent Porosity/%≤	16	16	18	16	18	18	20
Bulk Density/(g/cm^3)≥	3.00	3.00		2.95		2.90	2.85
CCS/MPa≥	60	60		60		60	50
	50	50		50		50	45
R.U.L. / 0.2 MPa $T_{0.6}$/℃≥	1700	1700		1650		1560	1500
HPLC/%		1650℃×2h —0.2～0		1650℃×2 h —0.3～0		1600℃×2 h —0.5～0	1600℃×2 h —0.6～0

Magnesia-Ferrite Spinel Brick

Description:

Magnesia-Ferrite spinel brick is a high-performance refractory material mainly composed of pleonaste and high-purity magnesia or fused magnesia, with the addition of additives such as iron powder and alumina micro-powder. It is manufactured through high-pressure forming and high-temperature sintering processes. These bricks feature high compressive and mechanical strength, excellent thermal shock stability, strong corrosion resistance, low thermal conductivity, superior kiln coating adherence, and green environmental protection without pollution.

Technical Data:

Item	Grade	
	MFS-85	MFS-80
MgO / % ≥	85.0	80.0
SiO_2 / % ≥	1.5	2.5
Fe_2O_3 / %	5~8	5~8
Bulk Density / (g/cm^3) ≥	3.2	3.1
Open Porosity / % ≤	15	18
CCS / MPa ≥	120	100
R.U.L (0.2 MPa $T_{0.6}$) / ℃ ≥	1680	1650
TSR (1100℃~cold) ≥	5	5

Magnesia-Alumina Spinel Brick

Description:

Magnesia-alumina spinel bricks are refractory materials primarily composed of magnesite (MgO) and bauxite (Al_2O_3), which form the spinel phase ($MgAl_2O_4$)through sintering. Spinel is a mineral with a high melting point, excellent thermal stability, and corrosion resistance. The adding of spinel enhances the overall performance of the bricks, especially high-temperature resistance, corrosion resistance and thermal shock resistance.

Technical Data:

Item	Grade			
	MA—90	MA—85	MA—80	MA—75
ω(MgO)/%≥	90	85	80	75
ω(Al_2O_3)/%	3～8	5～12	8～17	8～12
Apparent Porosity/%≤	17	17	16	19
Bulk Density/(g/cm^3)≥	2.90	2.95	2.95	2.85
CCS/MPa≥	45	45	55	40
	40	40	50	35
R.U.L./ 0.2 MPa $T_{0.6}$/℃≥	1700	1700	1700	1650
Thermal Shock Resistance(1100℃~cold)≥	3	8	12	8

Magnesia-Alumina-Chrome Spinel Brick

Description:

Magnesia-alumina-chrome composite spinel bricks are made from magnesia, synthetic spinel and a small amount of ferrochrome ore as the main raw materials, formed under high pressure and fired at medium to high temperatures. It is an upgraded product of pure magnesia bricks and magnesia-alumina bricks. Compared to the same base magnesia-alumina bricks, it shows significant improvements in performance, including higher load softening temperature and better thermal shock resistance. These bricks are primarily used in high-temperature industrial kilns, especially at the kiln roof, areas exposed to intense thermal shock and regions subjected to prolonged high-temperature load.

Technical Data:

Item	Grade	
	MAC—80	MAC—85
ω(MgO)/%≥	80	85
ω(Al_2O_3)/%	6～10	5～8
ω(Cr_2O_3)/%	4~6	3~5
Apparent Porosity/%≤	17	17
Bulk Density/(g/cm^3)≥	3.0	2.95
CCS/MPa≥	45	45
Refractoriness Under Load / 0.2 MPa $T_{0.6}$/℃≥	1700	1700
Thermal Shock Resistance(1000℃~Cold)≥	5	8

Magnesia-Chrome Brick

Description:

Magnesia-chrome bricks are refractory products mainly composed of magnesium oxide (MgO) and chromium oxide (Cr_2O_3), with periclase and spinel as the primary mineral components. These bricks have high refractoriness, high-temperature strength, strong resistance to alkaline slag erosion, excellent thermal stability, and a certain degree of adaptability to acidic slags.

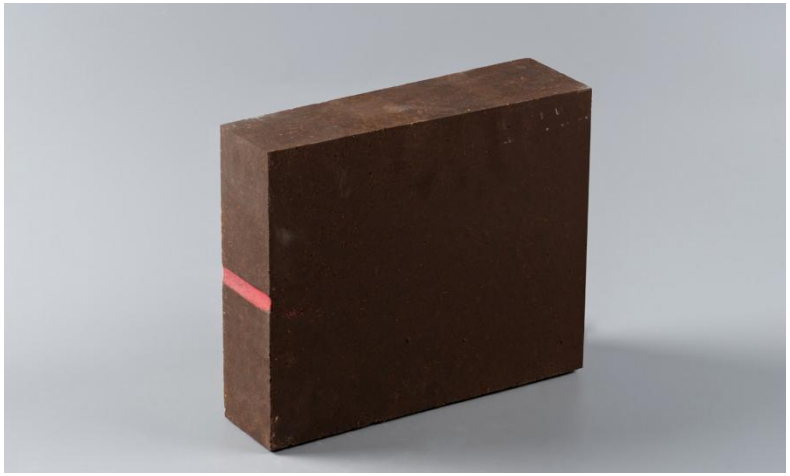
Technical Data:

Item	Grade					
	MGe-16A	MGe-16B	MGe-12A	MGe-12B	MGe-8A	MGe-8B
ω(MgO)/%≥	50	45	60	55	65	60
ω(Cr_2O_3)/%≥	16	16	12	12	8	8
Apparent Porosity/%≤	19	22	19	21	19	21
CCS /MPa≥	35	25	35	30	35	30
	min30	min20	min30	min25	min30	min25
Refractoriness Under Load / 0.2 MPa $T_{0.6}$/℃	1650	1550	1650	1550	1650	1530

Direct-bonded Magnesia-Chrome Brick

Description:

Direct bonded magnesia-chrome brick is a kind of refractory products primarily composed of periclase and magnesia-chromite spinel, bonded directly. This brick is made from high-purity sintered magnesia with less than 2% $SiO_2$and chromite as raw materials, produced through high-temperature sintering. The product has low impurity content and is fired at high and ultra-high temperatures, resulting in low porosity, high compressive strength, excellent wear resistance, corrosion resistance, thermal shock resistance, and spalling resistance.



Technical Data:

Item	Grade						
	ZMGe-16A	ZMGe-16B	ZMGe-12A	ZMGe-12B	ZMGe-8A	ZMGe-8B	DMGe-6
ω(MgO)/%≥	60	58	68	65	75	70	75
ω(Cr_2O_3)/%≥	16	16	12	12	8	8	6
ω(SiO_2)/%≤	1.5	2.5	1.5	2.5	1.5	2.5	2.5
Apparent Porosity/%≤	18	18	18	18	18	18	18
CCS/MPa≥	40	40	45	45	45	45	45
	min35	Min35	min35	Min35	min35	min35	min35
R.U.L./ 0.2 MPa $T_{0.6}$/℃	1670	1650	1700	1650	1700	1650	1700

Fused Semi-rebonded Magnesia-Chrome Brick

Description:

Fused semi-rebonded magnesia-chrome bricks are made from fused magnesia-chrome spinel, high-purity magnesia, high-purity chrome concentrate, and a composite high-temperature toughening agent. They are formed under high pressure and sintered at high temperature. These bricks exhibit excellent high-temperature performance and thermal stability, high mechanical strength, superior corrosion resistance, and outstanding anti-spalling performance.

Technical Data:

Item	Grade									
	BMGe-26	BMGe-24	BMGe-22	BMGe-20A	BMGe-20B	BMGe-18	BMGe-16 A	BMGe-16B	BMGe-12A	BMGe-12B
ω(MgO)/%≥	50	50	55	58	55	58	60	55	68	65
ω(Cr_2O_3)/%≥	26	24	22	20	20	18	16	16	12	12
ω(SiO_2)/%≤	2.0	2.0	2.0	2.0	2.5	2.0	2.0	2.5	2.0	2.5
Apparent Porosity/%≤	16 (15)	16 (15)	16 (15)	16 (15)	16 (15)	17 (15)	16 (15)	17 (16)	16 (15)	17 (16)
CCS /MPa≥	40(45)	40(45)	40(45)	40(45)	35(40)	40(45)	40(45)	35(40)	40(45)	35(40)
	min35 (40)	min35 (40)	min35 (40)	min35 (40)	min30 (35)	min35 (40)	min35 (40)	min30 (35)	min35 (40)	min30 (35)
Refractoriness Under Load / 0.2 MPa $T_{0.6}$/℃	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700

Fused Re-bonded Magnesia-Chrome Brick

Description:

Fused re-bonded magnesia-chrome brick is generally made by first melting lightly burned magnesia and chromite in an electric arc furnace to produce fused magnesia-chrome sand. Then this sand is crushed, ground, proportioned, shaped and sintered to manufacture the final product These bricks have a high degree of direct bonding, low impurity content, resulting excellent high-temperature strength, superior high-temperature volume stability, as well as outstanding corrosion and erosion resistance.

Technical Data:

Item	Grade								
	DMGe-26	DMGe-24	DMGe-22	DMGe-20A	DMGe-20B	DMGe-16A	DMGe-16B	DMGe-12A	DMGe-12A
ω(MgO)/%≥	50	50	55	58	58	62	58	68	65
ω(Cr_2O_3)/%≥	26	24	22	20	20	16	16	12	12
ω(SiO_2)/%≤	1.5	1.5	1.5	1.5	2.0	1.5	2.0	1.5	2.0
Apparent Porosity/%≤	16（15）	16（15）	16（15）	16（15）	17（15）	16（15）	17（16）	16（15）	17（16）
CCS/MPa≥	40(45)	40(45)	40(45)	40(45)	40(45)	40(45)	40(45)	40(45)	40(45)
	min35 (40)	min35 (40)	min35 (40)	min35 (40)	min35 (40)	min35 (40)	min35 (40)	min35 (40)	min35 (40)
R.U.L./ 0.2 MPa $T_{0.6}$/℃	1700	1700	1700	1700	1700	1700	1700	1700	1700

High Chrome Brick

Description:

High chrome bricks refer to refractory bricks with a chromium oxide content of not less than 75% and a total content of chromium oxide, alumina and zirconium oxide of not less than 98%. They are mainly made of industrial chromium oxide and industrial alumina as the main raw materials, sometimes with a small amount of zirconium oxide added, through a high-temperature sintering process.

High chrome bricks have the advantages of high refractoriness, good thermal shock resistance, good slag erosion resistance, strong oxidation resistance, excellent mechanical properties, and good thermal and electrical conductivity.

Technical Data:

Items	Grade			
	GGZ-75	GGZ-85	GGZ-90	GGZ-95
$\omega(Cr_2O_3)/\%$	≥75	≥85	≥90	≥95
$\omega(Cr_2O_3+Al_2O_3+ZrO_2)/\%$	≥98	≥98	≥98	≥98
$\omega(SiO_2)/\%$	≤0.2	≤0.2	≤0.2	≤0.2
$\omega(Fe_2O_3)/\%$	≤0.3	≤0.3	≤0.3	≤0.3
$\omega(K_2O+Na_2O)/\%$	≤0.2	≤0.2	≤0.2	≤0.2
Open Porosity /%	≤18	≤18	≤16	≤16
Bulk Density/(g/cm^3)	≥3.90	≥4.20	≥4.22	≥4.25
CCS/ MPa	≥120	≥120	≥120	≥120

Chrome Corundum Brick

Description:

Chrome corundum bricks are made of alumina chromium raw materials, chromium oxide, alumina and other materials, through high temperature sintering. The total content of alumina and chromium oxide is not less than 90%, and the content of chromium oxide is not more than 50%. Chrome corundum brick is a high grade refractory material with excellent performance: high-temperature resistant, good thermal shock stability, good compressive strength and thermal conductivity.

Technical Data:

Items	Grade			
	GGZ-5	GGZ-12	GGZ-20	GGZ-30
ω(Cr_2O_3)/%	5	12	20	30
ω(Cr_2O_3+Al_2O_3)/%	93	93	93	93
ω(Fe_2O_3)/%	0.3	0.3	0.3	0.3
Open Porosity /%	18	18	18	18
Bulk Density/(g/cm^3)	3.10	3.20	3.40	3.50
CCS/ MPa	100	100	100	100

Corundum Brick

Description:

Corundum brick is an excellent refractory brick with corundum as the main crystal phase and Al_2O_3 content of more than 95%. It is made of industrial alumina or high-alumina bauxite as the main raw material and is formed by high-temperature sintering. They have good thermal shock stability, high mechanical strength, good wear resistance, and excellent corrosion resistance.

Technical Data:

Items		Grades			
		GYZ-99A	GYZ-99B	GYZ-98	GYZ-95
$\omega(Al_2O_3)$ / %	μ_0	≥99.0	≥99.0	≥98.0	≥95.0
$\omega(SiO_2)$ / %	μ_0	≤0.15	≤0.2	≤0.5	——
$\omega(Fe_2O_3)$ / %	μ_0	≤0.10	≤0.15	≤0.20	≤0.30
Open Porosity / %	μ_0	≤19	≤19	≤19	≤20
Bulk Density / (g/cm^3)	μ_0	≥3.20	≥3.15	≥3.15	≥3.10
CCS / MPa	μ_0	≥80	≥80	≥80	≥100
HPLC (1600℃×3h) / %	X_{min}	-0.2~+0.2	-0.2~+0.2	-0.2~+0.2	-0.3~+0.3
R.U.L (0.2 MPa ,0.6%) / ℃	X_{min}	1700	1700	1700	1700

Corundum Mullite Brick

Description:

Corundum mullite brick is a high-performance refractory brick with both corundum phase and mullite phase. It is made of corundum and mullite as the main raw materials and calcined at high temperature.

Corundum mullite bricks can remain stable in a high temperature environment of 1790℃, and also have the advantages of high mechanical strength, good wear resistance, good thermal shock resistance, and stable chemical properties.

Technical Data:

Items	Grades			
	GMZ-88	GMZ-85	GMZ-80	GMZ-75
ω(Al_2O_3) / %	≥88.0	≥85.0	≥80.0	≥75.0
ω(Fe_2O_3) / %	≤0.8	≤1.0	≤1.0	≤1.2
Open Porosity / %	≤15	≤16	≤18	≤18
Density / (g/cm^3)	≥3.00	≥2.85	≥2.75	≥2.60
CCS / MPa	≥120	≥100	≥100	≥100
	100	80	80	60
R.U.L (0.2 MPa , $T_{0.6}$) / ℃	≥1700	≥1680	≥1650	
HPLC (1600℃×3h) / %	-0.1~+0.1		-0.2~+0.2	
TSR(1100℃, Cold Water) / cycles	≥10	≥10	——	

Dense Zircon Brick

Description:

Dense zircon bricks are high-performance refractory bricks made from zircon sand raw materials after extrusion molding and high-temperature calcination process. These bricks have excellent erosion resistance, high bulk density and high strength, good refractoriness and thermal shock stability.

Technical Data:

Items		Grades				
		ZS-G	ZS-Z	ZS-65A	ZS-65B	ZS-63
Density / (g/cm^3)		≥4.30	≥4.10	≥3.70	≥3.60	≥3.55
Open Porosity / %		≤1	≤11	≤17	≤19	≤20
CCS / MPa		≥300	≥200	≥100	≥80	≥60
R.U.L (0.2 MPa ,$T_{0.6}$) / ℃		≥1700	≥1700	≥1680	≥1650	≥1600
Element	ZrO_2	≥65	≥68	≥65		≥63
	SiO_2	≤33	≤30	≤33		≤35
	Fe_2O_3	≤0.20	≤0.20	≤0.20		≤0.20
	TiO_2	≤1.20	≤1.20	≤1.20		——

High-Alumina Brick

Description:

High-alumina brick is a kind of neutral refractory materials made from bauxite or other raw materials with a high alumina (Al_2O_3) content, which contain more than 48% alumina and is formed and calcined at high temperatures. They offer excellent high-temperature resistance, corrosion resistance, thermal stability, and slag resistance, making them particularly suitable for equipment and processes running at high temperatures for a long time.

Technical Data:

Item	Grade						
	LZ-80	LZ-75	LZ-70	LZ-65	LZ-55	LZ-48	LZ-65G
$\omega(Al_2O_3)$ / %	≥80	≥75	≥70	≥65	≥55	≥48	≥65
Open Porosity / %	≤21(23)	≤24(26)	≤24(26)	≤24(26)	≤22(24)	≤22(24)	≤19
CCS / MPa	≥70(60)	≥60(50)	≥55(45)	≥50(40)	≥45(40)	≥40(35)	≥60
	≥60(50)	≥50(40)	≥45(35)	≥40(30)	≥35(30)	≥30(35)	≥50
R.U.L. (0.2 MPa $T_{0.6}$) / ℃	≥1530	≥1520	≥1510	≥1500	≥1450	≥1420	≥1500
HPLC / %	1500℃×2 h 0.4～0.2			1450℃×2 h 0.4～0.1			1450℃×2 h 0.2～0

Remarks: The data in parentheses are for the lattice bricks and shaped bricks.

Phosphate Bonded Alumina Wear-resistant Brick

Description:

Phosphate bonded alumina wear-resistant brick is a kind of refractory brick made primarily from high alumina bauxite clinker, corundum, and mullite, using a phosphate chemical bonding process. These bricks feature high compressive strength, low porosity, excellent thermal shock resistance, good wear resistance, and strong anti-spalling performance.

Technical Data:

Item	Grade					
	PA-80	PA-75	PA-70	PA-65	PA-60	PA-55
Al_2O_3 / (%)	80	75	70	65	60	55
Bulk Density / (g/cm^3) ≥	3.0	2.9	2.8	2.7	2.6	2.5
Open Porosity / (%) ≤	12	14	15	16	17	18
CCS / MPa ≥	150	120	100	90	80	70
λ 1000℃ [W/(m·K)]	/	2.0	2.0	2.0	2.0	2.0
R.U.L (0.2 MPa $T_{0.6}$) / ℃ ≥	1550	1500	1480	1450	1400	1350
TSR (1100 ℃~ cold) ≥	10	10	10	10	10	10
Abrasion Resistance RT / cm^3	5	5	5	5	5	5

Fireclay Brick

Description:

Fireclay brick is a type of refractory material made primarily from refractory clay, which is fired at high temperatures. The main component is aluminosilicate. These bricks have excellent fire resistance, thermal stability, and slag resistance. They are generally categorized into: fireclay bricks, dense clay bricks, low-creep clay bricks, and thermal shock-resistant clay bricks.

Technical Data:

Item	Grade				
	PN-42	PN-40	PN-35	PN-30	PN-25
$\omega(Al_2O_3)$ / % ≥	42	40	35	30	25
$\omega(Fe_2O_3)$ / % ≤	2.0	—	—	—	—
Open Porosity / % ≤	20(22)	24(26)	26(28)	23(25)	21(23)
CCS / MPa ≥	45(35)	35(30)	30(25)	30(25)	30(25)
	35(25)	25(20)	20(15)	20(15)	20(15)
R.U.L. (0.2 MPa $T_{0.6}$) / ℃ ≥	1400	1350	1320	1300	1250
HPLC / %	1400℃×2 h —0.4～0.1	1350℃×2 h —0.4～0.1	1300℃×2 h —0.4～0.1	1300℃×2 h —0.4～0.1	1250℃×2 h —0.4～0.1

Acid-resistant Brick

Description:

Acid-resistant bricks usually contain more than 70% SiO_2, which makes them good acid-resistant, resisting the erosion of most acid substances.

Acid-resistant bricks also contain about 15% - 30% Al_2O_3, which can improve the mechanical strength and high temperature resistance, and enhance the overall stability.

In addition, acid-resistant bricks also have a small amount of flux such as CaO, MgO, K_2O, Na_2O, etc., the content is generally 5% - 10%, which can reduce the firing temperature of bricks and improve performance.

Technical Data:

Items	Grades			
	AB-1	AB-2	AB-3	AB-4
Water absorption / %	≤0.2	≤0.5	≤2.0	≤4.0
Bending strength / MPa	≥58.8	≥39.2	≥29.4	≥19.6
Acid resistance / %	≥99.8	≥99.8	≥99.8	≥99.7
Resistance to rapid cooling and heating	ΔT=100℃	ΔT=100℃	ΔT=130℃	ΔT=150℃
	No cracks, peeling or breakage			

Andalusite Brick

Description:

Andalusite bricks are made of raw materials such as andalusite and mullite, which are crushed, batched, semi-dry high-pressure molded, dried and sintered at a high temperature of about 1500℃.

The main characteristics of andalusite bricks are high refractoriness and stability at 1800℃. In addition, they have excellent thermal shock stability and creep resistance, high load softening temperature, and chemical corrosion resistance.

Technical Data:

Items		Grades					
		RH155	RH150	RH145	RH140	RH135	RH130
$\omega(Al_2O_3)$ / %	$\mu_0\geq$	69	65	61	57	53	49
$\omega(Fe_2O_3)$ / %	$\mu_0\leq$	1.0	1.0	1.2	1.2	1.5	1.5
$\omega(TiO_2)$ / %	$\mu_0\leq$	0.5	0.5	0.5	0.6	0.6	0.6
Open Porosity / %	$\mu_0\leq$	20(22)	20(22)	20(22)	20(22)	20(22)	20(22)
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
		(2.50-2.65)	(2.45-2.60)	(2.40-2.55)	(2.35-2.50)	(2.30-2.45)	(2.25-2.40)
CCS / MPa	$\mu_0\geq$	55(50)	55(50)	50(45)	50(45)	40(35)	40(35)
	X_{min}	45	45	40	40	30	30
0.2 MPa R.U.L / ℃	$\mu_0\geq$	1700	1700	1650	1600	1520	1450
HPLC / %		(1500℃×2h)±0.2	(1500℃×2h)±0.2	(1500℃×2h)±0.2	(1450℃×2h)±0.2	(1450℃×2h)±0.2	(1450℃×2h)±0.2
CMOR(0.2MPa, 0~50h) / %	$\mu_0\leq$	0.8 (1550℃)	0.8 (1550℃)	0.8 (1450℃)	0.8 (1400℃)	0.8 (1350℃)	0.8 (1300℃)

Note: The values in brackets are checkered bricks or handmade bricks

Light Weight Fireclay Brick

Description:

Light weight fireclay brick, also known as fireclay insulating brick, is a type of lightweight refractory material made from refractory clay with an alumina content of 30% to 46%. The characteristics of these bricks include low density, low thermal conductivity, high refractoriness and good thermal insulation performance, making them primarily used in the areas that need heat insulation in various kilns.

Technical Data:

Item	Grade						
	NG140-1.5	NG135-1.3	NG135-1.2	NG130-1.0	NG125-0.8	NG120-0.6	NG115-0.5
Bulk Density/(g/cm^3)	≤1.5	≤1.3	≤1.2	≤1.0	≤0.8	≤0.6	≤0.5
CCS / MPa	≥6.0	≥5.0	≥4.5	≥3.5	≥2.5	≥1.3	≥1.0
	5.5	4.5	4.0	3.0	2.0	1.0	0.8
HPLC / %	1400 ℃× 12 h	1350 ℃×12 h		1300 ℃× 12 h	1250 ℃× 12 h	1200 ℃× 12 h	1150 ℃× 12 h
	Xmin~Xmax: -2 ~ 1						
λ [W/m·k] (350±25℃)	≤0.65	≤0.55	≤0.50	≤0.40	≤0.35	≤0.25	≤0.23

Mullite Insulation Brick

Description:

Mullite insulation brick is a kind of insulating brick primarily made from mullite as the main raw material, with an alumina content generally ranging from 45% to 65%. The mineral composition, in addition to mullite, includes small amounts of glass phase and quartz when the alumina content is relatively low; whereas, when the alumina content is higher, small amounts of corundum are present. This product features low thermal conductivity, low thermal expansion, low impurity content, high resistance to high temperatures, high compressive strength and excellent thermal shock resistance. Moreover, they can be processed into special shapes and in direct contact with the fire side.

Technical Data:

Item		Grade						
		MG-23	MG-25	MG-26	MG-27	MG-28	MG-30	MG-32
$\omega(Al_2O_3)/\%$	≥	40	50	55	60	65	70	77
$\omega(Fe_2O_3)/\%$	≤	1.0	1.0	0.9	0.8	0.7	0.6	0.5
Bulk density/(g/cm^3)	≤	0.55	0.80	0.85	0.90	0.95	1.05	1.35
CCS / MPa	≥	1.0	1.5	2.0	2.5	2.5	3.0	3.5
	Min	0.9	1.3	1.8	2.2	2.2	2.7	3.2
HPLC（T/℃×12h）/%	T/℃	1230	1350	1400	1450	1510	1620	1730
λ/[W/(m·k)]≤（±25℃）	200	0.18	0.26	0.28	0.32	0.35	0.42	0.56
	350	0.20	0.28	0.30	0.34	0.37	0.44	0.60
	600	0.22	0.30	0.33	0.36	0.39	0.46	0.64
R.U.L. (0.2 MPa $T_{0.6}$) / ℃ ≥		1080	1200	1250	1300	1360	1470	1570

Poly-light High-Alumina Brick

Description:

Poly-light high-alumina brick is a new type of lightweight insulation material made from high-alumina bauxite as the main raw material, with a certain amount of combustible substances or foaming agents added, and then processed through high-temperature sintering. Poly-light high-alumina bricks have the advantages of low density, high mechanical strength, excellent fire resistance, strong slag resistance, and thermal shock stability. As a result, they are widely used in high-temperature fields such as furnaces, metallurgy,etc. They are generally used for furnaces lining and insulation layers, as well as areas that are not subject to intense high-temperature molten material erosion and scouring. When in direct contact with flames, the surface contact temperature should not exceed 1350°C.

Technical Data:

Item	Grade					
	JLG-1.3L	JLG-1.0L	JLG-0.8L	JLG-0.7L	JLG-0.6L	JLG-0.5L
$\omega(Al_2O_3)/\%\geq$	72	60	55	50	50	48
$\omega(Fe_2O_3)/\%\leq$				1.5		
Bulk Density/$(g/cm^3)\leq$	1.3	1.0	0.8	0.7	0.6	0.5
CCS/MPa≥	5	3	2.5	2.0	1.5	1.2
	min4.5	min2.5	min2.0	min1.5	min1.2	min1.0
HPLC/%(T/°C×12 h)	1700°C -1.0～0.5	1600°C -1.0～0.5	1500°C -1.0～0.5	1400°C -1.0～0.5	1350°C -2.0～1.0	1350°C -2.0～1.0
Thermal Conductivity W/m·k≤ (350±25)°C	0.6	0.50	0.35	0.30	0.25	0.20

High Alumina Insulating Brick

Description:

High alumina insulating brick is a kind of heat-insulating refractory product made primarily from bauxite, with an Al_2O_3 content of no less than 48%. They are mainly produced using bauxite clinker, combined with clay as raw materials, and mixed with binders and sawdust. To enhance the product's performance, industrial alumina, corundum, sillimanite, kyanite and silica are added in fine powder form to produce products with a bulk density of over 0.4 g/cm^3. The characteristics of these products include light weight, excellent thermal insulation properties (low thermal conductivity), high refractoriness, excellent thermal stability and mechanical strength.

Technical Data:

Item	Grade					
	LG140-1.2	LG140-1.0	LG140-0.8L	LG135-0.7L	LG135-0.6L	LG125-0.5L
$\omega(Al_2O_3)/\%\geq$	48					
$\omega(Fe_2O_3)/\%\leq$	2.0					
Bulk Density (g/cm^3)≤	1.2	1.0	0.8	0.7	0.6	0.5
CCS / MPa ≥	4.5	3.5	2.5	2.2	1.6	1.2
	min4.0	min3.0	min2.2	min2.0	min1.5	min1.0
HPLC / %	1400℃×12 h —2～1.0			1350℃×12 h —2～1.0		1250℃×12 h —2～1.0
λ [W/m·k] (350±25℃) ≤	0.55	0.50	0.35	0.30	0.25	0.20

Light Weight Silica Brick

Description:

Light weight silica brick , also known as silica insulating brick, is a type of light weight refractory material made primarily from silica stone, with a silica content of over 91% and a bulk density of less than 1.2 g/cm^3. The characteristics of these bricks include light weight, good thermal insulation properties (low thermal conductivity), high refractoriness, excellent thermal stability and mechanical strength.

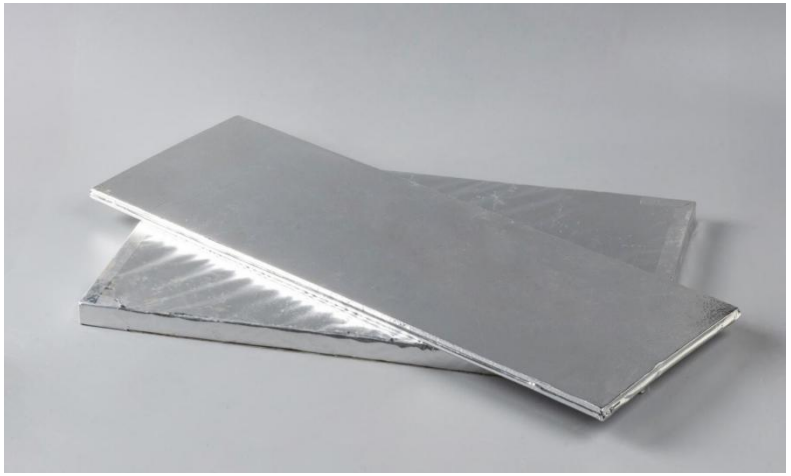
Technical Data:

Item	Grade		
	GGR-1.00	GGR-1.10	GGR-1.20
ω(SiO_2)/%≥	91.0	92.0	92.5
Bulk Density/(g/cm^3)≤	1.00	1.10	1.20
CCS/MPa≥	3.0	5.0	5.5
	Min2.5	Min4.5	Min5.0
HPLC（1400 ℃，12 h）/%	1450 ℃，2 h -0.1~0.5		1550 ℃，2 h -0.1~0.5
R.U.L / 0.1 MPa$T_{0.6}$/℃≥	1400	1450	1520
Thermal Conductivity W/m·k 350℃≤	0.40	0.45	0.60

Nano Insulation Board

Description:

We mix nano-scale silica materials with some additives and use dry molding technology to make a micro-porous structure of high-efficiency thermal insulation board. It has a lower thermal conductivity than still air, excellent thermal insulation performance in high temperature environment, and obvious energy saving effect.



Technical Data:

Items		Grades			
		NIB-400	NIB-550	NIB-950	NIB-1150
Color		Off-white	Grey	Off-white	Off-white
Size(mm)		250*200 / 320*200	250*200 / 200*200	1000*600, etc.	600*200, etc.
Thick(mm)		25~60	25~100	5~50	5~20
Density(kg/m^3)		400±5%	550±5%	280±5%	320~360
Coating form		Heat shrink wrap	Heat shrink wrap	Heat shrink wrap, Al-foil wrap, Fire cloth wrap	Al-foil wrap
Work Temp(℃)		≤1000	≤1100	≤1000	≤1050
CCS(MPa)/Press10%		≥0.5	≥0.5	≥0.35	≥0.5
HTLSR/%	800℃×4h	≤1.5	≤1.2	≤2.0	-
	1050℃×24h	-	-	-	≤3.5
λ/ [W/(m ▪ K)]	200℃	-	-	0.02	-
	400℃	-	-	0.023	-
	600℃	0.031	0.049	0.027	-
	800℃	0.042	0.055	0.032	0.037
	950℃	-	-	-	0.042
	1000℃	0.052	0.068	-	-
	1050℃	-	-	-	0.045