LONG KETER
REFRACTORIES

2025

REFRACTORY RAW MATERIALS

Product Catalog

Long Keter New Materials Co. Ltd.

Tabular Alumina

Brief Introduction

Tabular Alumina is a pure sintered alpha-alumina material that has been fully densified by rapid-sintering without the use of sintering aids at temperatures in excess of 1800°C. Tabular Alumina has characteristic large & well developed hexagonal tablet shaped alpha-alumina crystals of up to 200 μm length.

Tabular alumina sizes are available as below:
Granular size: 0-0.5mm, 0.5-1mm, 1-3mm, 3-5mm, 5-8mm
Fine powder: 180mesh, 200mesh, 325mesh
Grain size can be customized.

Applications

Tabular Alumina is good choice as aggregates of unshaped and shaped high performance refractories. It is used in a variety of industries such as steel, foundry, cement, petrochemical, ceramic and waste incineration. Other common applications include its use in electrical insulators, kiln furniture and as a catalyst support. Ground Tabular is an excellent product to be used as a filler in epoxy or resin systems where high dielectric strength, thermal conductivity or abrasion resistance are desired.

Product Data

Item	Chemical Composition (%)					Physical Properties	
	Al_2O_3	SiO_2	Fe_2O_3	K_2O	Na_2O	B. D. (g/cm^3)	A. P. (%)
Tabular Alumina	≥99.2	≤0.1	≤0.04	≤0.01	≤0.35	≥3.5	≤5

Color	Hardness (Mohs)	Bulk density (g/cm^3)	Melting point (°C)	Maximum service temperature (°C)
White	9	3.5-3.7	2250	1900

White Fused Alumina

Brief Introduction

White Fused Alumina (WFA or WA) is a important raw material for advanced refractories and abrasives, a widely used raw material in refractories, ceramics, grinding wheels, sandpaper, blasting media, metal preparation, laminates, coatings, lapping, polishing, grinding, and hundreds of other applications.

Available size

0-1mm; 1-3mm; 3-5mm; 5-8mm; Powder or as customer's requirement.

Properties

1. High hardness
2. High purity
3. Good self-sharpening
4. Strong grinding ability
5. Acid-alkali corrosion resistance
6. High temperature resistance
7. Good thermal stability

Product Data

Color	White
Hardness (Mohs)	9
Bulk density (g/cm^3)	3.5-3.7
Melting point (°C)	2250
Maximum service temperature (°C)	1900

Item	Limit Value
Al_2O_3 (%)	≥99.2
Fe_2O_3 (%)	≤0.1
Na_2O (%)	≤0.4
SiO_2 (%)	≤0.1

Brown
Fused Alumina

Brief Introduction

Brown Fused Alumina is made of high-quality bauxite and refined in electric arc furnace at more than 2000 °C. Thanks to its high purity, good crystallization, strong fluidity, low linear expansion coefficient and great corrosion resistance, brown fused alumina is wide used as raw material of refractory products.

Available size

0-1mm; 1-3mm; 3-5mm; 5-8mm; Powder or as customer's requirement.

Applications

Mainly used for abrasion and high temperature resistant, inoxidizable aggregate and filling of shaped and monolithic refractories in steel metallurgy, various industrial stoves, electric furnace, etc.

Product Data

Color	Brown
Hardness (Mohs)	9
Specific gravity (g/cm^3)	3.9-4.1
Melting point (°C)	＞1850
Maximum service temperature (°C)	1600

Item	Granular	Powder
Al_2O_3 (%)	≥95	≥94.5
Fe_2O_3 (%)	≤0.3	≤0.5
TiO_2 (%)	≤3	≤3.5
SiO_2 (%)	≤1	≤1.5

Bauxite

Brief Introduction

Bauxite is one of the principal ore of aluminum. Bauxite contains hydrous aluminum oxides and aluminum hydroxides, formed through the laterization of aluminous rocks in tropical and subtropical areas.
Bauxite is obtained by calcining (heating superior grade bauxite at high temperature ranges from 850°C to 1600°C). In this way moisture could be removed to increase the alumina content.

Available size

0-1mm; 1-3mm; 3-5mm; 5-8mm;
16-30mesh; 30-60mesh; 120mesh;
200mesh; 325mesh or as customer's requirement.

Applications

1. Aluminum industry.
2. Precision casting.
3. Refractory industry.
4. Alumina silicate fiber.
5. Mixed with magnesium oxide,it can be an nice bonding agent especially for pouring entire steel teeming ladle lining.
6. Raw materials for refractory cement, grinding abrasive alumina, ceramic industry and chemical industry for making aluminium compounds.

Product Data

Item	SNR90	SNR88	SNR86	SNR85
Al_2O_3 (≥%)	90	88	86	85
Fe_2O_3 (≤%)	1.6	1.6	1.8	2.0
TiO_2 (≤%)	4.0	4.0	4.0	4.0
CaO+MgO (≤%)	0.4	0.4	0.4	0.4
K_2O+Na_2O (≤%)	0.4	0.4	0.4	0.4
Bulk density (≥ g/cm^3)	3.3	3.25	3.2	3.1
Moisture (≤%)	0.3	0.3	0.3	0.4

Flint Clay

Brief Introduction

The Flint clay is important raw material for high grade refractory fire bricks, refractory clay castable, low porosity fire clay bricks etc. It could also be engineered into casting sand for foundry industry.

Product Data

Type	Content (%)		Refractoriness (CN)	Density (g/cm^3)	Water Absorption (%)	Others
	Al_2O_3	Fe_2O_3				
LKT45	45~50	≤1.0	178	≥2.55	2.5	≤2.0
LKT44	44~50	≤1.3	176	≥2.50	2.5	≤2.5
LKT43	43~50	≤1.5	176	≥2.45	3	≤3.0

Calcined Alumina

Brief Introduction

Calcined Alumina is made from industrial aluminium hydroxide or industrial alumina, it is generally used to produce slide gate sets, submerged entry nozzles, ladle shrouds, corundum bricks etc., it could also be used together with reactive alumina in monolithic refractories to increase liquidity, decrease water addition and porosity, increase strength and get lower linear change.

Reactive α -Alumina micro powder is widely used to produce refractory castable for steel ladle, castable for iron flow trough, purge plug, well block, corundum self-flow refractory castable, gunning repairing mass, etc.

Product Data

Product	Calcined Alumina			Reactive Alumina			
Typical Value	CL-800SG	BM-9FG	BM+1	4000SG	BM-10	BL-2	BL-1
Na_2O (%)	0.06	0.12	0.04	0.05	0.14	0.04	0.03
Fe_2O_3 (%)	0.02	0.04	0.04	0.03	0.02	0.03	0.04
MgO (%)	0.01	0.02	0.01	0.04	0.01	0.02	0.001
SiO_2 (%)	0.04	0.06	0.05	0.003	0.05	0.07	0.06
CaO (%)	0.02	0.02	0.02	0.03	0.02	0.03	0.02
Specific Surface Area/BET (m^2/g)	0.85	0.93	1.28	3.30	2.86	3.71	1.70
D50 Malvern (μm)	4.8	5.2	3.7	0.95	2.01	1.12	2.95
D90 Malvern (μm)	11.3	22.7	9.2	2.40	8.91	2.80	9.50

Dead Burned Magnesite

Brief Introduction

Dead-burned magnesite is made from selected Natural magnesite, it is produced by mine-selecting, purifying, being calcined in shaft kiln.

Properties

High temperature performance and high density, strong anti-oerme ability, easy to be rapidly sintered, good thermal stability, strong alkali slag resistance, long service life, etc.

Product Data

Items	MgO (≥%)	SiO_2 (≤%)	CaO (≤%)	LOI (≤%)	Fe_2O_3 (≤%)	Al_2O_3(≤%)	B.D. (g/cm^3)
DBM91	91	4.5	1.6	0.3	1.5	1.5	3.18
DBM92	92	4.0	1.6	0.3	1.5	1.5	3.18
DBM95	95	1.5	1.6	0.15	0.8	0.2	3.3
DBM96	96	1.2	1.6	0.15	0.8	0.2	3.35
DBM97	97	1.0	1	0.12	0.8	0.15	3.4

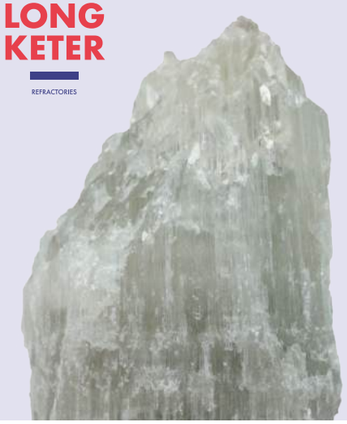
Fused Magnesite

Brief Introduction

Fused Magnesite is manufactured by fusion with raw magnesite ores which have advantages of firm and tight structure, stable chemical properties, high strength etc. This high grade alkali fused magnesite is mainly used in metallurgy, chemical scientific & research.

Product Data

Item	Specifications						Grain size (mm)
	MgO (≥%)	SiO_2 (≤%)	CaO (≤%)	Fe_2O_3 (≤%)	I.L. (≤%)	B.D. (≥g/cm^3)	
FM-98	97.8	0.5	1.1	0.5	0.2	3.5	0-30 0-120
FM-97.5	97.5	0.6	1.2	0.7	0.2	3.5	
FM-97	97	0.7	1.4	0.8	0.3	3.45	
FM-96	96	1.1	1.4	1.0	0.4	3.4	



White
Fused Magnesite

Brief Introduction

White Fused Magnesite is made from super A grade natural magnesite or high purity light burnt magnesite, fused in high temperature electric arc furnace. WFM has high purity, large size crystalline, dense structure, high slag resistance and good thermal shock resistance. It's important raw material for high grade magnesia fire bricks, magnesia carbon bricks, monolithic refractories, etc.

Product Data

Item	Specifications						Grain size (mm)
	MgO (≥%)	SiO_2 (≤%)	CaO (≤%)	Fe_2O_3 (≤%)	I.L. (≤%)	B.D. (≥g/cm³)	
FM-98	99	0.15	0.40	0.25	0.10	3.50	0-30 0-60
FM-98.5	98.5	0.3	0.70	0.30	0.10	3.50	
FM-98	98	0.35	1.00	0.40	0.10	3.50	
FM-97.8	97.8	0.40	1.00	0.50	0.10	3.50	
FM-97.5	97.5	0.50	1.00	0.55	0.15	3.50	
FM-97	95	0.60	1.20	0.70	0.20	3.50	

Sintered
Magnesia Spinel

Brief Introduction

Sintered Magnesia Spinel is sintered by high temperature rotary kiln, using industrial alumina powder or super grade bauxite mixed with high purity caustic magnesia as raw materials. It has strong hardness, high melting point and small coefficient of thermal expansion, etc.

Therefore it is ideal raw material for ladle castable, magnesia spinel bricks, which are widely applied to the large and medium size rotary kilns, glass kilns, open hearth, etc.

Product Data

	Al_2O_3 (%)	MgO (%)	SiO_2 (%)	Fe_2O_3 (%)	CaO (%)	B.D. (g/cm³)
HMAS-90	87-90	8-11	≤0.18	≤0.17	≤0.25	3.26
HMAS-76	75-77	22-24	≤0.20	≤0.20	≤0.30	3.30
HMAS-66	64-66	32-34	≤0.30	≤0.30	0.50	3.25
HMAS-50	49-51	48-50	≤0.35	≤0.40	0.65	3.25
HMAS-30	58-62	28-32	≤3.00	≤2.00	1.5	3.10

Fused Magnesia Spinel

Brief Introduction

Fused Magnesia Spinel is ideal raw material for slide gate plates and nozzles, refractories for steel continuous casting, plates and nozzles, firebricks for lining of ladle, inner bricks for cement kiln, refractory casting, Kiln furniture for medium and high temperature equipment.

Product Data

Index \ Brand		FMA-76		FMA-66	
		Standard Value	Typical value	Standard Value	Typical value
Chemical composition (%)	MgO	≤26	25	≥32	34
	Al_2O_3	≤76	73	≤68	65
	SiO_2	≤0.5	0.4	≤0.5	0.4
	Fe_2O_3	≤0.5	0.4	≤0.5	0.4
	CaO	≤0.65	0.4	≤0.65	0.5
	Na_2O	≤0.4	0.3	≤0.4	0.3
Bulk density (g/cm³)		≥3.3	3.35	≥3.3	3.35
Apparent porosity (%)		≤5	4.0	≤5	4.0

Specifications for reference. High-grade or medium-grade magnesia spinel with various contents (rich magnesia or rich alumina) can be provided as request.

Silicon Carbide

Brief Introduction

Silicon carbide is important raw material combined by Silica and Carbon. Silicon carbide is with high hardness, high melting point, great corrosion and erosion resistance, excellent thermal conductivity etc. With excellent performance both in chemical and physical properties, it's are widely used to produce high temperature, high strength and high corrosion resistance industrial ceramics, abrasive materials, cutting tools, electrical elements, etc.

Product Data

Index \ Brand	LKTSC-98	LKTSC-97	LKTSC-95	LKTSC-90	LKTSC-88
SiC (%)	98	97	95	90	88
Fe_2O_3 (%)	0.4	0.6	1.0	2.5	3.0
F.C. (%)	0.4	0.6	1.0	2.5	3.0
Size	1-3mm / 0-1 mm / 200M / 325M				

Natural Flake Graphite

Brief Introduction

Graphite is used as refractory material in metallurgical and foundry industry, it is used as mould and anti-rust coating material. In electric industry, it is used to produce carbon electrode, carbon rod and battery. Natural flake graphite is also widely used as raw material of magnesia carbon bricks, slide gate plates, ladle nozzles, tundish nozzles, etc.

Properties

Graphite has various superior properties such as good lubrication, great chemical stability, high temperature resistance, excellent electricity conductivity , plasticity, coating and spreadability, leakage resistance, anti-corrosivity and non-decomposition, etc.

Product Data

Brand	Technical specifications			
	Fixed carbon (≥ %)	Volatile (≤ %)	Ash (≤ %)	Moisture (≤ %)
NFG-90	90	1.8-2.0	8-8.2	1.0
NFG-91	91	1.4-1.6	7.4-7.6	1.0
NFG-92	92	1.35-1.55	6.45-6.65	1.0
NFG-93	93	1.3-1.5	5.5-5.7	1.0
NFG-94	94	1.2	4.8	0.5
NFG-95	95	1.2	3.8	0.5
NFG-96	96	1.2	2.8	0.5
NFG-97	97	1.0-1.2	1.8-2.0	0.5
NFG-98	98	0.7-1.0	1.0-1.3	0.5

The specifications could be adjusted according to customer's requirements

Andalusite

Brief Introduction

Andalusite is a kind of alumina silicate mineral. It's one of the Kyanite series mineral(include andalusite, silimanite, kyanite), main contents are Al_2O_3 and SiO_2.

Properties

Andalusite has great thermal shock resistance, stable volume, high strength, great erosion and corrosion resistance, great slag resistance and high refractoriness under load.

It's widely used as raw materials for monolithic refractories, high alumina refractory bricks for hot blast furnace, copper smelting furnace etc.

Product Data

Type	Y55	Y56	Y57	Y58
Al_2O_3 (%)	55	56	57	58
SiO_2 (%)	42.5	41	41	41
Fe_2O_3 (%)	1.4	1.2	1.0	0.8
TiO_2 (%)	0.3	0.4	0.4	0.4
CaO (%)	/	0.4	0.4	0.4
MgO (%)	/	0.35	0.35	0.35
Na_2O (%)	/	0.15	0.15	0.15
K_2O (%)	/	0.25	0.25	0.25
H_2O (%)	/	0.15	0.15	0.15
L.O.I (%)	0.9	0.9	0.9	0.9
Volume density (g/cm^3)	3.1	3.1	3.1	3.1
Grain size	0-1 mm, 1-3 mm, 200 mesh			

LONG KETER
REFRACTORIES

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