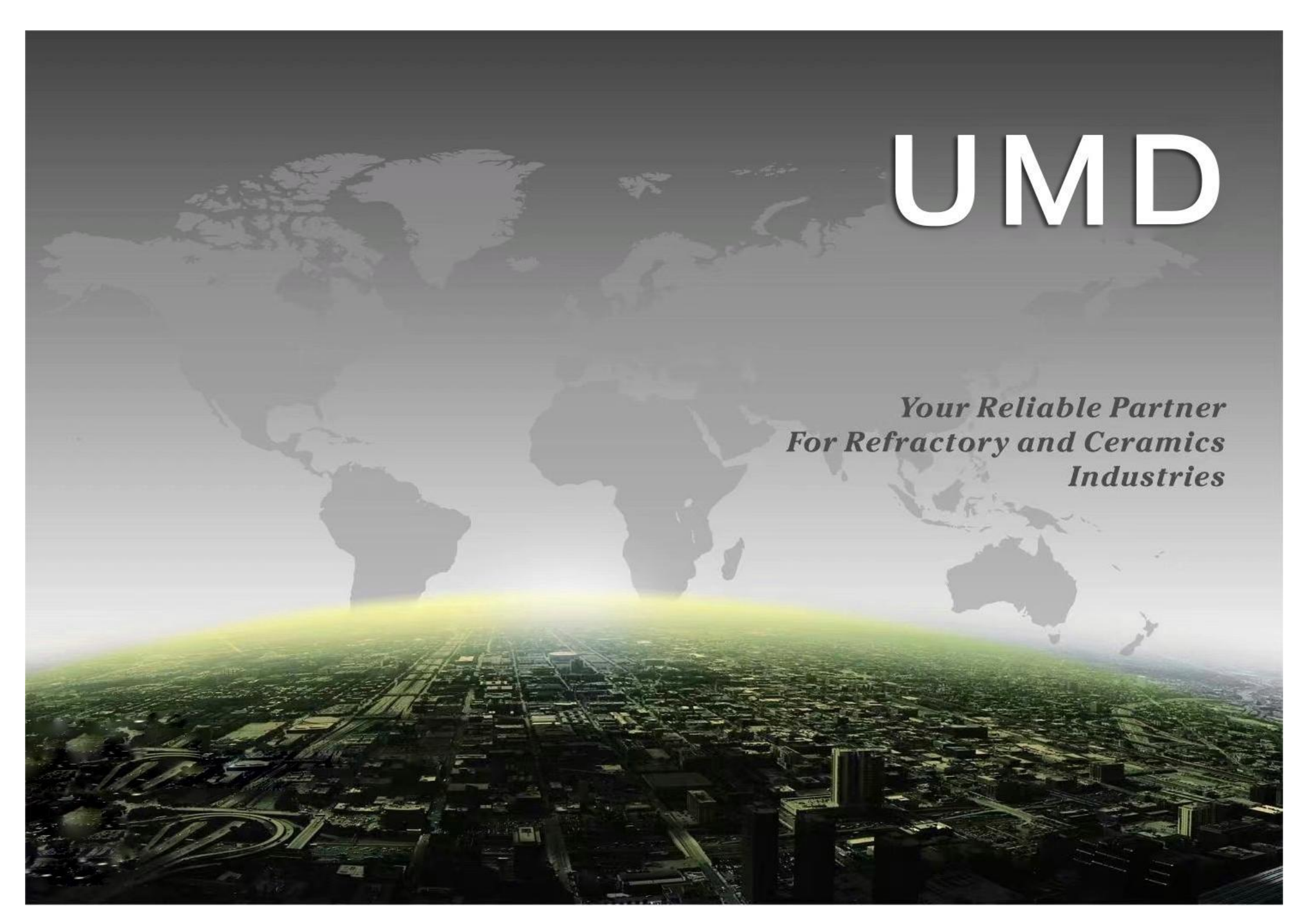




UMD

*Your Reliable Partner
For Refractory and Ceramics
Industries*



UMD a wholly owned Chinese Company which is located in Xingang Port nearby and a well known company in industrial minerals. It has a strong international force in the supply of industrial minerals, an active and reliable player in the manufacture and supply of superior quality industrial minerals. Alumina-silica based material and Basement material as well as a variety of fused minerals. Product quality, uniformity and consistency are at the heart of our entire organization, and remain the foundation from which UMD will meet the challenge of leadership in the future.

Markets Served

- **Refractory Raw Materials** – Mullite, Tabular and Fused Alumina (alumina), Brown Fused Alumina, Bauxite, and Fused Silica, Dead Burnt Magnesite, and Fused Magnesite.
- **Investment Casting Raw Materials** – Mullite sand, Fused Silica, Tabular and Fused White Alumina (alumina), Ethyl Silicate, Colloidal Silica water base.
- **Ceramic raw materials** – Mullite 45, Mullite 60, Kaolin
- **Steel Industries** – Compact Fused Alumina, Zircon Fused Mullite, Sintered (Fused) Spinel.
- **Metallurgical Field** – Mullite, Tabular and Fused White Alumina, Bauxite
- **Abrasive Materials** – Fused White Alumina and Brown Fused Alumina

Raw Materials for the Refractory, Ceramic & Steel Industry

WE BRING MINERALS FROM CHINA SOURCES TO YOUR DOOR WHEREEVER YOU ARE.

- Refractory Magnesite Product
- Kaolin Sand (Chamotte Sand)
- Light Weight Aggregate
- Calcined Bauxite
- Alu-Cast II
- White Fused Mullite
- Fused Zirconia-Mullite
- White Fused Alumina
- Tabular Alumina
- Brown Fused Alumina
- Refractory Cement
- Fused Silica
- Ceramic Proppants

Our work force is experienced, well qualified and dedicated to provide quality products to satisfy our customers, our people are constantly striving to save our customers money & provide the type of service that establish long term partnership.

A) Dean Burnt Magnesite Chinese Origin

The product is characterized by good sintering, dense crystal, high purity, and stable quality. It is mainly used for making various kinds of magnesite brick, for making metallurgical powder as ramming materials to be used on the wall and bottom of furnace, as gunning materials to mend the lining for the furnace.

SPEC. \ BRAND	GM-97	GM-95	GM-91	GM-90
MgO	97.0	95.0	91.0	90.0
SiO ₂	0.65	2.0	4.8	4.8
CaO	1.20	1.6	2.2	2.5
L.O.I	0.2	0.3	0.5	0.5
B.D(G/CM ³)	3.30	3.20	3.15	3.10

Standard Size: 0-1/1-3/3-5mm and other size as request

Packaging: In 1.25 Mt jumbo bag



B) Fused Magnesite

Fused magnesia grains are superior basic refractories. It is manufactured by means of electro-fusing and concentrating magnesite. It is characterized by complete structure, chemical stability, good hot strength and is applied in the field of metallurgical, building materials, chemical, national defense as well as household appliance.

SPEC. \ BRAND	FM-96	FM-97	FM-97C/S 2:1	FM-98
MgO	96.0	97.0	97.0	98.1
SiO ₂	1.50	1.20	0.75	0.45
CaO	1.50	1.20	1.50	0.85
Fe ₂ O ₃	0.90	0.70	0.70	0.40
L.O.I	0.30	0.30	0.30	0.10
B.D(G/CM ³)	3.40	3.50	3.50	3.50

Standard Size: 0-1/1-3/3-5mm and other size as request.

Packing: In 1 or 1.25Mt Bulk Bags.



Kaolin (Chamotte Sand)

高岭土

ITEMS	SUPER GRADE	FIRST GRADE
Al ₂ O ₃ MIN	45-46%	44-45%
SiO ₂ MIN	50-52%	50-53%
Fe ₂ O ₃ MAX	1.20%	1.50%
B.D. MIN	2.50G/CM ³	2.45G/CM ³

Standard Size: 0-1/1-3/3-5/5-8MM/100MESH/200MESH

Size Distribution: DIN,ASTM,BS,GB,ISO, all according to customers requirement.

Packaging: In 25kg Bags on pallets.

In 1.0mt bulk bags in container.



Light Weight Aggregate

轻质骨料

ITEMS	G-1.2	G-1.0	G-0.8
Al ₂ O ₃	45%	45%	45%
Fe ₂ O ₃	≤2.0%	≤2.0%	≤2.0%
Density g/cm ³	1.20	≥ 1.0	≥ 0.8
Moisture	≤ 0.5%	≤ 0.5%	≤ 0.5%

Standard Size: 0-1/1-3/3-5/0-5mm and other size as request

Size Distribution: DIN, TYLER, BS, GB, ISO

Packaging: In jumbo bag

Raw Material origin: Shanxi Province, China



Calcined Bauxite 煅烧矾土

ITEMS	Shaft Kiln Bxt	Round Kiln Bxt	Rotary Kiln Bxt
Spec.	Min/Max	Min/Max	Min/Max
Al ₂ O ₃	85%	86%	87%
Fe ₂ O ₃	2.0%	2.0%	1.8%
K ₂ O+Na ₂ O	0.25%	0.25%	0.25%
SiO ₂	9.0%	8.5%	7.5%
TiO ₂	4.5%	4.5%	4.0%
B.D	3.10g/cm	3.20g/cm	3.20g/cm

Standard Size: 0-1/1-3/3-5mm and other size as request

Size Distribution: DIN, TYLER, BS, GB, ISO

Packaging: In jumbo bag

Raw Material origin: Shanxi Province, China



ROUND KILN BAUXITE 倒焰窑矾土



ROTARY KILN BAUXITE 转炉矾土

Alu-Cast II 均质料

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United Mineral

ITEMS	SPECIFICATIONS(%)	SPECIFICATIONS(%)
Al ₂ O ₃	≥ 85.00	≥ 88.00
Na ₂ O+K ₂ O	≤ 0.40	≤ 0.40
SiO ₂	≤ 5.00	≤ 5.00
TiO ₂	≤ 4.50	≤ 4.50
Fe ₂ O ₃	≤ 1.80	≤ 1.80
Bulk Density(g/cm ³)	≥ 3.20	≥ 3.25

Standard Size: 0-1/1-3/3-5mm and other size as request

Size Distribution: DIN, TYLER, BS, GB, ISO

Packaging: In 1.25 Mt jumbo bag

Raw Material origin: Henan Province, China



White Fused Mullite 白莫来石

ITEMS	SPECIFICATIONS(%)	TYPICAL VALUES(%)
Al ₂ O ₃	70-77	75.30
SiO ₂	22-29	24.08
Fe ₂ O ₃	0.1 5Max	0.08
K ₂ O+ Na ₂ O	0.4 Max	0.26
CaO+MgO	0.3 Max	0.28
Bulk Density (g/cm ³)	2.9min	3.10
Apparent Porosity (%)	5.0 max	4.5

Standard Size: 0-1/1-3/3-5mm and other size as request

Size Distribution: DIN, TYLER, BS, GB, ISO

Packaging: In 1.25 Mt jumbo bag

Raw Material origin: Henan Province, China



Fused Zirconia-Mullite 锆莫来石

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United Mineral

The Fused Zirconia -Mullite is a basic raw materials for making high quality Al-Zr-C sliding plates and long nozzle for continuously casting in metallurgical industries as well as for applications in glass furnace industries.

Index	Brand	GMZ-33	GMZ-35	GMZ-37
		Standard Value	Standard Value	Standard Value
Chemical Composition (%)	ZrO ₂ +HO ₂	≥33	≥35	≥37
	Al ₂ O ₃	46-50	46-49	44-47
	SiO ₂	16-19	16-19	16-19
	Fe ₂ O ₃	≤0.3	≤0.3	≤0.3
Bulk Density(g/cm ³)		≥3.6	≥3.6	≥3.6
Apparent Porosity(%)		≤3.0	≤3.0	≤3.0

Standard Size: 0-1/1-3/3-5mm and other size as request

Packaging: In 1.25 Mt jumbo bag



Synthetic High Purity Mullite 合成莫来石

The product is made by adopting imported industrial alumina and high quality kaoline as high purity raw materials through super-fine smash and super-high temperature sintered, featuring whiteness in color and ,high purity, good crystal growth and thermal shock resistance.

ITEMS	JMS-75	JMS-70	JMS-60
Al ₂ O ₃	≥ 75	71-73	59-61
SiO ₂	≤ 24.5	≤ 29	≤ 41
Fe ₂ O ₃	≤ 0.3	≤ 0.35	≤ 0.5
R ₂ O	≤ 0.5	≤ 0.6	≤ 0.8
B.D. g/cm ³	≥ 2.85	≥ 2.80	≥ 2.70
Apparent Porosity	≤ 3	≤ 3	≤ 3
Crystal Phase	≥ 93	≥ 96	
Water Absorption	≤ 0.5	≤ 0.5	≤ 0.5



合成莫来石70

Standard Size: 0-1/1-3/3-5mm and other size as request
Packaging: In 1.25 Mt jumbo bag

Sintered Pure Natural Mullite 烧结莫来石

ITEMS	M45	M60	M70
Al ₂ O ₃	42-45%	58-62%	68-73%
SiO ₂	49-55%	35-38%	22-25%
Fe ₂ O ₃	≤ 0.8%	≤ 1%	≤ 1%
K ₂ O	≤ 1.3%	≤ 0.3%	≤ 0.3%
Na ₂ O	≤ 0.2%		
Density g/cm ³	2.5-2.65	≥ 2.70	≥ 2.75
Water Absorption	≤ 2%	≤ 3%	≤ 3%
Refractoriness	≥ 1790℃	≥ 1850℃	1850℃

Standard Size: 0-1/1-3/3-5mm and other size as request

Packaging: In 1.25 Mt jumbo bag



烧结莫来石45



烧结莫来石60

White Fused Alumina

白刚玉

ITEMS	SPECIFICATIONS(%)	TYPICAL VALUES(%)
Al ₂ O ₃	≥99	99.14
Na ₂ O	≤0.4	0.35
SiO ₂	≤0.4	0.12
Fe ₂ O ₃	≤0.2	0.01
Major Phase	α-Al ₂ O ₃	
Crystal System	hexahedron	
Colour	white	
True Density(g/cm ³)	≥3.95	
Packing Density(g/cm ³)	1.75-1.95	
Moh' s Hardness	9	
Linear Expansibility(1/°C)	8.3 × 10 ⁻⁴	

Standard Size: 0-1/1-3/3-5mm and other size as request

Packaging: In 1.25 Mt jumbo bag



Tabular Alumina

板状刚玉

United Mineral

The high temperature fast-sintered corundum(tabular alumina)is made by adopting the imported industrial alumina as starting material, without any additives, fast sintered at super-high temperature(>1900℃)the product has a close packing structure of corundum grain size in the range from 1-2um to 100-200um with cross bonding and homogenized distribution ,resulting in maximum packing density. It is characterized by high refractoriness, low alkali, high bulk density, high strength, high purity and complete crystal tabularization. It has been widely used in metallurgy (slide gate, nozzle, etc),ceramics, chemical and glass industries. It is the preferred material to substitute for imported sintered alumina.

ITEMS	SPECIFICATIONS(%)	TYPICAL VALUES(%)
Al ₂ O ₃	≥99	99.5
Na ₂ O	≤0.3	0.20
SiO ₂	≤0.2	0.09
Fe ₂ O ₃	≤0.1	0.07
Fe Magnetic	≤0.02	0.01
B.D. g/cm ³	≥3.50	3.59
Apparent Porosity	≤4	3.00
Water Absorption	≤1.0	0.7



Brown Fused Alumina

棕刚玉

ITEMS	SPECIFICATIONS(%)	SPECIFICATIONS(%)
Al ₂ O ₃	95.00% min	97.00% min
SiO ₂	1.50% max	0.80% max
Fe ₂ O ₃	0.50 max	0.20 max
TiO ₂	3.00 max	2.00 max
Bulk Density (g/cm ³)	3.80 g/cm ³ min	3.80 g/cm ³ min

Standard Size: 0-1/1-3/3-5mm and other size as request

Size Distribution: DIN, TYLER, BS, GB, ISO

Packaging: In 1.25 Mt jumbo bag

Raw Material origin: Henan Province, China



Compact Fused Alumina

致密刚玉

United Mineral

Compact Fused Alumina is a new high-grade raw refractory material, which is well resistant to acid alkali. It possesses good property of resistance to abrasion, erosion and volume stability at high temperature. It is widely used in metallurgical, ceramic, chemical industry and etc. It is a high-quality raw material to make rammed concrete of blast furnace iron notch, castable and various corundum product.

PROPERTY	GRAND	CFA-1		CFA-2	
		GRIT > 0.1MM	FINE ≤ 0.1MM	GRIT > 0.1MM	FINE ≤ 0.1MM
CHEMICAL COMPOSITION	Al ₂ O ₃ %, ≥	99	98.6	99	98.6
	SiO ₂ %, ≤	1.0	1.0	1.0	1.0
	Fe ₂ O ₃ %, ≤	0.15	0.3	0.1	0.1
	TiO ₂ %, ≤	0.1	0.1	0.1	0.1
	CaO %, ≤	0.1	0.1	0.1	0.1
	MgO %, ≤	0.1	0.1	0.1	0.1
	Na ₂ O %, ≤	0.1	0.1	0.1	0.1
	C %, ≤	0.12	0.14	0.12	0.09
PHYSICAL PORPERTY	MAGNETIC MATTER%≤	0.05	0.1	0.005	0.005
	APPARENT POROSITY%≤	2		2	
	BULK DENSITY ≥ G/CM ³	3.90		3.90	
	TRUE DENSITY ≥ G/CM ³	3.95		3.95	





Sintered Magnesia-Alumina Spinel (Alumina Base)

烧结镁铝尖晶石

ITEMS	GRAND	JMA-66		JMA-78	
		SPEC.(%)	TYPICAL VALUES(%)	SPEC.(%)	TYPICAL VALUES(%)
Al ₂ O ₃		64-66		76-79	
MgO		32-34		21-24	
CaO		≤ 0.5	0.29	≤ 0.35	0.19
SiO ₂		≤ 0.3	0.15	≤ 0.25	0.12
Na ₂ O		≤ 0.02	0.007	≤ 0.10	0.04
Fe ₂ O ₃		≤ 0.25	0.12	≤ 0.2	0.12
Fe Magnetic		≤ 0.02	0.01	≤ 0.02	0.01
Bulk Density		≥ 3.25	3.35	≥ 3.30	3.35
Apparent Porosity		≤ 3	1.2	≤ 3	1.0
Water Absorption		≤ 1.0	0.5	≤ 0.8	0.3



Standard Size: 0-1/1-3/3-5mm and other size as request
Packaging: In 1.25 Mt jumbo bag



Refractory Cement

耐火水泥

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United Mineral

ITEMS	CA50F	A600	A700	A900	CA50R
Al ₂ O ₃	≥50.0%	≥50.0%	≥51.0%	≥53.5%	≥52.0%
Fe ₂ O ₃	≤2.5%	≤2.5%	≤2.5%	≤2.5%	≤2.5%
SiO ₂	≤8.0%	≤7.8%	≤7.5%	≤5.5%	≤7.0%
R ₂ O	≤0.4%	≤0.4%	≤0.4%	≤0.4%	≤0.4%
325mesh sieve residue	≤20%	≤15%	≤12%	≤8%	≤8%
Blaine specific surface area(m ² /kg)	≥300	≥300	≥320	≥350	≥350
Flexural strength (Mpa)	6h	—	—	—	≥3.0
	1d	≥5.5	≥6.0	≥6.5	≥8.0
	3d	≥6.5	≥7.0	≥7.5	≥10.0
Compression strength(Mpa)	6h	—	—	—	≥30
	1d	≥40	≥45	≥55	≥72
	3d	≥50	≥55	≥65	≥82
Setting time Initial(min)	≥30	≥45	≥60	≥90	≥30
Setting Time Final(h)	≤6	≤6	≤6	≤6	≤6

Packing: in bulk bag

Application: refractory material



ITEMS	SPEC
SiO ₂ min	99.90–99.98%
Fe ₂ O ₃ max	0.002%
Al ₂ O ₃ max	0.005%
Moisture max	0.10%

Packing: 25kg small bag packed into 1.2Mt pallet shrink wrapped

Application: high-grade refractory materials, electrical industry.



ITEMS	SPEC
Cr ₂ O ₃ min	99.20%
Fe ₂ O ₃ min	0.1%
Na max	0.1%
H ₂ O min	0.2%
Water-soluble salt max	0.3%
Residue on sieve 45μm max	0.3%
Cr ₆	270ppm
Ph value	6–8

Application: excellent refractory material. Make complex refractory material directly in fire brick or used in electric melting line.

Package: in bulk bag or according to customers.

Storage: the product should be stored in a dry place



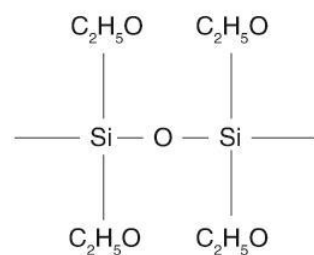
Ethyl Silicate

硅酸乙酯

ITEMS	ES-28	ES-32	ES-40
Specific Gravity d420°C	0.934-0.936	0.975-0.985	1.045-1.065
SiO ₂	28%	30-32%	40-42%
Acidity hc	≤0.01	≤0.02	≤0.02
Low boiling point (<110°C)	≤2%	≤2%	≤2%
Gum deposit time	/	/	15 minutes min

Application: precision casting, anticorrosive paint, and ceramic field

Package: in 200kg iron drum



结构式

Colloidal Silica

硅溶胶

ITEMS	830	1430
SiO ₂	30 ± 1 %	30 ± 1 %
Na ₂ O	0.30% max	0.30% max
PH Value	9-10.5	9-10
Viscosity	≤6.0x10 ⁻³ 25°C Pa · S	<7 25°C Pa · S
Appearance	milk white semitransparent liquid	milk white semitransparent liquid
Density	1.20 ± 0.01 g/cm ³	1.19 ± 0.01 g/cm ³
Average grain diameter	8-15 μm	10-15 μm
Stability	1 year	1 year

Packing: 250kg plastic barrel

Storage: Store in cool and ventilated conditions between 0°C and 40°C.

Application: precision casting, refractory material and textile industry



