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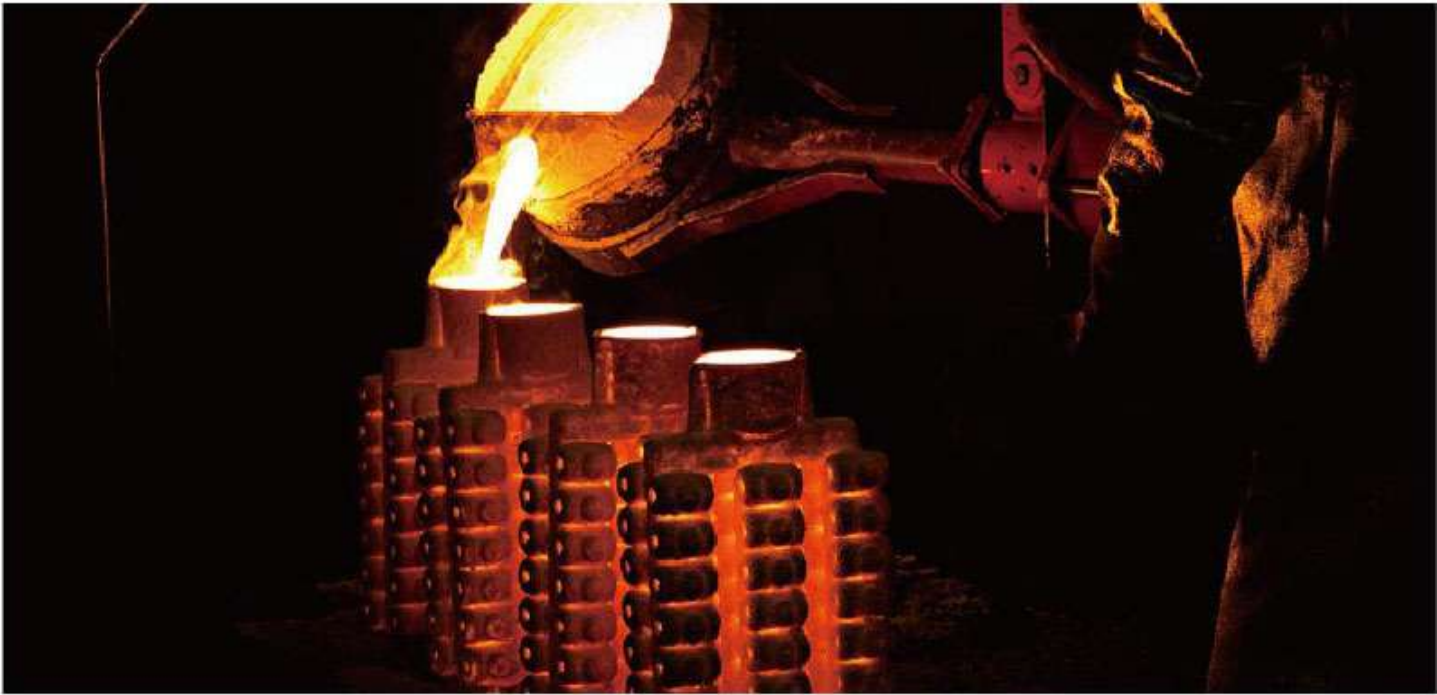
Http://www.obtcasting.com



# O.B.T GROUP



<http://www.obtceasting.com>



## Company Profile

OBT has been manufacturing and supplying foundry and refractory materials for more than 20 years. Our stable quality and good after-sales service help us to obtain high feedback from European, South America, Japan, Thailand, Korea, Taiwan, Vietnam, Cambodia, Philippine, Malaysia, etc.

Our product range:

Chamotte sand

Colloidal Silica

Pattern Wax

Chemical additive

Application:

Precision Investment Casting

Lost Wax Casting

Refractory Bricks Manufacturing

Coatings industry

Textile industry  
Paper industry  
Petroleum industry  
Ceramic industry  
Electronic polishing industry

Our advantage:

- No.1 largest mullite sand and foundry materials manufacturing and supplying plant in China
- 200,000tons–500,000tons production capacity
- 8 own calcining kilns , maximum 10% cost reduction benefit to customers
- 5 days of the minimum delivery period
- No dust,Low abrasion, higher hardness, uniform particle size distribution makes it the most suitable to the manufacturing process.

After 20 years of development, we have become a world renowned company which meet the needs and solves the problems of customers with foundry materials. We will focus on listening to the changing needs of customers and using the power of our core values to be better. We welcome new and old customers contact us for future business and mutual benefits.



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## Chamotte Sand/Flour

### Product introduction and application:

The chamotte sand has high aluminum content, low iron content, small dust, reasonable particle size distribution, high bulk density, high temperature strength and low residual strength, no dust.

Available: 10–16M, 16–30M, 30–60M, 60M, 70M, 100M, 200M, 325M (can be customized).

Mainly used in lost wax casting, refractory materials, precision casting, aluminum silicate refractory fiber and ceramic industry.



OBT-22S



OBT-35S



OBT-200M

Chamotte Sand						
The Physical And Chemical Indicators						
Grade	Fe <sub>2</sub> O <sub>3</sub> % max	Al <sub>2</sub> O <sub>3</sub> % min	SiO <sub>2</sub> % min	TiO <sub>2</sub> % max	B.Dg/ccm min	Refractoriness °C
A. Prime Grade	1.20	46.00	50.50	0.70	2.55	1750
High Grade	1.50	44.00	51.50	0.90	2.53	1750
Normal Grade	2.30	43.00	52.50	1.00	2.50	1730
200 mesh/325 mesh						
200 mesh/325 mesh	93% min					
22S(16---30 mesh)						
16-12 mesh	1.18-1.70mm				25-35%	
20-16 mesh	0.85-1.18mm				40-50%	
30-20 mesh	0.60-0.85mm				<25%	
50-30 mesh	0.30-0.60mm				0.02%	
—50 mesh	0.00-0.30mm				0.04-0.06%	
35S(30-60)mesh						
50-30 mesh	0.30-0.60mm				65-75%	
80-50 mesh	0.18-0.30mm				1.00%	
—80 mesh	0.00-0.18mm				0.04-0.06%	

## Zircon Sand

### 1. Product introduce and application:

Zircon sand Description:

Zircon sand, also known as zircon sand and zircon, is a mineral composed mainly of zirconium silicate ( $ZrSiO_4$ ). Pure zircon sand is a colorless transparent crystal. It is often dyed yellow, orange, red, brown, etc. due to different origins and different types and types of impurities. The crystal structure is tetragonal and has a quadrangular pyramid shape. The main chemical composition is  $ZrO_2$ ;  $SiO_2$ , and a small amount of  $Fe_2O_3$ ,  $CaO$ ,  $Al_2O_3$  and other impurities. The melting point fluctuates with the impurity in  $2190\sim 2420^\circ C$ .

Applications:

Foundries, Investment Casting Industries, Casting coatings.  
Special Refractories Industries, Refractory Castable.  
Ceramic Industries.

### 2. Characteristic :

Dense structure, High temperature resistance  
High thermal conductivity, Acid and alkali resistance  
Good stability, Low thermal expansion coefficient



## Fused Silica

### Product introduction and application:

Fused Silica Products

Natural high purity quartz its microstructure at high temperature becomes the amorphous structure of the fused silica.

Is molten particles and silicon powder with high quality fused silica, through special crushing grinding process, the product high purity, controllable particle size distribution.

The main characteristics of fused silica are:

- High temperature resistance, good whiteness, melting point  $1750^\circ C$ .
- Excellent low electrical insulation.
- High hardness, high resistance to wear.
- Low expansion coefficient is low.

●Chemical properties of stability, in addition to react with hydrogen fluoride ether and alkali, does not react with any other material.

Photovoltaic materials, electronic materials, refractory materials, investment casting, high voltage electrical insulation materials, paint coating, silicone rubber, special ceramics, advanced materials, fine chemical industry, aerospace and other industries.



OBT 0-1



OBT 100-200



OBT 50-100

## Colloidal Silica

### 1.Product introduction and application:

Normal series of products using water glass synthesis process, with good stability, low turbidity, the advantages of small batch differences, etc.

Mainly used in precision casting, ceramic polishing, batteries, coatings and other industries. According to different particles divided into small particle size Colloidal Silica and large particle size Colloidal Silica.



OBT-830



OBT-1430



OBT-930



## 2.Specifications of Colloidal Silica

Technical Parameters	Small Particle Sizes Types		
	OBT-830	OBT-1430	OBT-930
SiO <sub>2</sub> %	29~31	29~31	26~28
Particles size	7~10	10 ~ 20	10 ~ 14
pH value ( 25℃ )	9.0~10.5	9.0~10.5	9.5~10.8
Viscosity ( 25 °C,mm2/s )	≤6.5	≤6.5	≤7
Custom-Made Product	According to customer requirements, the pH value,viscosity concentration, stabilizer type and other indicators, customize the special specification products for you.		

## Nickel Block

Material	Ni	Co	C	Si	Fe	Cu	Zn		
Purity	99.989%	0.0012	0.0016	0.0016	0.0018	0.017	0.0061	0.0001	0.0005
Material	As	Cd			Mn	Mg	Impurities		Bi
Purity	0.0005	0.00025	0.0001	0.00014	0.00045	0.00053	0.01	0.00056	0.00025

## Ferro Molybdenum

Grade	Chemical Elements Contents					
	Mo	Si(Max)	C(Max)	P(Max)	S(Max)	C1(Max)
FeMo60	55.0-65.5	1.0	0.10	0.05	0.10	0.5
FeMo60Cu1	55.5-65.0	1.5	0.10	0.05	0.10	1.0
FeMo60Cu1.5	55.0-65.0	2.0	0.50	0.05	0.15	1.5
FeMo70	65.0-75.0	1.5	0.10	0.05	0.10	0.5
FeMo70Cu1	65.0-75.0	2.0	0.10	0.05	0.10	1.0
FeMo70Cu1.5	65.0-75.0	2.5	0.10	0.10	0.20	1.5



Nickel Block



Ferro Molybdenum



## Wetting Agent

Chinese name of ingredients	Concentration or concentration range (ingredient percentage)	Cas No.
polyoxyethylene alkanes	25%–40%	9003–11–6
polyoxyethylene ether	25%–40%	9002–92–0
sulfonate	25%–40%	54–77–3
AEO	25%–40%	9064–14–6
Water	25%–40%	7732–185



OBT-R01

## Defoaming Agent

Single Product/mixture	Mixture
Organic acids (citric acid, sulfonic acid, oxalic acid, etc.)	10–35%
Inorganic	16–25%
Organic amine	1–5%
Suppress fog	1–2%
slow agent	2–4%



OBT-R02

## Oxidized Glue



OBT-866

Oxidized glue ensures that the surface layer does not peel off, does not fall off, does not bulge, and does not produce cracks when wet.

Dosage: 100 kg of silica sol for the surface layer, 10 kg of oxidized gel.

## Strengthening Agent

Strengthening agent: the main job is to make the expansion coefficient of the surface layer and the second layer uniform at high temperature, and the tension caused by thermal expansion and contraction, to relieve the stress caused by the impact of molten steel on the shell during the casting process.

● Dosage of Strengthening agent: Add 10–15 kg of enhancer to 100 kg of surface powder, the enhancer can greatly save the amount of zirconium powder!

● Surface viscosity: No. 4 cup, 45–60 seconds, No. 5 cup, 25–28 seconds.

● The surface layer does not need to add wetting agent and Defoaming Agent.

● Subsequent grouting can be done by adding oxidized glue and reinforcement according to the normal proportion.

● This solution can change the zirconium powder particles, and the molecular coverage can be changed microscopically. Effectively prevent cracks, rat-tail lines, burrs, shell cracking, and improve collapsibility!



OBT-868

