

Purging Plugs System Products

透 气 砖 产 品



Factory VR



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COMPANY INTRODUCTION 公司介绍

Jiaozuo Jinxin Hengtuo Advanced Materials Co., Ltd. is a well-known manufacturer of refractory materials in the fields of industrial furnaces, steelmaking and ironmaking, sintering and pelletizing, solid waste treatment, energy conservation and environmental protection in China, with a registered capital of 100.58 million yuan. The market share of its flagship products, anchor bricks and high-temperature air burners, is over 75%. The company's main business is to develop, produce and sell various shaped and unshaped refractory functional products, and undertake the overall contracting business of design, installation, construction, use, maintenance and technical services for refractory materials for the steel, nonferrous metals, petrochemical, power and other industries. On September 22, 2016, the company was listed on the "New Third Board" (stock abbreviation: Jinheng New Materials; stock code: 839391).

Relying on technological progress and scientific and technological innovation, Jinxin Hengtuo has successfully provided high-quality products and system solutions for more than 3,000 furnaces at home and abroad, becoming an enterprise with the most complete products, technical strength and supporting capabilities for refractory materials for industrial furnaces. The company's products are domestically leading and world-class in the fields of refractory materials for industrial furnaces, refractory materials for solid waste treatment, and refractory materials for molten iron. The company's customers include nearly 100 large and medium-sized domestic enterprises such as Baosteel Co., Ltd. and Shougang Group, and its products are exported to many countries and regions such as the United States, Germany, Russia, and India.

The company is a national high-tech enterprise, a national-level specialized "little giant" enterprise, a national green factory, a postdoctoral research workstation, a single champion enterprise in Henan's manufacturing industry, a "gazelle" enterprise in Henan Province, a demonstration enterprise for the digital transformation of Henan's manufacturing industry, and a listed reserve enterprise in Henan Province. It has built the "Henan Industrial Furnace Refractory Engineering Technology Research Center" and the "Henan Enterprise Technology Center". The company's functional refractory workshop has been recognized as the "Henan Intelligent Workshop" and the drafting unit of the national standard for "Refractory Castables for Steel Rolling Heating Furnaces". The company has one fully automatic unshaped refractory production line with an annual output of 100,000 tons, one functional high-end unshaped refractory production line with an annual output of 50,000 tons, one functional shaped refractory product production line with an annual output of 40,000 tons, one functional breathable ceramic production line with an annual output of 10,000 tons, one refractory prefabricated production line with an annual output of 20,000 tons, one lightweight refractory brick production line with an annual output of 30,000 tons, one plastic production line with an annual output of 5,000 tons, and one high-performance honeycomb production line with an annual output of 20,000 cubic meters.

The company has passed ISO9001 quality system, ISO14001 environmental management system, and OHSAS18001 occupational health and safety management system certification. The company focuses on independent research and development and innovation of high-temperature industrial refractory technology. It has obtained more than ten invention patents for high-temperature industrial refractory materials and more than 80 utility model patents. The company has led and participated in the preparation of more than 10 national, industry and group standards. It has established long-term strategic scientific research cooperation relationships with many universities such as Beijing University of Science and Technology, Wuhan University of Science and Technology, and Xi'an University of Architecture and Technology.

The company will continue to uphold the development concept of "continuously creating value for customers with better quality, more professional and more complete services" and take "leading technology and sustainable development" as its direction to build a refractory enterprise group with international competitiveness.





RESEARCH DEVELOPMENT 研究开发

Jinxin Hengtuo provides leading technology and system solutions in the refractory industry. It is committed to providing customers with knowledge, experience, products and services through continuous technological innovation and new product research and development, helping them solve problems that arise in the development process, and thus achieving sustainable development together with customers.



INTELLIGENT MANUFACTURING 智能制造

Intelligent production equipment, large-scale packaging, unmanned palletizing. Build a comprehensive industrial information platform to achieve real-time analysis of various data in the production system, and support online service functions such as fault warning, remote control, and quality diagnosis.



倾斜式搅拌机



中控室



高温电窑



智能配料系统



自动包装机器人



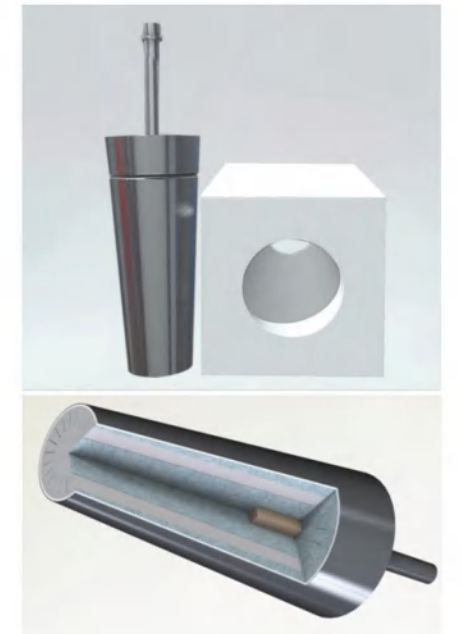
AGV叉车

PRODUCT INTRODUCTION 产品介绍

This product is our company's leading high-tech product, made of chrome corundum or corundum-spinel, and the brick type is directional slit type. This product uses high-purity synthetic raw materials, ultrafine powder and high-performance additives, and is made by stirring and curing in a constant temperature and humidity environment, and high-temperature calcination and other advanced processes. It has the advantages of good safety, high blowing rate, long life, and large air permeability. It is the first choice for post-furnace argon blowing, LF, RH, VD, VOD, CAS-OB and other equipment bottom argon blowing processes.

The slit-type purging plugs produced by our company have stable quality and complete varieties. It can be produced according to user requirements, and can provide supporting services for related refractory materials such as set bricks, seating blocks, and caulking materials. At the same time, it can design and select purging plugs products for users to ensure the optimal use effect of the products.

Slit-Type purging plugs and seating blocks

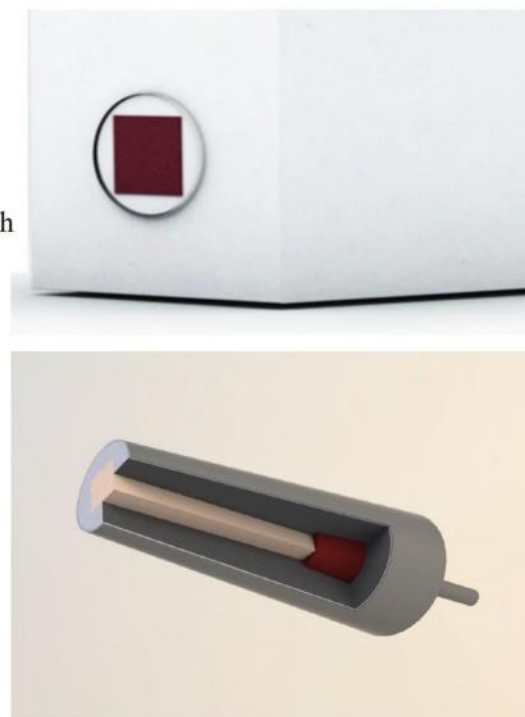


Item	Technical data					
	T-90	T-92	TC-93	TC-95	Z-06	ZC-3
$Al_2O_3 + MgO$, %	90	92	-	-	90	-
$Al_2O_3 + Cr_2O_3 + MgO$, %	-	-	93	95	-	93
Apparent porosity, %	20	19	20	19	20	20
Bulk Density g/cm^3	3.1	3.1	3.1	3.1	3	3
Cold compressive strength, MPa	100	100	120	120	80	80
Gas flow rate (at 0.4MPa pressure differential)	10-40 m^3/h					

The gas flow rate can be designed according to customer requirements, and each porous plug is individually tested for gas flow rate before shipment, Z06 and ZC3 are seating blocks.

Porous Purging Plugs

The porous purging plugs produced by our company are made of high-purity raw materials, optimized matrix composition, machine pressing, and high-temperature firing. They have the advantages of clean molten steel, high blow-through rate, no oxygen burning, long life, and good safety. Porous purging plugs use the non-tight stacking between aggregates to produce a large number of through pores with apertures distributed within a certain range, solving the problem of traditional slit-type purging plugs that are easy to penetrate steel, have low blow-through rate, and low life. It is mainly used in the bottom argon blowing process of LF, LF-VD, CAS-OB and other refined steel ladles and ordinary continuous casting ladles.



Item	Technical data
$\text{Al}_2\text{O}_3 + \text{MgO} + \text{Cr}_2\text{O}_3$ (%)	≥ 93
Apparent porosity, %	26.5
Bulk Density (g/cm^3)	2.72
Cold compressive strength, MPa	55

Seating blocks for steel ladle nozzles

Our company's S series seating blocks for steel ladle nozzles are made of high-purity raw materials and are designed based on the principle of the most compact stacking of castables. They have the characteristics of high strength, good corrosion resistance, erosion resistance and good thermal shock stability.



Item	S01	S03
$\text{Al}_2\text{O}_3 + \text{MgO} + \text{Cr}_2\text{O}_3$ (%) $\geq$	85	93
Apparent porosity (%) $\leq$ 1500°C×3h	17	16
Modulus of rupture (Mpa) $\geq$ 1500°C×3h	10	12
Compressive strength(Mpa) $\geq$ 1500°C×3h	80	100

PRODUCT INTRODUCTION 产品介绍

Dual-Core Monolithic Purging plugs

The JH-TW series ladle bottom argon blowing dual-core monolithic purging plugs break through the traditional structural idea of one base block with one core, and set two cores in one argon blowing base block. The two cores can be used independently or simultaneously. It can meet the customer's requirements for greatly improving the life of the ladle or greatly improving the refining air permeability. The core can be in the form of slit-type or porous-type to meet the different usage needs of customers.



Item	Technical data					
	T-90	T-92	TC-93	TC-95	Z-06	ZC-3
Al ₂ O ₃ +MgO , %	90	92	-	-	90	-
Al ₂ O ₃ +Cr ₂ O ₃ +MgO , %	-	-	93	95	-	93
Apparent porosity , %	20	19	20	19	20	20
Bulk Density, g/cm ³	3.1	3.1	3.1	3.1	3	3
Cold compressive strength , MPa	100	100	120	120	80	80
Gas flow rate (at 0.4MPa pressure differential)	10-40 m ³ /h					
The gas flow rate can be designed according to customer requirements, and each porous plug is individually tested for gas flow rate before shipment.Z06 and ZC3 are seating blocks.						

Corundum self-flowing repairing mix

The self-flowing corundum repairing mix developed by our company are divided into chrome corundum and corundum-spinel. Both are made of high-purity corundum as the main material, with composite ultrafine powder and a variety of additives. The main features are good high-temperature performance, convenient construction, automatic degassing, and uniform organizational structure. They can be used for the masonry and repair of air bricks, seat bricks, nozzle seat bricks, and bottom of the bag, as well as the casting of the outer lining of the RH insertion pipe and the triangular area of the top of the electric furnace.



Item	Brand	Chrome corundum		Corundum-spinel	
		LHC-1	LHC-2	LHS-1	LHS-2
Chemical composition (%)	Al ₂ O ₃	≥80	≥88	≥88	≥90
	SiO ₂	≤2.5	≤2.0	--	--
	MgO	--	--	≥1.0	≥1.2
	Cr ₂ O ₃	≥1.5	≥1.5	≥1.5	≥1.5
Bulk Density g/cm ³	110°C×24h	≥2.90	≥2.95	≥2.90	≥2.95
Compressive strength MPa	110°C×24h	≥30	≥40	≥30	≥40
Modulus of rupture (MPa)	110°C×24h	≥7	≥8	≥6	≥7
Fluidity (mm)		≥180	≥180	≥180	≥180

PRODUCT >>>
INTRODUCTION

产品介绍

Chrome-Corundum Mortar

Chrome corundum mortar is made of chromium oxide powder and corundum powder with binders and additives, and is made by mixing with a dry powder mixer. It has high refractoriness and can be used at high temperatures of 1800 degrees. It is mainly used for slide gate, nozzles, and purging plugs core and seating blocks in the steelmaking industry. It has stable high-temperature performance, good volume stability, and good anti-erosion and anti-scouring effects. It has high strength after high-temperature sintering. Chrome refractory mortar can also be used for the lining of high-temperature kilns and the coating of the burners, which can buffer the thermal shock and scouring of the lining.



Technical data	
Al ₂ O ₃ (%)	≥90
Cr ₂ O ₃ (%)	≥4
SiO ₂ (%)	≤2
Bonding strength 110°C×24h (Mpa)	≥3
Bonding strength1500°C×3h (Mpa)	≥5