



公司名称：内蒙古圣泉科利源新材料科技有限公司  
Company Name: Inner Mongolia Shengquan Keliyuan New  
Material Technology Co., Ltd.  
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内蒙古圣泉科利源新材料科技有限公司  
Inner Mongolia Shengquan Keliyuan New Material Technology Co., Ltd.



SMEETING  
MATERIAL  
PRODUCTION BASE  
熔炼材料生产基地





## | 公司概况 Company Overview

内蒙古圣泉科利源新材料科技有限公司由济南圣泉集团与内蒙古科利源新材料有限公司共同出资建立，是圣泉集团重点战略投资项目，年产15万吨铸造用合金生产基地，主要产品有各种类型球化剂、蠕化剂、孕育剂、及对应的包芯线产品，硅铁、锰铁、熔铁、硅钡合金、稀土硅合金、稀土金属、及稀土储氢材料。圣泉科利源是国内规模最大的铸造用特殊合金及冶金产品生产商，依托领先的技术优势和原材料基地优势为客户提供优质的产品和专业的技术服务，依托庞大的技术储备为客户提供专业的铸造生产解决方案。

Inner Mongolia Shengquan Keliyuan New Material Technology Co., Ltd. is jointly established by Jinan Shengquan Group and Inner Mongolia Keliyuan New Material Co., Ltd. It is a key strategic investment project of Shengquan Group and also a production base with an annual output of 150,000 tons of casting alloy. Its main products include various types of spheroidizing agents, creeping agents, inoculants, and corresponding cored wire products, ferrosilicon, ferromanganese, ferrochrome, silicon-barium alloy, rare earth silicon alloy, rare earth metal and rare earth hydrogen storage materials. As the largest manufacturer of special alloys and metallurgical products for casting in China, Shengquan Keliyuan has been dedicated to providing customers with high-quality products and professional technical services and providing customers with professional casting production solutions based on the leading technical advantages and raw material base advantages.



# 企业荣誉 Enterprise Honors



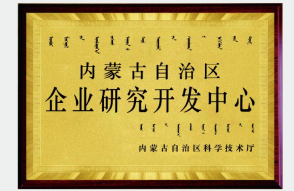
行业贡献奖  
Industry Contribution Award



# 研发团队 R&D Team



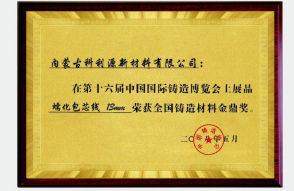
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Tong Siyi, Team Leader  
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圣泉集团技术顾问  
Technical Consultant of Shengquan Group  
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Executive Director of China Energy Society  
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Member of the Fourth Editorial Board of Rare Earths  
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Director of Rolling Society of the Chinese Society for Metals  
中国金属学会包磁冶金与强磁材料科学学会委员  
Member of Society of Electromagnetic Metallurgy and Materials Science with High Magnetic Field of the Chinese Society for Metals  
塑性理论与新技术开发学术委员会副主任  
Deputy Director of Academic Committee on Plasticity Theory and New Technology Development  
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京津黄鲁铸造产业联盟副秘书长(兼)  
Deputy Secretary General of Beijing-Tianjin-Hebei-Shandong Foundry Industry Alliance (concurrently)  
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内蒙古自治区企业研发中心  
Inner Mongolian Autonomous Region Enterprise R&D Center



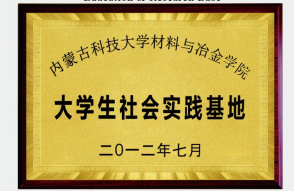
内蒙古自治区高新技术企业  
Inner Mongolian Autonomous Region High-tech Enterprise



全国铸造材料金鼎奖  
National Golden Tripod Award for Foundry Materials



内蒙古科技大学产学研基地  
Inner Mongolia University of Science and Technology Industry, Education & Research Base



内蒙古科技大学材料与冶金学院  
大学生社会实践基地  
IMUST University Student Social Base



◆ 化学分析  
Chemical analysis

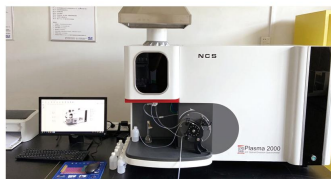


◆ 金相显微镜  
Metallographic microscope



◆ 碳硫分析仪  
Carbon-sulfur analyzer

◆ ICP分析  
ICP analysis



## 检测手段 Test means



◆ 第三方检测  
Third-party testing

◆ X荧光分析仪  
X-ray fluorescence analyzer



## 稀土镁硅铁合金 Rare earth magnesium ferrosilicon alloy



### Product description:

It has low MgO content, stable reaction, high Mg absorption rate, stable composition, small composition range, small segregation, uniform microstructure, good spheroidizing effect, less addition, less oxide and less slag inclusion; complete varieties, which can be used under different production methods.

### 产品说明:

MgO含量低, 反应平稳, Mg吸收率高, 成分稳定, 成分范围小、偏析小、组织均匀, 球化效果好, 添加量少, 氧化物少, 夹杂少; 且品种齐全, 能适应不同生产方式下使用。

### Application scope and use method:

It is suitable for the production of various nodular cast irons. The RE-Mg-Si-Fe alloy is placed at the bottom of the ladle, covered with inoculant and covering agent, and the molten iron is washed into for spheroidizing treatment. Products of different types and granularities are selected according to different processes and castings..

### 应用范围及使用方法:

适用于各种球墨铸铁的生产。将稀土镁硅铁合金放置铁水包底部, 覆盖孕育剂和覆盖剂, 冲入铁水进行球化处理。根据不同工艺和铸件, 选择不同类型和粒度的产品。

### Granularity and packaging:

The total color difference is 21, and the medium toner is 42, with different types of granularity and packaging customized according to customers' needs.

### 粒度和包装:

颜色合计色差为21, 中色调剂为42, 根据客户需要定制不同类型的粒度和包装。



## 风电球化剂 Wind power nodulizer

牌号 Brand	化学成分(%) Chemical composition (%)						
	Mg	RE	Ca	Si	Al	Ba	Fe
KF-1	4.5-5.5	0.1-0.4	0.6-1.5	43-47	<1.0	适量 Appropriate amount	余量 Allowance
KF-2	5.5-6.5	0.4-0.6	0.6-1.5	43-47	<1.0	适量 Appropriate amount	余量 Allowance
KF-3	5.5-6.5	0.8-1.2	0.6-1.5	43-47	<1.0	适量 Appropriate amount	余量 Allowance
KF-Z	5.5-6.5	0.5-1.5(Y)	0.6-1.5	43-47	<1.0	适量 Appropriate amount	余量 Allowance

## 重稀土球化剂 Heavy rare earth nodulizer

牌号 Brand	化学成分(%) Chemical composition (%)						
	Mg	RE(Y)	Ca	Si	Al	Ba	Fe
KY-1	5.5-6.5	0-2.5	1.0-3.0	40-44	<1.0	适量 Appropriate amount	余量 Allowance
KY-2	6.5-7.5	2.5-3.5	1.0-3.0	40-44	<1.0	适量 Appropriate amount	余量 Allowance
KY-3	7.5-8.5	2.5-3.5	1.0-3.0	40-44	<1.0	适量 Appropriate amount	余量 Allowance

## 普通球化剂 Common nodulizer

牌号 Brand	化学成分 (质量分数%) Chemical composition (mass fraction %)						
	Mg	RE	Ca	Si	Al	Ti	Fe
CN1-4	3.5<Mg≤4.5	0≤RE≤1.5	1.0<Ca≤3.0	40≤Si≤48	<1.0	<0.5	余量 Allowance
CN1-5	4.5<Mg≤5.5	0≤RE≤1.5	1.0<Ca≤3.0	40≤Si≤48	<1.0	<0.5	余量 Allowance
CN2-5	4.5<Mg≤5.5	1.5<RE≤2.5	1.0<Ca≤3.0	40≤Si≤48	<1.0	<0.5	余量 Allowance
CN1-6	5.5<Mg≤6.5	0≤RE≤1.5	1.0<Ca≤3.0	40≤Si≤48	<1.0	<0.5	余量 Allowance
CN2-6	5.5<Mg≤6.5	1.5<RE≤2.5	1.0<Ca≤3.0	40≤Si≤48	<1.0	<0.5	余量 Allowance
CN1-7	6.5<Mg≤7.5	0≤RE≤1.5	1.0<Ca≤3.0	40≤Si≤48	<1.0	<0.5	余量 Allowance
CN2-7	6.5<Mg≤7.5	1.5<RE≤2.5	1.0<Ca≤3.0	40≤Si≤48	<1.0	<0.5	余量 Allowance
CN3-7	6.5<Mg≤7.5	2.5<RE≤3.5	1.0<Ca≤3.0	40≤Si≤48	<1.0	<0.5	余量 Allowance
CN3-8	7.5<Mg≤8.5	2.5<RE≤3.5	2.0<Ca≤4.0	40≤Si≤48	<1.0	<0.5	余量 Allowance
CN4-8	7.5<Mg≤8.5	3.5<RE≤4.5	2.0<Ca≤4.0	40≤Si≤48	<1.0	<0.5	余量 Allowance
CN5-8	7.5<Mg≤8.5	4.5<RE≤5.5	2.0<Ca≤4.0	40≤Si≤48	<1.0	<0.5	余量 Allowance
CN6-8	7.5<Mg≤8.5	5.5<RE≤6.5	2.0<Ca≤4.0	40≤Si≤48	<1.0	<0.5	余量 Allowance
CN7-8	7.5<Mg≤8.5	6.5<RE≤7.5	2.0<Ca≤4.0	40≤Si≤48	<1.0	<0.5	余量 Allowance
CN7-9	8.5<Mg≤9.5	6.5<RE≤7.5	2.0<Ca≤4.0	40≤Si≤48	<1.0	<0.5	余量 Allowance
CN1-10	9.5<Mg≤10.5	0≤RE≤1.5	2.0<Ca≤4.0	40≤Si≤48	<1.0	<0.5	余量 Allowance

## 蠕化剂 Creeping agent

牌号 Brand	化学成分 (%) Chemical composition (%)					
	RE	Mg	Si	Ca	Al	Fe
CVRE5.0-Mg2.0	4.0-6.0	1.0-3.0	44-46	1.5-3.5	≤1.0	余量 Allowance
CVRE7.0-Mg3.0	>6.0-8.0	2.0-4.0	44-46	1.5-3.5	≤1.0	余量 Allowance
CVRE9.0-Mg4.0	>8.0-10.0	3.0-5.0	44-46	1.5-3.5	≤1.0	余量 Allowance
CVRE11.0-Mg4.5	>10.0-12.0	3.5-5.5	44-46	1.5-3.5	≤1.0	余量 Allowance
CVRE13.0-Mg5.0	>12.0-14.0	4.0-6.0	44-46	1.5-3.5	≤1.0	余量 Allowance
CVRE15.0-Mg5.0	>14.0-16.0	4.0-6.0	44-46	1.5-3.5	≤1.0	余量 Allowance

### 产品说明:

针对蠕墨铸铁铸件研究的铸造材料, 化学成分均匀, 蠕化稳定, 蠕化率高, 蠕化处理时白口倾向小。

### 应用范围及使用方法:

蠕化剂应用于蠕墨铸铁的生产。喂丝法。

### 粒度及包装规格:

5-20mm, 5-25mm, 5-30mm (可根据客户需求定制)。用标准覆膜塑料编织袋包装, 净重25Kg, 或外加吨袋包装。

### Product description:

The casting materials studied for vermicular graphite cast iron castings have the advantages of uniform chemical composition, stable creeping, high creeping rate and low chilling tendency during creeping treatment.

### Application scope and use method:

Creeping agent is used in the production of vermicular graphite cast iron. Cored-wire injection process.

### Granularity and packaging specifications:

5-20mm, 5-25mm, 5-30mm (can be customized as per customer requirements). Packed in standard laminated plastic woven bags, net weight 25Kg, or packed in extra jumbo bags.

## 球化包芯线 Spheroidized cored wire

### 产品说明:

质地致密, 成分均匀, 单位芯料重量稳定, 吸收率稳定, 提高球化级别, 柔韧性好, 不易折断。成分可根据客户要求调整。

### 应用范围及使用方法:

球化线应用于所有的球墨铸铁件的生产。喂丝法。

### 包装规格:

塑料膜、吨袋双重包装。

### Product description:

It has the advantages of dense texture, uniform composition, stable weight per unit core material, stable absorption rate, improved spheroidizing level, good flexibility and not easy to break. Compositions can be adjusted according to customer requirements.

### Application scope and use method:

Spheroidized wire is used in the production of all nodular cast iron pieces. Cored-wire injection process.

### Packaging specifications:

Double packing of plastic film and jumbo bag.

型号 Model	化学成分 (%) Chemical composition (%)						芯粉重量 g Core powder weight g	规格 Specification	
	RE (轻、重稀土) RE (light and heavy rare earth)	Mg	Si	Ca	Ba	Sn/Bi		线径 mm Wire diameter mm	钢带厚度 mm Steel strip thickness mm
Mg15	0-4.0	13-17	42-55	1.0-5.0	适量 Appropriate amount	适量 Appropriate amount	235, 根据客户重量调整 235, adjusted as per client's request	Φ 10、Φ 13	0.32、0.35 、0.40
Mg20	0-4.0	18-22	42-55	1.0-5.0	适量 Appropriate amount	适量 Appropriate amount	235, 根据客户重量调整 235, adjusted as per client's request	Φ 10、Φ 13	0.32、0.35 、0.40
Mg25	0-4.0	23-27	43-48	1.0-5.0	适量 Appropriate amount	适量 Appropriate amount	235±5	Φ 10、Φ 13	0.32、0.35 、0.40
Mg30	0-4.0	28-32	42-46	1.0-5.0	适量 Appropriate amount	适量 Appropriate amount	235±5	Φ 10、Φ 13	0.32、0.35 、0.40

## 孕育包芯线 Inoculation cored wire

型号 Model	化学成分 (%) Chemical composition (%)						芯粉重量 g Core powder weight g	规格 Specification	
	RE (轻、重稀土) RE (light and heavy rare earth)	Mg	Si	Ca	Ba	Sn/Bi		线径 mm Wire diameter mm	钢带厚度 mm Steel strip thickness mm
KYX-1	/	/	68-75	1.0-3.0	2.0-4.0	适量 Appropriate amount	270±5	Φ 10、Φ 13	0.32、0.35 、0.40
KYX-2	适量 Appropriate amount	适量 Appropriate amount	45-65	1.0-3.0	4.0-6.0	适量 Appropriate amount	300±5	Φ 10、Φ 13	0.32、0.35 、0.40
KYX-3	/	/	55-65	5.0-10.0	10.0-20.0	适量 Appropriate amount	270±5	Φ 10、Φ 13	0.32、0.35 、0.40

### 产品说明:

熔炼合金化, 成分均匀, 处理后形成的炉渣少, 延长孕育衰退时间。成分可根据客户要求调整。

### 应用范围及使用方法:

孕育线应用于球墨铸铁和灰铁的铸件生产。喂丝法。

### 包装规格使用方法:

塑料膜、吨袋双重包装。

### Product description:

It has the properties of smelting and alloying, uniform composition, less slag formed after treatment, and extended inoculation and decline time. Compositions can be adjusted according to customer requirements.

### Application scope and use method:

Inoculation wire is used in the production of nodular cast iron and grey iron castings. Cored-wire injection process.

### Packaging specifications:

Double packing of plastic film and jumbo bag.



## 孕育剂 Inoculant

### 产品说明:

针对球墨铸铁和灰铸铁铸件研究的铸造材料。促进石墨化，细化机体组织，显著减少白口倾向，提高铸件切削加工性能。

### 应用范围及使用方法:

孕育剂应用于球墨铸铁及灰铸铁的生产。冲入法。

### 粒度及包装规格:

0.2—0.7mm、1—3mm、3—8mm、8—15mm，（可根据客户需求定制）。用标准覆膜塑料编织袋包装，净重25Kg，或外加吨袋包装。

### Product description:

Casting materials for nodular cast iron and gray iron castings have the characteristics in promoting graphitization, refining the microstructure of the body, significantly reducing chilling tendency, and improving the machinability of castings.

### Application scope and use method:

Inoculation is used in the production of nodular cast iron and grey iron pieces. Pouring process.

### Granularity and packaging specifications:

0.2-0.7 mm, 1-3mm, 3-8mm, 8-15mm (can be customized as per customer requirements). Packed in standard laminated plastic woven bags, net weight 25Kg, or packed in extra jumbo bags.

牌号 Brand	化学成分(%) Chemical composition (%)											
	Si	Ca	Ba	Sr	Zr	RE	Mn	Sb	Bi	Cr	Al	Fe
EeSi75A11.5-A	74-80	≤1.0					≤0.4			≤0.3	≤1.5	余量 Allowance
EeSi75A11.5-B	72-80	≤1.0					≤0.5			≤0.5	≤1.5	余量 Allowance
CISI-Ca1.5Ba3.0	70-74	0.5-2.0	2.0-4.0								≤1.5	余量 Allowance
CISI-Ca1.5Ba5.0	68-74	0.5-2.0	4.0-6.0								≤1.5	余量 Allowance



## 硅钡合金 Silicon-barium alloy

型号 Model	化学成分(%) Chemical composition (%)					
	Ba	Si	Al	P	S	Fe
FeBa30Si35	≥30	≥35	≤3	≤0.04	≤0.04	余量 Allowance
FeBa10Si55	≥10	≥55	≤3	≤0.04	≤0.04	余量 Allowance

## 硅铁 Ferrosilicon

### 产品说明:

成分稳定，洁净无杂质，组织致密。

### 应用范围及使用方法:

硅铁应用于钢工业、铸造工业及其他工业。

### 粒度及包装规格:

吨袋包装。

### Product description:

It has characteristics of stable composition, clean and free of impurities, and dense texture.

### Application scope and use method:

Ferrosilicon is used in steel industry, foundry industry and other industries.

### Granularity and packaging specifications:

Packed in jumbo bags.



产品描述 Product description	成分(%) Composition (%)					
	Si	Al	Ca	P	S	C
		不大于 Less than				
FeSi75Al1.5-A	74.0-80.0	1.5	1.5	0.04	0.02	0.1
FeSi75Al1.5-B	72.0-80.0	1.5	1.5	0.04	0.02	0.2
FeSi75Al2.0-A	74.0-80.0	2.0	1.5	0.04	0.02	0.1
FeSi75Al2.0-B	72.0-80.0	2.0	1.5	0.04	0.02	0.2

## 稀土硅铁合金 Rare earth ferrosilicon alloy

型号 Model	化学成分(%) Chemical composition (%)						
	Re	Si	Al	Ca	Mn	Ti	Fe
ReSiFe-29	≥27	≤52	≤2.0	≤5.0	≤2.5	≤1.5	余量

