

# STARLIGHT

Shenyang Starlight  
advanced ceramics co.,ltd

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沈阳星光技术陶瓷有限公司

STARLIGHT

星光技陶

HIGH PERFORMANCE  
ADVANCED  
CERAMICS

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## ABOUT STARLIGHT 关于星光技陶

沈阳星光技术陶瓷有限公司位于中国重要的工业基地和先进装备制造业基地——辽宁省沈阳市，是一家设计一流、研发创新、质量稳定、产能庞大的世界顶级新型碳化硅原材料及制品的制造企业，产品远销海外二十多个国家和地区。多年来，公司秉承诚信的经营理念，为客户提供最优质的服务。

基于碳化硅材料的优越性，公司经过 20 余年的不断研发与创新，不仅在工业窑炉等领域占据稳定的市场份额，同时开辟多领域新应用，包括环保行业陶瓷膜、电子陶瓷承烧框架、军工领域、光伏领域、碳化硅颗粒捕集器、半导体行业材料新应用等。

公司多年来致力于产品的研发及创新，依托于沈阳星光技术陶瓷有限公司领先的碳化硅制造技术和经验，由知名大学及院所的高端人才带队，同时引进大量优秀高校毕业生组建一流的研发团队，于 2021 年底，成立了新型碳化硅产业技术研究院，潜心致力于研究开发高端的高纯碳化硅原料及高纯碳化硅制品，为公司的长远发展奠定坚实的基础。

Located in China's important industrial and advanced equipment manufacturing base--Shenyang, Liaoning Province, Shenyang Starlight Advanced Ceramics Co., Ltd., is a first-class design, R&D innovation, stable quality, huge capacity of the world's top new SiC raw materials and products manufacturing enterprises, products are exported to more than 20 countries and regions overseas. Over the years, the company adhering to the integrity of the business philosophy, to provide customers with the best quality service.

Based on the superiority of SiC materials, after more than 20 years of continuous research and development and innovation, we get a stable market share not only in the industrial kiln and other traditional fields, but also open up many fields of new applications, including environmental protection industry ceramic filter, electronic ceramic firing frame, military field, photovoltaic field, SiC DPF, semiconductor industry material new applications.

Over the years, we committed to product R&D and innovation. Relying on the leading SiC manufacturing technology and experience of Starlight, being led by top level talents from well-known universities and institutes, added a large number of outstanding college graduates are introduced to form a first-class R&D team, at the end of 2021, the new SiC industry Technology Research Institute was established. Devoted to the research and development of high-end high purity SiC raw materials and high purity SiC products, for the company's long-term development to settle a strong foundation.



## 3大系列碳化硅制品

公司主要为陶瓷及相关行业提供高品质的节能窑具、高温窑炉配件和高附加值的结构部件。主要应用领域：高温氧化铝氧化锆制品、日用陶瓷、卫生洁具、电瓷、电子陶瓷、蜂窝陶瓷、锂电池、冶金化工等。

公司长期本着发展依存于客户的支持与信赖的理念，致力于为客户解决问题和创造价值，力争成为客户的战略合作伙伴。

The products of Starlight are mainly supplied for the ceramics and related industry as the saving energy kiln furniture, high temperature furnace fittings and high value added structure parts. Main application industry of our product: Al<sub>2</sub>O<sub>3</sub>, ZrO<sub>2</sub>, tableware, sanitary ware, insulator, electron ceramics, honey-comb ceramics, Lithium battery, metallurgy and chemical industry.

Starlight believes that the long-term development depends on the customers' support and reliance. We will do our best to solve the customers' problems and create value, devote to be a strategic partner of our customers.



# HIGH TEMPERATURE APPLICATION

高温应用领域

高性能碳化硅在氧化铝、氧化锆、莫来石等高温行业具有很大的优势。  
For the production of Alumina, Zirconia, Mullite, the use of high performance SiC offer the following advantage.

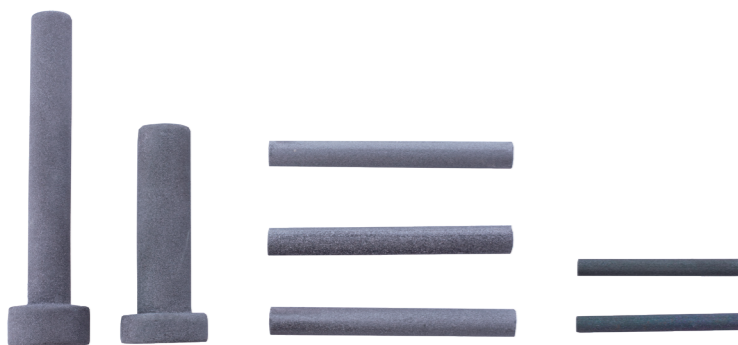
## ADVANTAGE OF STARLIGHT SiC PRODUCT STARLIGHT 碳化硅制品的优势

-  节能降耗  
Reduced energy consumption
-  高温强度大  
High strength under high temperature
-  装卸灵活  
High flexibility
-  高温稳定性好  
Outstanding shape stability

### STARRY BEAM STARRY 横梁



### STARRY PIN STARRY 销钉



STARRY 辊棒在高温辊道窑上的应用  
STARRY ROLLER SERVES FOR ROLLER KILN



STARRY 板柱结构在制作氧化铝、氧化锆时的应用  
STARRY PLATE & SUPPORT FOR FIRING ALUMINA, ZIRCONIA PRODUCT



STARRY 辊棒  
STARRY ROLLER



STARRY 棚板 + 立柱  
STARRY PLATE & SUPPORT



STARRY 横梁 / 销钉在重承载、吊烧氧化铝辊棒时的应用  
STARRY BEAM & PIN FOR HEAVY-LOAD CONSTRUCTION HANG FIRING OF ROLLERS



STARRY 烧嘴  
STARRY BURNER NOZZLE

# SANITARYWARE

卫浴洁具行业

性能稳定的横梁、立柱，搭配轻薄的平板或台盆垫，适用于各种各样卫浴洁具的承烧系统，包括单层烧制，多层烧制。量体裁衣的设计更能满足客户特殊要求的搭接方式。高性能碳化硅制品有利于窑炉内热量分布均匀，提高烧成合格率同时也有效降低能源的消耗。

Stable beams and supports added thin plate or basin setters, are suitable for all kinds of sanitaryware firing systems, including single and multi-deck. Tailored design allows for custom constructions adapted to particular requirement. High performance SiC improves temperature distribution, guarantee higher productivity and yields as well as reduced energy consumption.

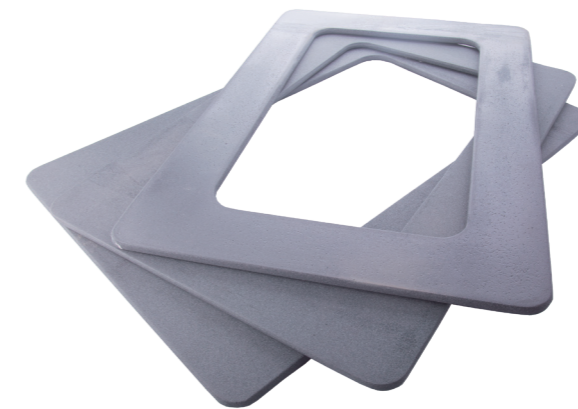
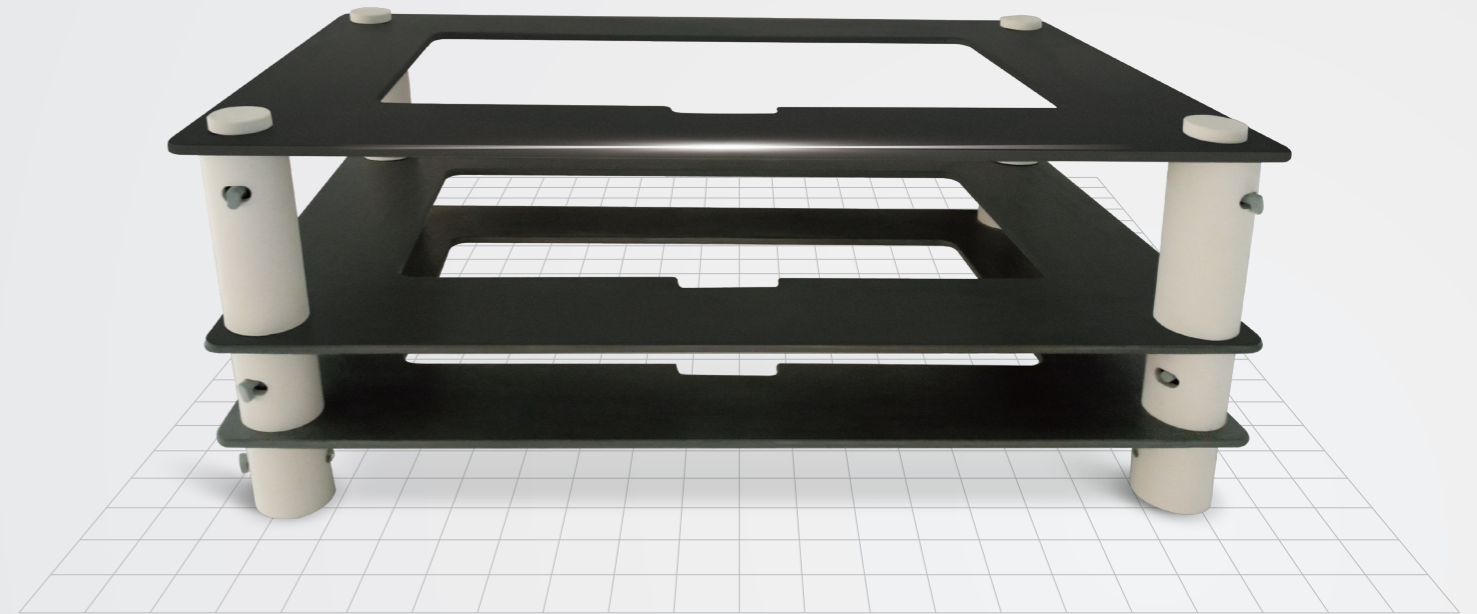
## ADVANTAGE OF STARLIGHT SiC PRODUCT IN SANITARYWARE INDUSTRY

STARLIGHT 碳化硅制品在卫浴洁具行业的优势



# STARNY BASIN SETTER

STARNY 台盆垫



# STARRY BASIN SETTER

STARRY 台盆垫

# STARSY BEAM

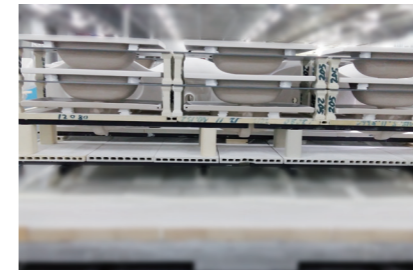


S

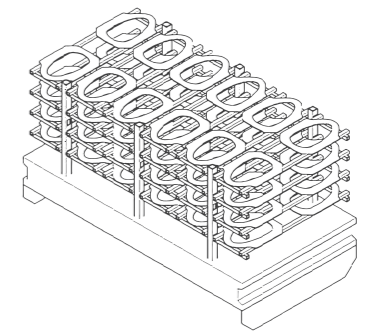
**STARNY BEAM**  
STARNY 横梁



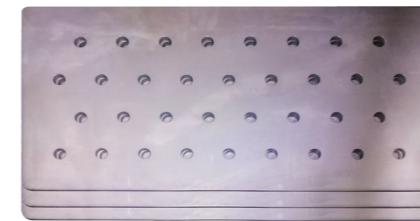
# SANITARYWARE



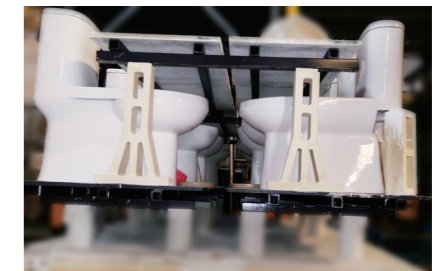
多层洗手盆烧结系统  
MULTILUG SYSTEM FOR FIRING LAVATORIES



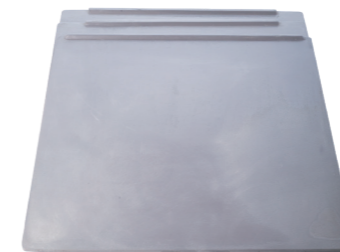
多层洗手盆烧结系统  
MULTILUG SYSTEM FOR FIRING LAVATORIES



STARNY 多孔板  
STARNY MULTI-HOLES PLATES



单层结构  
SINGLE LEVEL STRUCTURE



STARNY 棚板  
STARNY PLATE



STARNY 辊棒  
STARNY ROLLER

# TABLEWARE

日用瓷



## ADVANTAGE OF STARLIGHT SiC PRODUCT IN TABLEWARE INDUSTRY

STARLIGHT 碳化硅制品在日用瓷行业的优势

-  轻质节能  
Reduce weight and energy saving
-  利于自动化装卸  
Increased automation compatibility
-  装载率及合格率更高  
Increased capacity and quality
-  使用寿命更长  
longer service life
-  提高工作效率  
Increased efficiency
-  性能稳定  
Dimensional stability



**STARNY PLATE SETTERS**  
STARNY 鱼形板

近年来，日用瓷行业所面临的挑战就是客户对于轻质、节能窑具的需求越来越大。这也正是我们所关注的重点。我们的设计方案与速烧窑完美配合，将给客户带来更多收益。而我们在这一应用领域的不断发展，旨在使产品和窑具可以实现自动化的装卸，这也意味着薄、轻并且强度更高的窑具系统必将取代传统窑具。

One of the challenges in the tableware industry is the demand for lighter and economically better construction. Our designs combined with your fast-fire kiln car help your company reduce costs. New developments in this application field

aim towards automatic loading and unloading of fired products and kiln furniture. It means thinner, lighter and significantly stronger system components than traditional kiln furniture.



更薄  
thinner



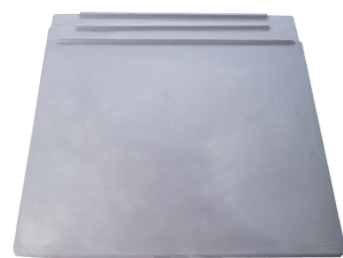
更轻  
lighter



更强  
stronger



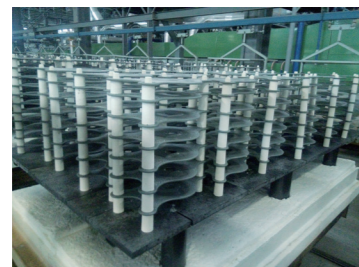
# TABLEWARE



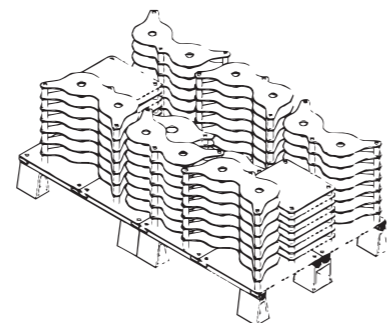
STARNY 棚板  
STARNY PLATE



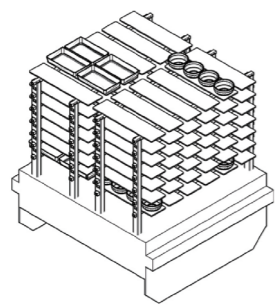
STARNY 横梁  
STARNY BEAM



鱼形板速烧系统  
FAST FIRING SYSTEMS WITH PLATE SETTERS



鱼形板速烧系统  
FAST FIRING SYSTEMS WITH PLATE SETTERS



棚板 + 横梁的速烧系统  
FAST FIRING SYSTEMS WITH BEAMS AND PLATES



日用瓷辊道窑  
ROLLER KILN FOR TABLEWARE

S

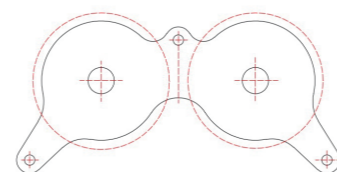
## STARSY ROLLER STARSY 辊棒



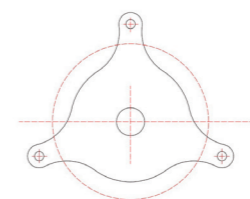
STARNY 立柱  
STARNY SUPPORT

## FISH PLATE SPECIES

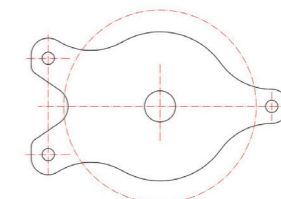
鱼形板种类



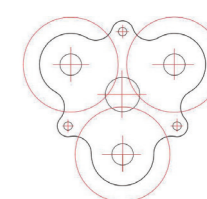
DTS



TS



TSY

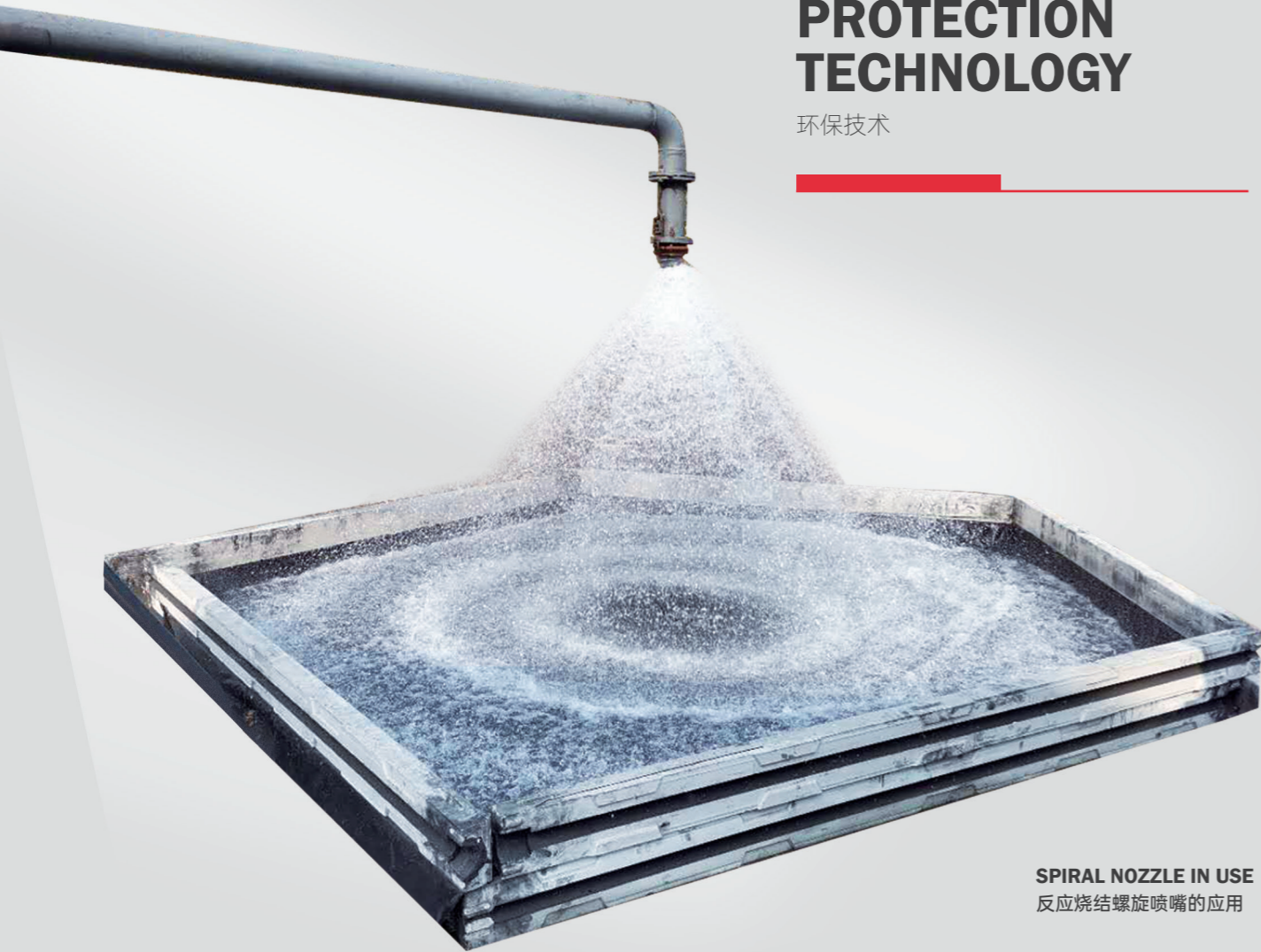


TTS



# ENVIRONMENTAL PROTECTION TECHNOLOGY

环保技术



**SPIRAL NOZZLE IN USE**  
反应烧结螺旋喷嘴的应用

在环保领域的应用，往往要求材料具有极高的性能和技术水平。由于具备非常好的耐酸性，反应烧结碳化硅喷嘴在整个环保系统中起到重要的作用，其中最具有代表性的是用于电厂废气脱硫的螺旋喷嘴。

The protection of our environment requires precise product performance and high-level technologies. Due to the excellent resistance to acids, STARSY spray nozzles are used in current environment protection systems, especially STARSY spiral nozzle used for glue gas desulphurization in power station.



## ADVANTAGE OF STARLIGHT SPRAY NOZZLE STARLIGHT 喷嘴的优势

- 极其坚硬  
Hardness similar to diamond
- 抗化学性能好  
Outstanding chemical resistance
- 耐磨性好  
Excellent wear resistance

以氧化铝、氧化锆等材料为主制作而成的片式膜、管式膜、DPF等产品，在工业废气处理、污水处理、柴油车尾气净化等领域起到重要的作用。出于对高品质产品的需求，生产企业往往对窑具的要求也非常高，Starlight 所提供的整体烧结方案可以满足不同客户的需求。

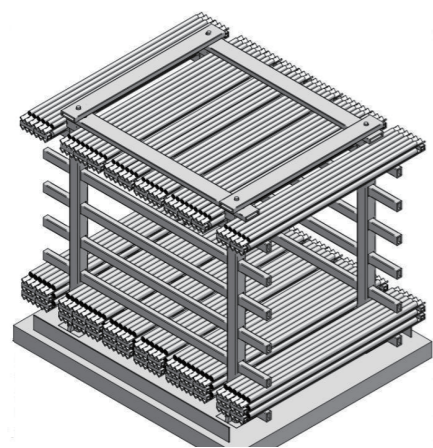


**STARSY SPRAY NOZZLE**  
反应烧结碳化硅喷嘴

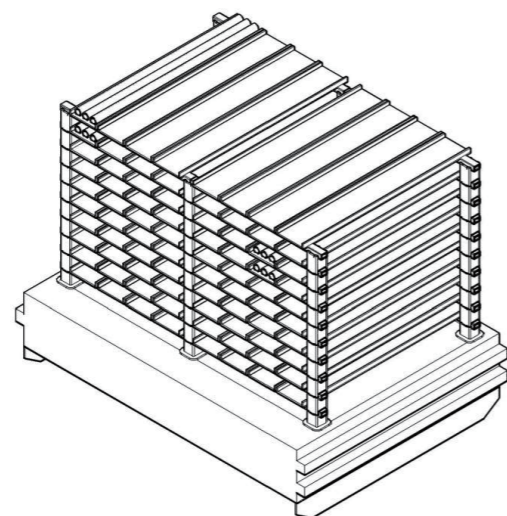
Plate ceramic filter, tube ceramic filter, and DPF which made of Alumina, zirconia or other materials, play important role in industrial waste gas treatment, sewage treatment, and diesel vehicle exhaust purification field. Due to the demand for high-quality products, customers have very high requirements for kiln furniture. The overall firing system solution provided by Starlight can meet the needs of different customers.

## ADVANTAGE OF STARLIGHT SIC PRODUCT IN CERAMIC FILTER STARLIGHT 碳化硅制品在膜材料行业的优势

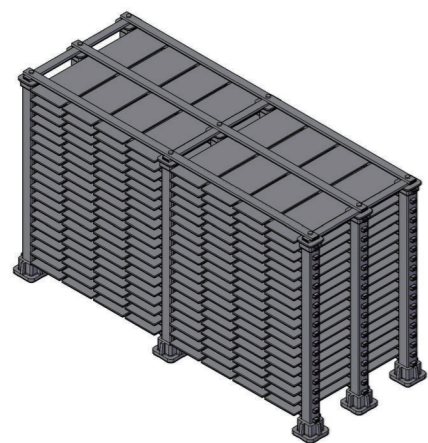
- 轻质节能  
Reduce weight and energy saving
- 高温稳定性好，使用寿命长  
Outstanding shape stability, longer service life
- 提升装载率  
Increased capacity
- 提高产品质量  
Increased quality
- 利于自动化装卸  
Increased automation compatibility



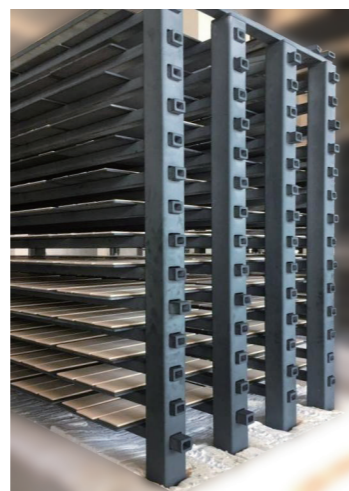
WAVE PLATE FOR TUBE  
CERAMIC FILTER IN SHUTTLE KILN  
梭式窑瓦楞板烧结管式膜



U-BEAM FOR TUBE  
CERAMIC FILTER IN SHUTTLE KILN  
梭式窑 U 型梁烧结管式膜



片式膜梭式窑整体方案  
DESIGN OF SHUTTLE KILN FOR PLATE  
CERAMIC FILTER

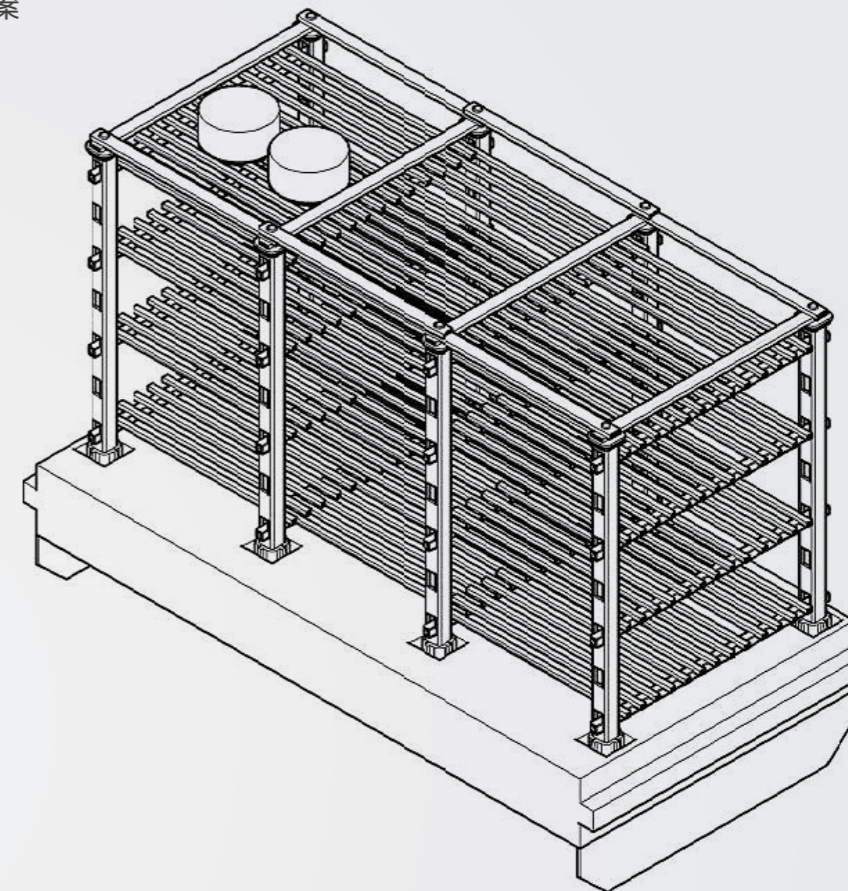


重结晶碳化硅在梭式窑烧制片式膜的应用  
STARRY IN PRODUCTION OF PLATE CERAMIC  
FILTER IN SHUTTLE KILN

D

DESIGN OF SHUTTLE KILN FOR DPF

DPF 梭式窑整体方案



氮化硅结合碳化硅在梭式窑烧制 DPF 的应用  
STARNY IN PRODUCTION OF DPF IN SHUTTLE KILN

# FOR WATER TREATMENT INDUSTRY

水处理行业用重结晶碳化硅陶瓷管式膜

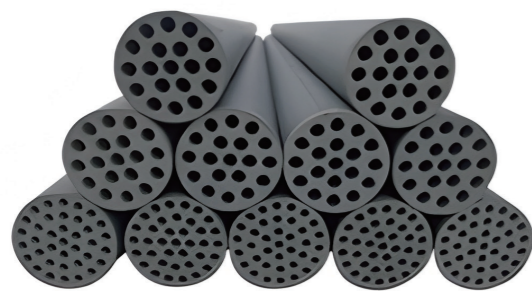
## WATER TREATMENT INDUSTRY

STARLIGHT 重结晶碳化硅膜具有以下特点

- 低曲折孔结构：完全由接近的碳化硅颗粒构造出通畅的孔结构，物质透过膜到另一侧的路径是常规膜的二分之一左右，同等条件下，其受到的摩擦阻力也为二分之一。
- 45% 高孔隙率：重结晶的过程去除了细粉体，使得重结晶膜的孔隙没有任何堵塞，孔隙率可达 45%，比常规陶瓷膜高 50%。
- 抗热震性强：重结晶碳化硅膜可在室温 -800 摄氏度之间直接切换一万次而不开裂。特别适合高温过滤过程。
- 耐受性强：重结晶碳化硅膜可耐受强酸碱的环境，且高温下强度不变，正常使用不会有断裂的情况。
- 低能耗：无堵塞的孔结构和更高的孔隙率。重结晶碳化硅膜的过滤阻力是常规膜的 1/3-1/4，是企业节能减排，降低碳排放的优选产品。

### RSIC CERAMIC MEMBRANE HAS THE FOLLOWING CHARACTERISTICS:

- 1.Low complicated pore structure: Constructed open pore structure completely by similar SiC particles,distance of impurity through the membrane to the other side is nearly half of the inorganic membrane,under the same condition, the friction resistance is only half.
- 2.High porosity: Porosity is 45%, 50% higher than other membrane.
- 3.Good thermal shock resistance: RSIC ceramic membrane can stand direct switch ten thousand times without cracking between room temperature to 800 degrees Celsius.Especially suitable for high temperature filtration process.
- 4.Good survivability: RSIC ceramic membrane can be resistant to strong acid and alkali environment, constant high temperature strength, no crack under common application condition.
- 5.Energy saving: The filtration resistance of RSIC ceramic membrane is 1/3-1/4 of that the other membrane,which is the preferred product for enterprises to save energy and reduce carbon emissions.



## ADVANTAGE PERFORMANCE COMPARISON

STARLIGHT膜与其它膜优势性能对照

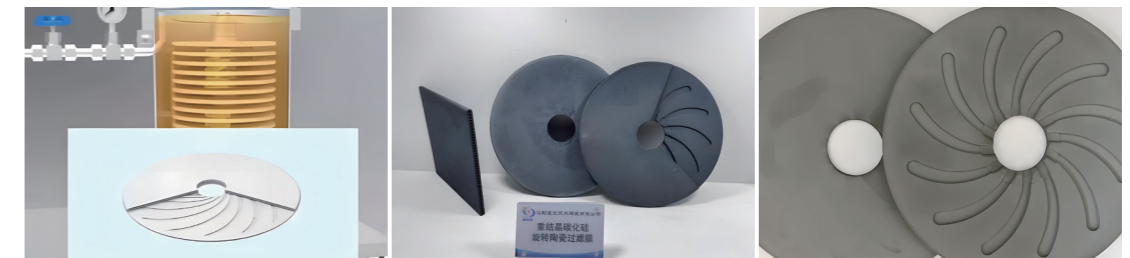
名称	SIC 膜	高分子材料膜	Al <sub>2</sub> O <sub>3</sub> 陶瓷膜	金属膜
载体材料	100%SiC	高分子材料	氧化物	金属支撑
膜过滤层材料	100%SiC	PS\PVC\PAN\PVDF\PES	氧化物	氧化物负载
硬度	高	低	高	高
运行压力	1-2bar	1-2bar	3-4bar	4-6bar
纯水通量	3~4m <sup>3</sup> /m <sup>2</sup> .h	0.08~0.12m <sup>3</sup> /m <sup>2</sup> .h	0.25~3m <sup>3</sup> /m <sup>2</sup> .h	0.25~0.5m <sup>3</sup> /m <sup>2</sup> .h
耐受温度	800 度 (空气)	<40 度	<300 度	<300 度

# SILICON CARBIDE POROUS CERAMIC SPIN FILTER MEMBRANE

环保行业用碳化硅多孔陶瓷旋转过滤膜

## FEATURES 产品特点

- 亲水性极高，与水的接触角接近 0°，极低的过滤压损；
- 极致的抗氧化能力、耐氟离子、耐氯性 — 不限浓度；
- 极强的油污耐受能力 — 不限浓度；
- 超强的化学清洗恢复能力 — 极端污染条件下，可采用高浓度化学药剂连续清洗，渗透性仍能恢复如初；
- 极快的错流速度（高效清洁膜面）  
交叉流动效果（切向流动清洗过滤器表面）是由过滤盘的旋转而不是通过泵输送大流量产生的。



## POROUS SIC CERAMIC ROTARY FILTER MEMBRANE FOR ENVIRONMENTAL PROTECTION INDUSTRY

Characteristics:

High hydrophilicity, contact Angle with water close to 0°, low filtration pressure loss;

Excellent oxidation resistance, fluorine ion resistance, chlorine resistance -- unlimited concentration;

Excellent oil resistance - unlimited concentration;

Super chemical cleaning recovery ability - under extreme pollution conditions,continuous cleaned by high concentration of chemical agents,permeability can still be restored as before;

Extremely fast cross-flow speed (efficient cleaning of membrane surface)

The cross-flow effect (tangential flow cleaning of the filter surface) is produced by the rotation of the filter disc rather than the high flow through the pump.

# INSULATORS & ELECTROPORCELAIN

电瓷及电子陶瓷

星光技陶可以提供应用于铁氧体、电容器、基材、绝缘子、压敏电阻器,以及其他电子元件的窑具。

Starlight provides kiln furniture for the firing of ferrites, capacitors, substrates, insulators, varistors and several other electronic components.

## ADVANTAGE OF STARLIGHT SiC PRODUCT

STARLIGHT 陶瓷制品的优势

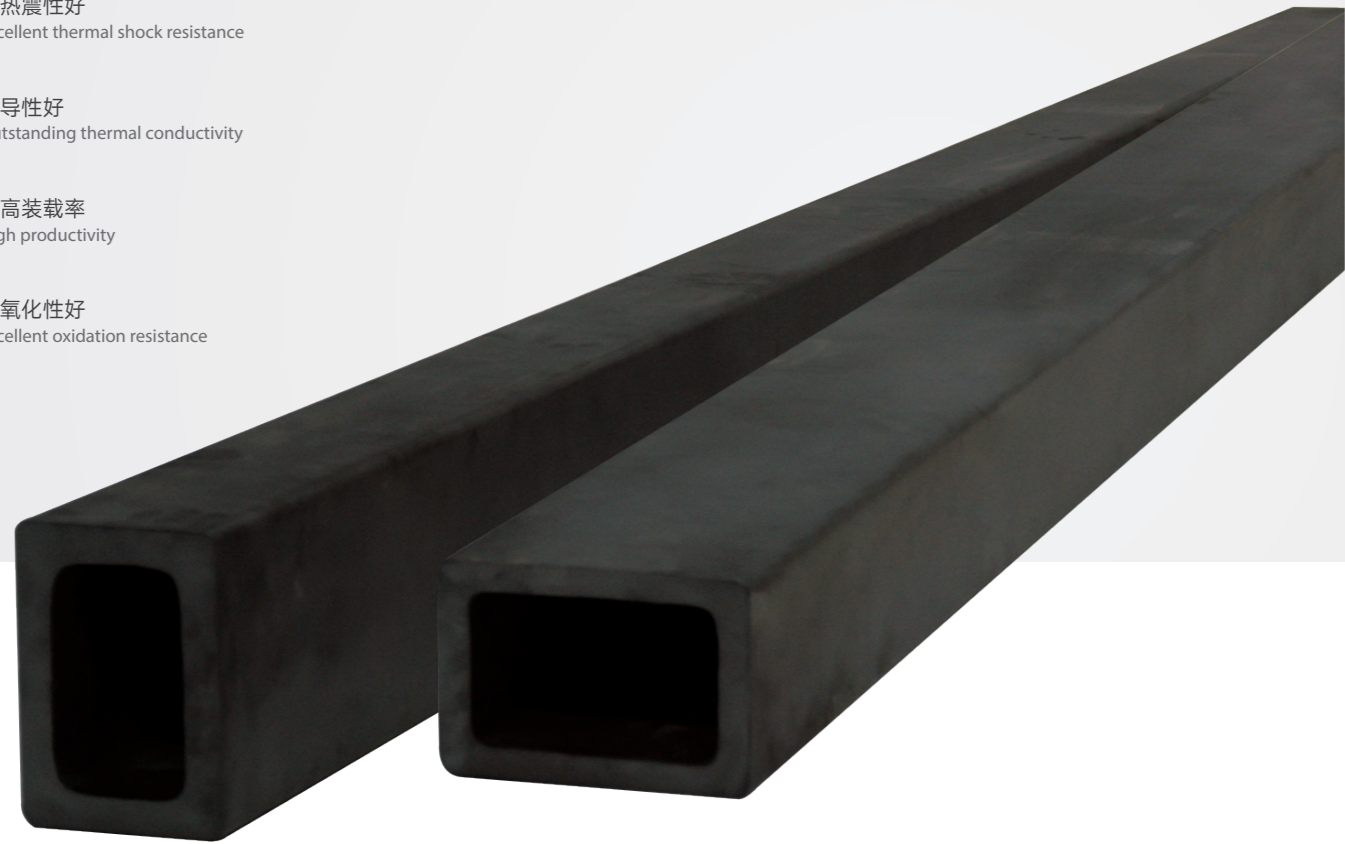
🔥 高温稳定性好、强度大  
High stability and strength

🛡️ 抗热震性好  
Excellent thermal shock resistance

📏 热导性好  
Outstanding thermal conductivity

🚀 提高装载率  
High productivity

🛡️ 抗氧化性好  
Excellent oxidation resistance



**HEAVY-LOAD SiSiC BEAM**  
重承载反应烧结横梁

# INSULATORS & ELECTROPORCELAIN



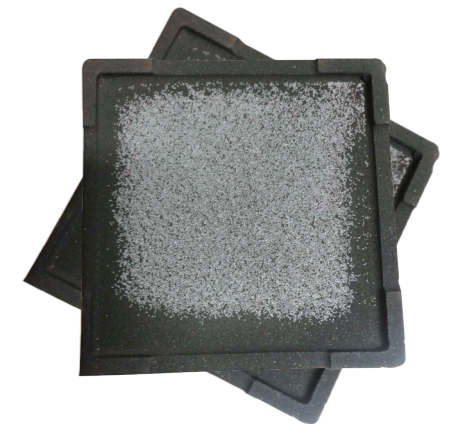
立柱 - 用于烧制绝缘子  
SUPPORT FOR FIRING INSULATORS



烧制电瓷产品的重承载结构  
HEAVY-LOAD CONSTRUCTION FOR INSULATORS



重结晶碳化硅匣钵在烧制电子元件时的应用  
RSiC SAGGER FOR SINTERING ELECTRICAL COMPONENTS



重结晶碳化硅匣钵在烧制电子元件时的应用  
RSiC SAGGER FOR SINTERING ELECTRICAL COMPONENTS

# SEMICONDUCTOR AND PHOTOVOLTAIC APPLICATIONS

半导体及光伏应用领域

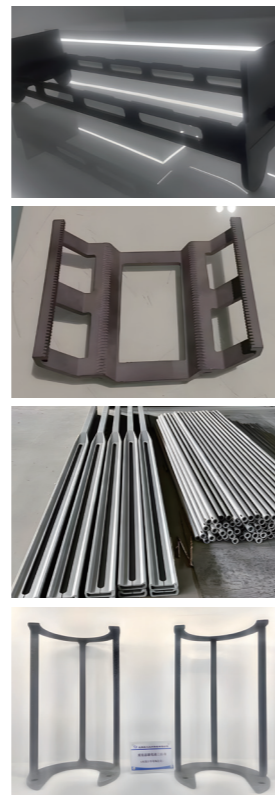
近年来，半导体及光伏行业迅速发展，产业规模急速增大，制造设备持续向精密化和复杂化演变，对高精度陶瓷关键部件的技术要求和国产化需求也越来越多，这对于多年从事碳化硅制造企业来说是一个新的发展契机和转折点。

我公司目前可生产大管径薄壁管，悬臂桨，及碳化硅晶舟等，其主要具备如下特征：

## ADVANTAGES OF STARLIGHT SiC PRODUCT

STARLIGHT 陶瓷制品的优势

- 🔥 高热导性——和石墨材料的导热性相当；
- 💎 硬度高——硬度仅次于金刚石、立方氮化硼；
- 🧪 耐腐蚀——强酸、强碱对其无任何腐蚀，抗腐蚀性优于碳化钨和氧化铝；
- 🌀 密度高——碳化硅 2.7-3.0g/cm<sup>3</sup>，可根据客户要求订制；
- ⚖️ 不变形——极小的热膨胀系数；
- 🔥🔥 抗热震——材料可承受急剧的温度变化，抗热冲击，耐急冷急热，性能稳定。



## SEMICONDUCTOR AND PHOTOVOLTAIC APPLICATIONS

In recent years, the scale of semiconductor and photovoltaic industry developed rapidly. Manufacturing equipment continues to evolve to precision and complex, more and more international demand for high precision ceramic key components technology, which is a new development opportunity for SiC manufacturing enterprises.

Starlight can provide large diameter and thin thickness tube, cantilever paddle, and SiC crystal boat, which mainly has the following characteristics:

- Thermal conductivity ---- is comparable to that of graphite materials;
- High hardness ----- hardness rank second only to diamond, cubic boron nitride;
- Corrosion resistance ----- no corrosion in strong acid, strong alkali condition, corrosion resistance is better than tungsten carbide and alumina;
- High density ----- 2.7-3.0g/cm<sup>3</sup>, can be customized according to customer requirements;
- No deformation ----- minimal coefficient of thermal expansion;
- Thermal shock resistance ----- material can withstand rapid temperature changes, thermal shock resistance, rapid cold and heat resistance, stable performance.

# POWDER

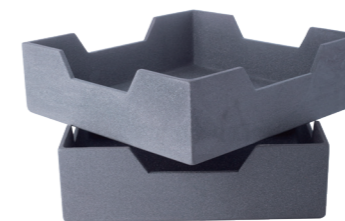
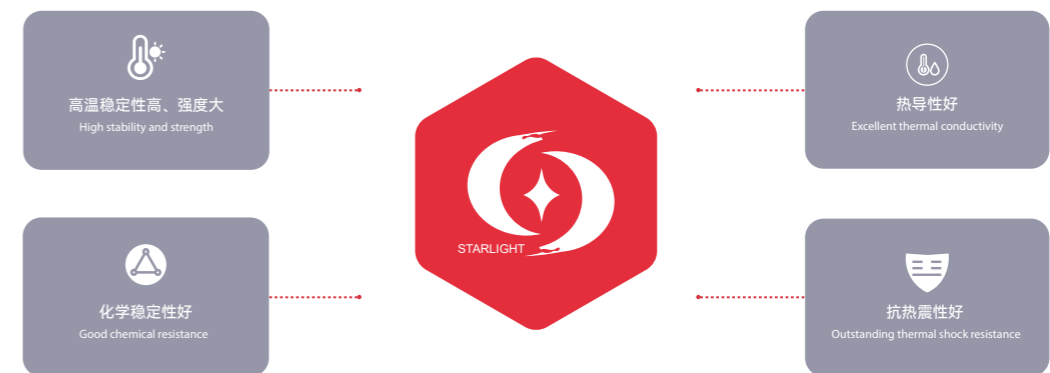
粉末

碳化硅匣钵及坩埚可以用于烧结、热处理以及材料的破坏分析，例如：磷粉和荧光粉。碳化硅所具有的中性化学反应性能以及抗热震性，使得高温下与其他材质接触时，使用寿命得到保证。

SiC sagger and crucible for firing, heat treating and analysis of pulverized materials, e.g. phosphorous and fluorescent powders. The often neutral chemical reaction and the thermal shock resistance of SiC allow extremely high temperature profiles, which will be fulfilled by another material in addition with a long service life.

## ADVANTAGES OF STARLIGHT SiC PRODUCT

STARLIGHT 陶瓷制品的优势



重结晶碳化硅匣钵  
STARRY SAGGER



反应烧结碳化硅坩埚  
STARSY CRUCIBLE

SiSiC 辊棒可应用于烧制锂电池粉末的辊道窑  
SiSiC ROLLER FOR LITHIUM BATTERY POWDER  
IN ROLLER KILN



S

STARLIGHT

SiSiC 匣钵可应用于烧制锂电池粉末  
SiSiC SAGGER FOR LITHIUM BATTERY

## HEAT TREATMENT

热处理

### ADVANTAGES OF STARLIGHT SiC PRODUCT

STARLIGHT 陶瓷制品的优势



化学性能稳定  
Excellent chemical resistance



高温稳定性好  
Very good temperature stability



强度高  
Outstanding strength



SiSiC 热辐射管  
SiSiC RADIANT TUBE



SiSiC 热辐射管  
SiSiC RADIANT TUBE



SiSiC 烧嘴  
SiSiC BURNER NOZZLE



SiSiC 热辐射管  
SiSiC RADIANT TUBE

# WEAR RESISTANT TECHNOLOGY

耐磨技术

磨损产生的原因除了由于划痕和侵蚀的以外，更多情况下是由于化学腐蚀。在工业领域，每年都会产生很大部分由于磨损而产生的设备维护费和生产损失。

In addition to wear effects caused by abrasion and erosion, further losses can be attributed to chemical corrosion. Every year, industry suffers high costs due to wear, maintenance operations and production losses.

## ADVANTAGE OF STARLIGHT SiC PRODUCT

STARLIGHT 陶瓷制品的优势

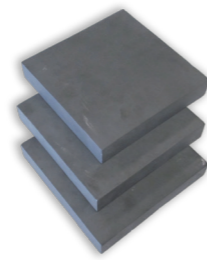
-  使用寿命更长  
Longer service life
-  提高生产率  
Increased productivity
-  提高安全性  
Improved production safety
-  提高产品品质  
Improved quality
-  化学性能稳定  
Excellent chemical resistance
-  极好的耐磨性  
Excellent wear resistance



SiSiC 耐磨件  
DIFFERENT KINDS OF  
SiSiC PRODUCT FOR WEAR RESISTANCE



SiSiC 管 SiSiC TUBE



SiSiC 板 SiSiC PLATE

# OTHER APPLICATION

其他领域



RSiC 标砖  
RSiC BRICKS



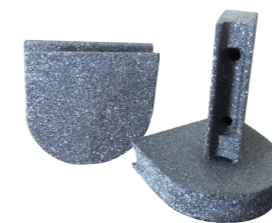
NSiC 热电偶保护管  
NSiC THERMOCOUPLE TUBES



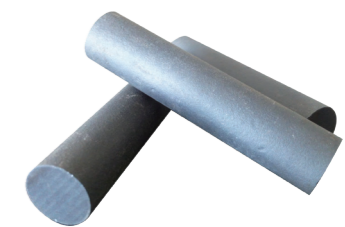
NSiC 升液管  
NSiC RISING TUBE



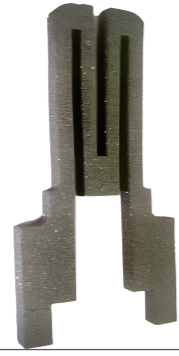
NSiC 辐射管  
NSiC RADIANT TUBE



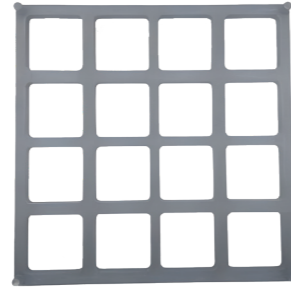
热压铸 RSiC 探头  
HOT PRESS RSiC PROBE



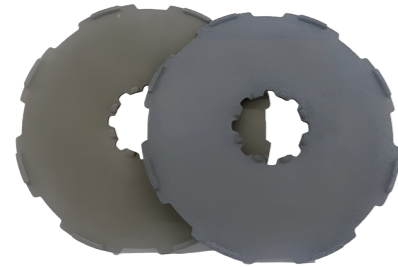
挤出成型 SiSiC 实心棒  
EXTRUSION SiSiC SOLID ROD



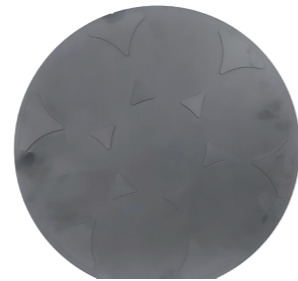
RSIC 点火针  
RSIC IGNITION PIN



RSIC 承烧架  
RSIC SETTER



RSIC 隔热板  
RSIC HEAT SHIELD



RSIC 研磨板  
RSIC GRINDING PLATE



RSIC 承烧块  
RSIC SETTER BLOCK

## QUALITY ASSURANCE AND QUALITY CONTROL

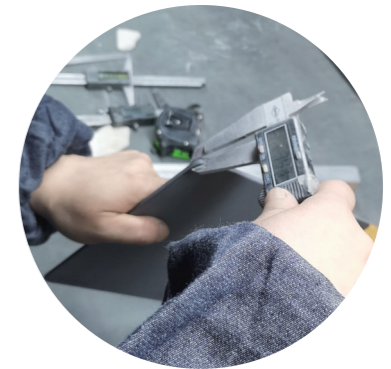
质量保证与品控

为了满足客户对星光技陶产品的需求，从原料进厂开始，我们每一道生产工序都经过严格的把关。出厂之前，所有产品都经过严格检查，基于我们的管理体系，我们对产品质量的检查控制都符合行业及企业标准的要求。

In order to meet customer requirements at Starlight products, from purchase of raw material, all of the single production steps are supervised and continuously improved. All products are checked carefully before shipment. Based on our management system, the control of our product quality and inspection are all meet the requirements of industry and company standards.

### QUALITY CONTROL 质量控制

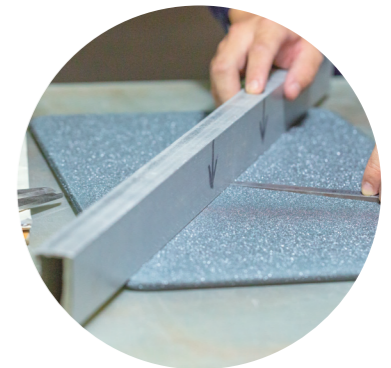
-  尺寸公差测量  
Measurement of dimension tolerance
-  最大弯曲度的测量  
Measurement of maximum bending
-  强度以及承载能力的测量与控制  
Strength and load capacity testing and control
-  垂直度和平行度的检测  
Checking of Verticality and Parallelism
-  可追溯唯一标识  
Trackable unique mark



**DIMENSION INSPECTION**  
尺寸检测

与客户订单相关的证明和质检报告会与产品一同发出。

In coordination with our customer corresponding certificates and inspection sheets will be drawn up and shipped with goods.



**FLATNESS INSPECTION**  
平面度检测



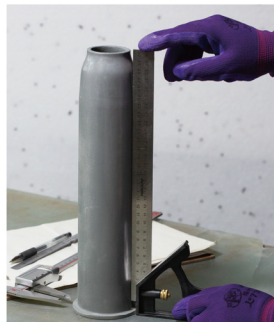
# QUALITY CONTROL



横梁强度检测  
INSPECTION OF BEAM STRENGTH



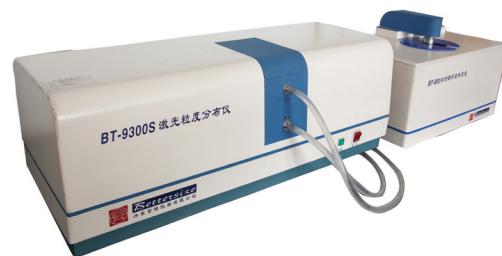
辊棒直线度跳动值检测  
INSPECTION OF ROLLER T.I.R.



垂直度检测  
INSPECTION OF VERTICALITY



实验室泥浆搅拌  
SLURRY STIRRING IN LAB



激光粒度分布仪  
LASER PARTICLE SIZE DISTRIBUTION ANALYZER

## MATERIAL PROPERTIES

性能指标

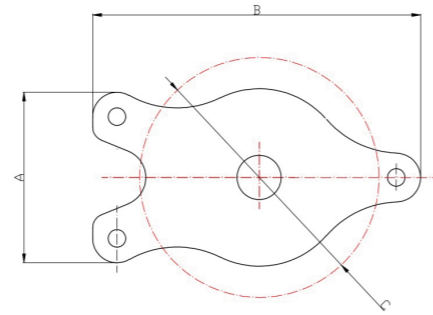
星光技陶的产品是由高纯碳化硅原料，经过成型后，在真空感应烧结炉中高温烧结而成，产品的化学成分、纯度、微观组织结构完全能够满足各种条件的应用。

Products from Starlight are made of high purity SiC raw material, after molding, sintered in vacuum induction furnace. The specific chemical composition, purity and ceramic structure fulfill all the condition for different application.

材料性能 Materials Properties	单位 Units	STARRY	STARNY	STARSY
化学成分（相组成） Contents		SiC ≥ 99%	SiC ≤ 75% Si <sub>3</sub> N <sub>4</sub> ≥ 25%	SiC ≥ 95% Si ≤ 5%
体积密度 Bulk density	g. cm <sup>-3</sup>	2.65 ~ 2.75	2.73 ~ 2.83	3.02 ~ 3.07
显气孔率 Apparent porosity	%	<17	<1	<0.1
常温抗弯强度 Modulus of rupture at 20°C	MPa	90 ~ 100	160 ~ 170	260 ~ 270
高温抗弯强度 Modulus of rupture at 1200°C	MPa	100 ~ 110	170 ~ 180	280 ~ 290
硬度 Hardness at 20°C	Kg/mm <sup>2</sup>	1800 ~ 2000	2500	2400
断裂韧性 Fracture toughness at 20°C	Mpa×M <sup>1/2</sup>	1.8 ~ 2.0	4.0	3.3
导热系数 Thermal Conductivity at 1200°C	w/m .K	35 ~ 36	20	45
热膨胀系数 Thermal expansion at 20 ~ 1200°C	1×10 <sup>-6</sup> /°C	4.6	4.7	4.5
热震稳定性 Thermal shock resistance at 1200°C		Very good	Excellent	Good
最高工作温度 Max. working temperature		1650°C	1420°C	1350°C

# STANDARD DIMENSION

标准尺寸



## STARNY PY SETTER SIZE

STARNY PY 系列棚板规格型号

规格型号 DRAWING NO.	主要尺寸 SIZE			厚度 THICKNESS (mm)	体积 BULK (g/cm <sup>3</sup> )
	A	B	C		
PY150	140	245	150	5	112.36
PY175	160	270	175	5	142.32
PY215	180	315	215	5	187.27
PY250	192	350	250	6	194.76
PY270	200	370	270	6	284.64
PY290	215	395	290	6	340.82
PY310	220	415	310	7	411.99
PY340	260	445	340	7	516.85
PY360	280	465	360	7	681.65

## STANDARD DIMENSION OF BEAM FOR REFERENCE

横梁标准尺寸参考

高 H	宽 W	壁厚 T	最大长度 MAX L
20	20	5	1500
25	25	5-6	2000
30	20	5-6	2000
30	30	5-6	2000
40	20	5-6	2000
40	30	5-6	3000
40	40	6-7	3500
50	30	6-7	3500
50	40	6-7	3800
50	50	6-7	3800
60	40	6-7	3800
60	50	7-8	3800
60	60	7-8	3800
70	50	7-8	3800
80	60	7-8	3500

## COMMON DIMENSION OF ROLLER FOR REFERENCE

辊棒常用尺寸参考

外径 OD	壁厚 T	最大长度 MAX L
25	5	1500
30	5-6	2000
35	5-6	2000
38	5-6	2500
40	6-7	3000
42	6-7	3000
45	6-7	3500
50	6-7	3800
54	6-7	3800
55	6-7	3800
60	7-8	3800
65	7-8	3500
70	7-8	3500

## TOLERANCE OF ROLLER

辊棒公差标准

检测项目 INSPECTION ITEM	单位 UNIT	公差标准 TOLERANCE
外径 OD	MM	±1
壁厚 THICKNESS	MM	+2/-0.5
长度 LENGTH	MM	±3
直线度 STRAIGHTNESS	‰	≤1
圆度 ROUNDNESS	MM	0.5

# STANDARD DIMENSION