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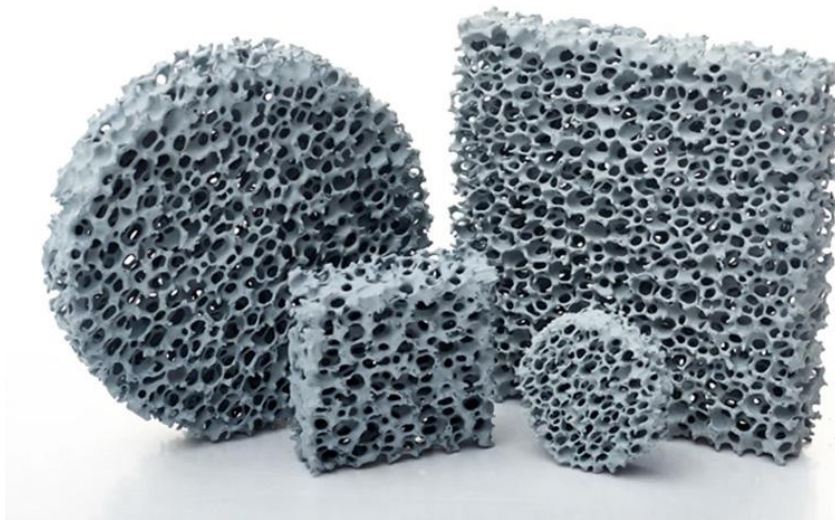
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Silicon carbide foam ceramics, its development began in the 1970s. As a new type of inorganic non-metallic filter material with a lot of pores in its internal structure, silicon carbide foam ceramics have the advantages of light weight, high strength, high temperature resistance, corrosion resistance, simple regeneration, long service life, and good filtration and adsorption. It has a wide range of application prospects in metallurgy, chemical industry, environmental protection, energy, biology and other fields.

Product Description:

Silicon carbide foam ceramics are usually made from a mixture of silicon carbide powder, clay, silica and alumina, in the air firing temperature range of 1200 ~ 1400 °C, the sintering process of silicon carbide particles and vitreous or semi-crystalline alumino-silicate compounds, the formation of ceramic body with a certain degree of strength and densities, a feature of this preparation process is that in the sintering process, no shrinkage or only slight shrinkage. Silicon carbide content generally does not exceed 75% wt, which is sufficient for the normal use of such products, because the vast majority of silicon carbide foam ceramics used as filters in the foundry field is disposable, low content of silicon carbide can effectively reduce the cost and increase the flexibility of the process, and thus improve the production efficiency. In some areas, such as burners, diesel exhaust filters, heating elements, solar receivers, etc., need to be more resistant to high temperatures and thermal shock resistance and even conductive silicon carbide foam ceramics, existing products in the lower silicon carbide content can not meet the requirements, and often need to be reused for a long period of time, therefore, it is necessary to significantly increase the existing silicon carbide foam ceramics in the content of silicon carbide, in order to improve the thermal shock resistance and long-term reuse performance. and long-term reuse performance.



Product Performance:


(1) The sintering of silicon carbide foam ceramics can be sintered densely under atmospheric air, which does not require high pressure and inert atmosphere to achieve densification, so that the enterprise production costs are reduced.

(2) Usually add the appropriate sintering additives to reduce the sintering temperature of silicon carbide foam ceramics, sintering at atmospheric pressure can reduce the oxidation of SiC on the surface of the foam ceramics, improve the comprehensive performance of the foam ceramics.

(3) Silicon carbide foam ceramics in the use of liquid filtration is not easy to be corroded by acids and alkalis, will not cause pollution of the filtered metal liquids, and can be used through the water and gas backwash, so that the filter can be used twice and will not reduce the filtration efficiency, significantly reducing enterprise costs.

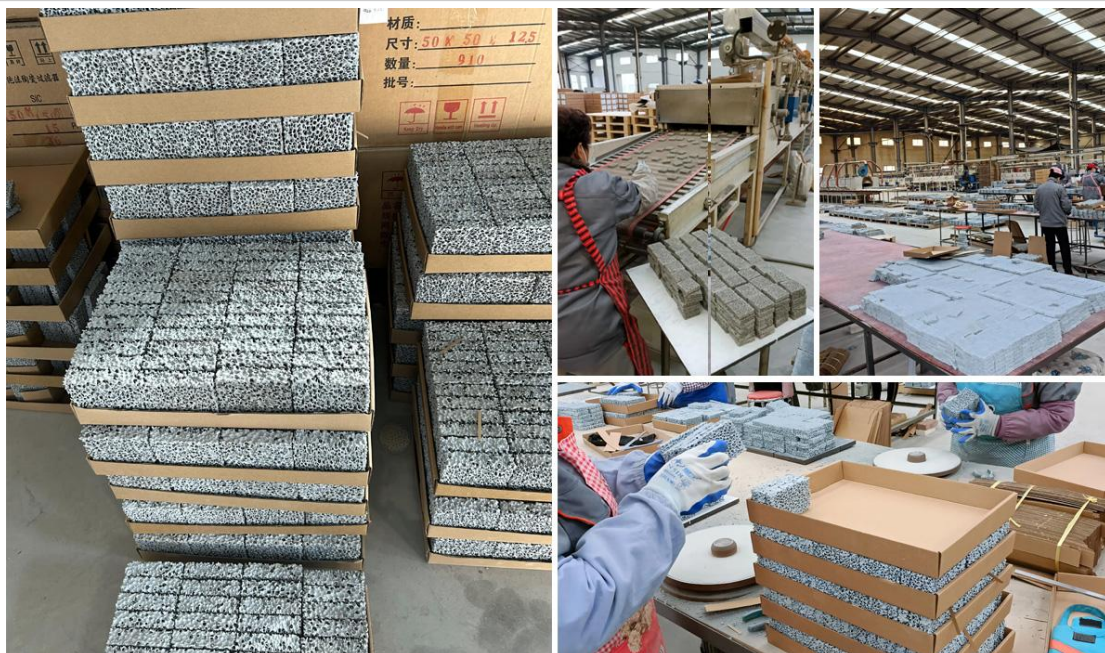
(4) foam silicon carbide ceramic material molding processing performance is also better, diamond tool can easily cut off, need to grind when available diamond wheel. By changing the processing conditions, the foam silicon carbide ceramics can be simply processed into the desired shape.

Specification for Iron casting

 Dimension (mm)	Pouring Rate (kg/s)		Filtration Capacity (kg)	
	Grey Iron	Ductile Iron	Grey Iron	Ductile Iron
	40×40×22	4	3	65
50×50×22	6	4	100	52
75×50×22	9	6	150	75
75×75×22	14	9	220	100
100×50×22	12	8	200	100
100×75×22	18	12	300	150
100×100×22	25	16	400	200
150×150×22	50	36	900	450

Physical and Chemical Properties:

Material	Silicon Carbide
Color	Grey black
Pore Density	8-60ppi
Porosity	80-90%
Refractoriness	≤1500℃
Bending Strength	>0.8Mpa
Compression Strength	>0.9Mpa
Volume-weight	0.35-0.5g/cm ³
Thermal shock resistance	6times/1100℃
Application	Ductile Cast Iron, Malleable Cast Iron, Gray iron and other Cast Iron



Product Applications:

1. Catalyst carrier

Silicon carbide foam ceramics have the advantages of high porosity, thermal conductivity and mechanical strength, anti-oxidation, corrosion resistance, etc. Its surface is uneven and has many micropores, this special network structure greatly increases the contact area between the two phases, all of these characteristics predict that the silicon carbide foam ceramics will replace the traditional silicon dioxide, alumina ceramics, and activated carbon as a new generation of catalyst carriers.

2. Filter

The low pressure loss, heat and thermal shock resistance, and soot trapping efficiency of silicon carbide foam ceramics make them promising filters for soot traps in diesel engines.

3. Applications in Biology

Silicon carbide foam ceramic materials have good biocompatibility and controllable pore size, which can make them useful for repairing complex shapes and long segments of weight-bearing bone defects.

4. Acoustic materials

Silicon carbide foam ceramics can be used for sound absorption and noise reduction due to their unique reticular structure.

5. Chemical applications

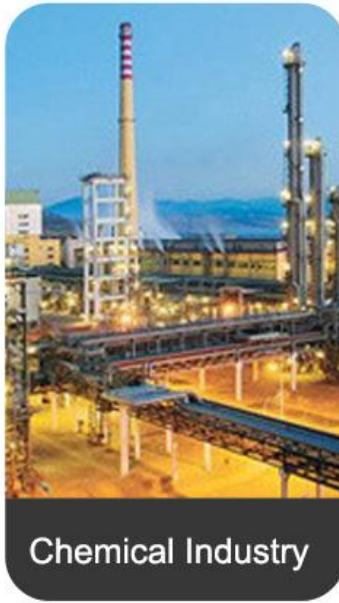
Silicon carbide foam ceramics can be applied to foam structural packing, foam regular packing, and can also be used as foam tower disk. It can be used in chemical industry for steam generator, high pressure adiabatic burner, radiation burner, etc. It greatly improves the heat transfer coefficient and strengthens the combustion process.

6. Other applications

Silicon carbide foam ceramics can also be used in materials for heat treatment of electronic components, fluid bed base plates, humidifiers, water boilers, microbial carriers and other fields.



Oil Industry



Chemical Industry



Wastewater
Purification



Gas Industry



Sewage Treatment



Environmental
Protection

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FAQ:

1.MOQ: 100m²

2.Delivery time: around 20days after confirm order.

3.Payment term: T/T 30% deposit in advance, 70% balance before shipment date.