



Ferro Fanavarn Ceram

The largest manufacturer of ceramic foam filters in the Middle East
The reliable companion of the casting industry



About us

Ferro Fanavaran Ceram Company is recognized as a knowledge-based company as one of the world leaders in the design, engineering and production of ceramic foam filters, relying on high quality, professional services and technical innovation.

By establishing an advanced factory in Iran and by reviewing and localizing the industrial designs of the reputable German company Foseco, ferro ceram has succeeded in producing a wide range of ceramic filters with high performance, durability and stable quality.

In addition to meeting the needs of domestic industries, the products of the ferro ceram are also present in international markets and play an effective role in earning foreign exchange for the country by increasing exports.

Our team, consisting of managers, scientists, engineers and production specialists, is always by your side with an unparalleled commitment to providing high-quality products, advanced technical knowledge, excellent customer service and technical support.

Products

The ceramic foam filters produced by Ferro Ceram are designed with a three-dimensional structure and uniform porosity to effectively remove impurities from molten metals to enhance the quality of cast components.

Ceramic foam filters are made from materials With the resistance to high temperatures and thermal shock, that are offered in various sizes to serve both ferrous and non-ferrous part casting industries.



Applications of ceramic foam filters



Sensitive industrial components



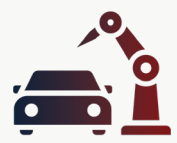
Steel and cast iron casting



Aluminum and alloys casting



Aerospace industry



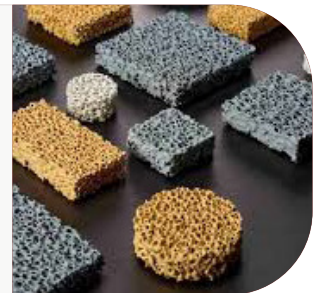
Automotive industries

Advantages of ceramic foam filters

Reduction of molten metal turbulence Flow process during casting.



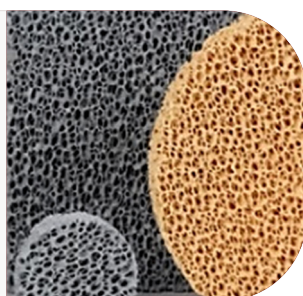
Reduction of surface and structural defects.



Improvement of the mechanical and physical properties of the casting parts.



Impurities such as slag and non-metallic inclusions are removed



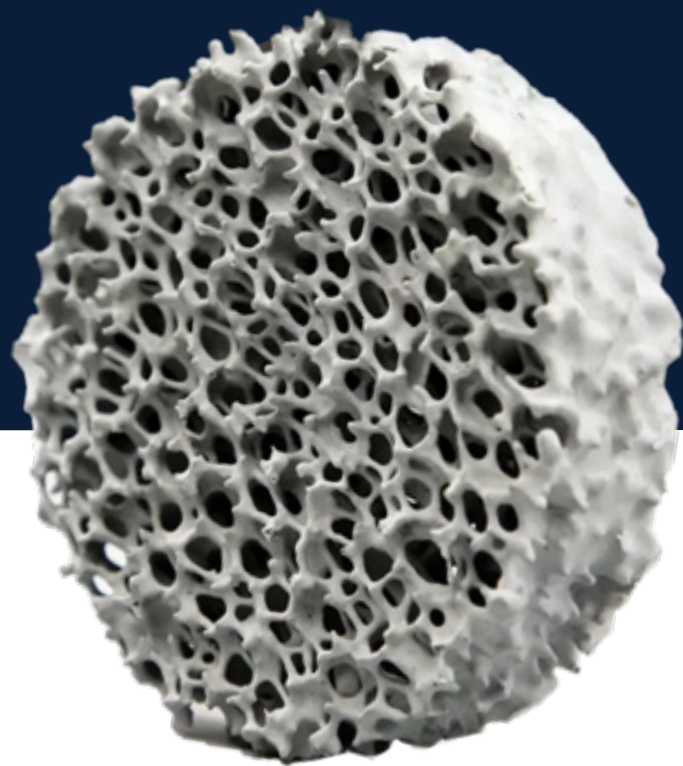
Lower machining costs for cast components.



SiC

Ceramic Foam Filter

Silicon carbide ceramic foam filters are specifically used in the casting of ferrous metals (gray iron, ductile iron), non-ferrous alloys, and light metals. SiC Ceramic Foam filters improve molten metal flow and reduce inclusions, thereby enhancing casting quality; with high durability leads to reduced defects and lower production costs.



● Technical Specification Table of Ceramic Foam Filter

Chemical Composition	PPI	Porosity (%)	Color	Application temperature	Bending Strength (MPa)	Compressive Strength (MPa)	Bulk Density (g/cm ³)	Thermal Shock Resistance
SiC, Al ₂ O ₃ , SiO ₂	10 – 20	80–90%	Gray	Max 1550°C	0.9 ≤	1.2 ≤	0.4 – 0.55	1100°C (Room temperature 6 times)

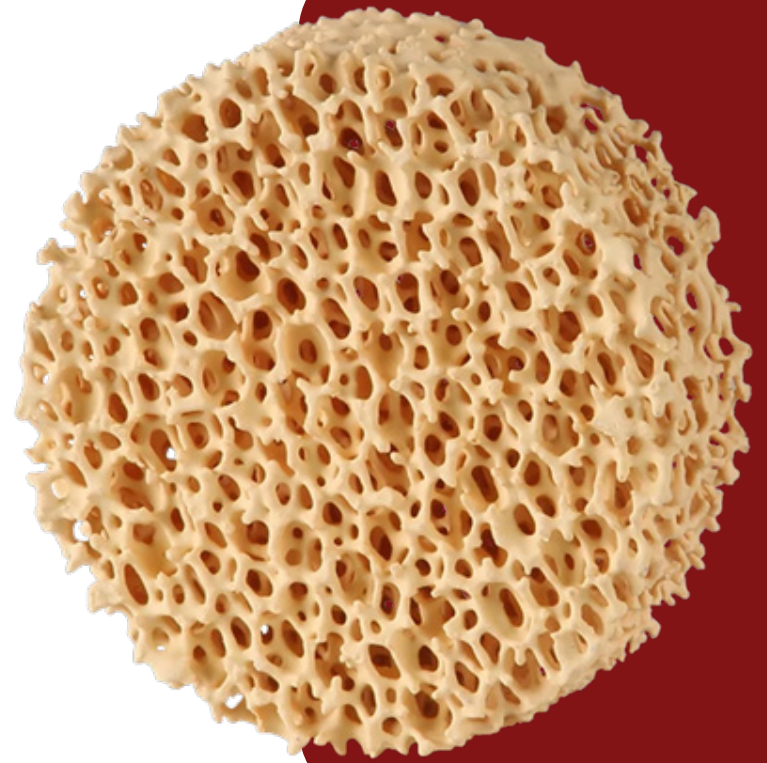
● Casting Capacity Table of SiC Ceramic Foam Filters Based on Filter Size and Metal Type

Size (mm)	10 ppi				20 ppi	
	Capacity (kg)		Flow Rate (kg/s)		Capacity (kg)	Flow Rate (kg/s)
	Gray Iron	Ductile Iron	Gray Iron	Ductile Iron	Gray Iron	Gray Iron
40×40×22	68	34	4	3	53	3
50×30×22	60	30	4	3	47	3
50×50×22	110	55	6	4	85	3.5
75×75×22	212	110	14	9	162	7
100×50×22	200	100	12	8	155	9
Dia 50×22	82	41	5	4	61	3
Dia 60×22	112	56	7	5	87	4

ZrO₂

Ceramic Foam Filters

Zirconia ceramic foam filters, with high thermal and mechanical resistance, are an ideal selection for casting high-temperature metals such as steel. ZrO₂ Ceramic Foam Filters dense structure effectively removes impurities and enhances molten metal quality.

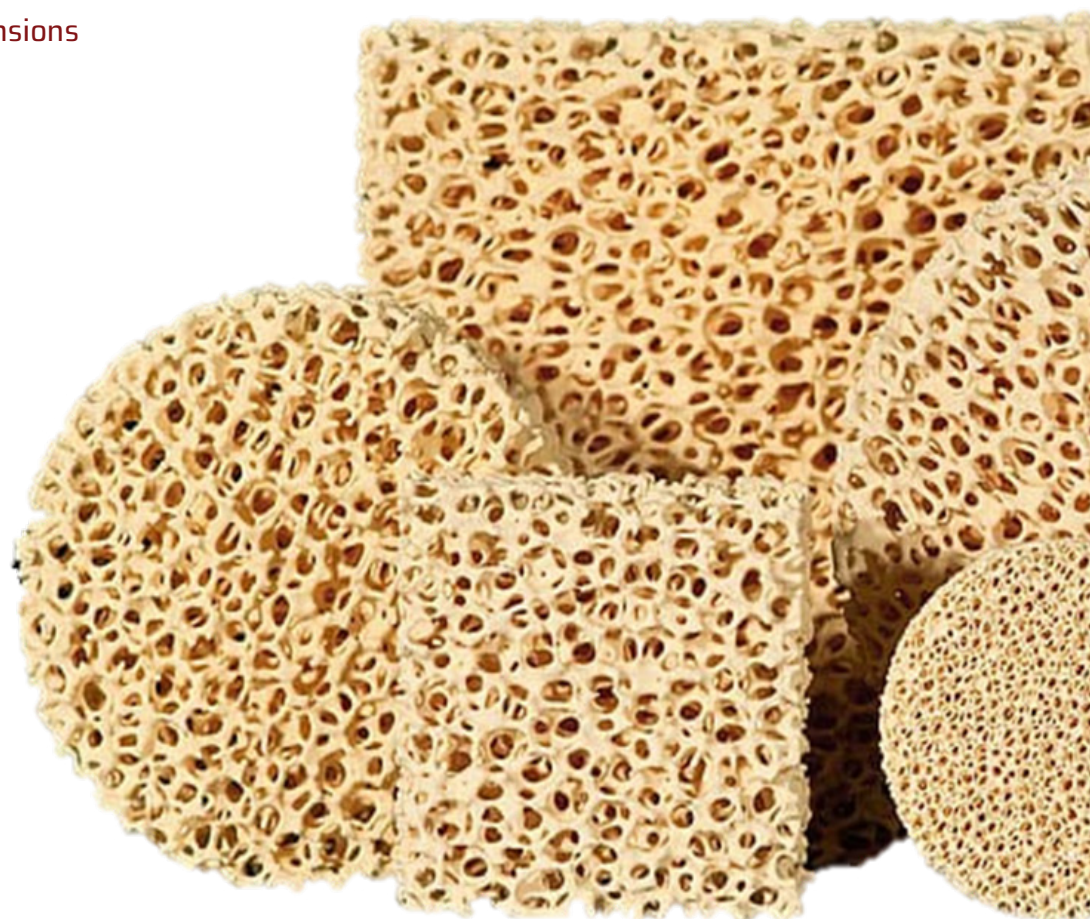


● Technical Specification Table of ZrO₂ Ceramic Foam Filter

Chemical Composition	PPI	Porosity (%)	Color	Application temperature	Bending Strength (MPa)	Compression Strength (MPa)	Bulk Density	Thermal Shock Resistance
ZrO ₂ ,SiO ₂	8 - 40	80-90%	Yellow	Max 1700°C	1 ≤	2 ≤	0.7 ~ 1.25 g/cm ³	1100°C (room temperature 6 times)

● Casting Capacity Table of ZrO₂ Ceramic Filters Based on Filter Dimensions

Size (mm)	10 PPI	
	Capacity (kg)	Flow Rate (kg/sec)
40×40×22	39	1.7
50×50×22	55	2.6
75×75×22	80	5.7
Dia 50×20	46	2
Dia 60×20	69	2.9





Al₂O₃

Ceramic Foam Filter

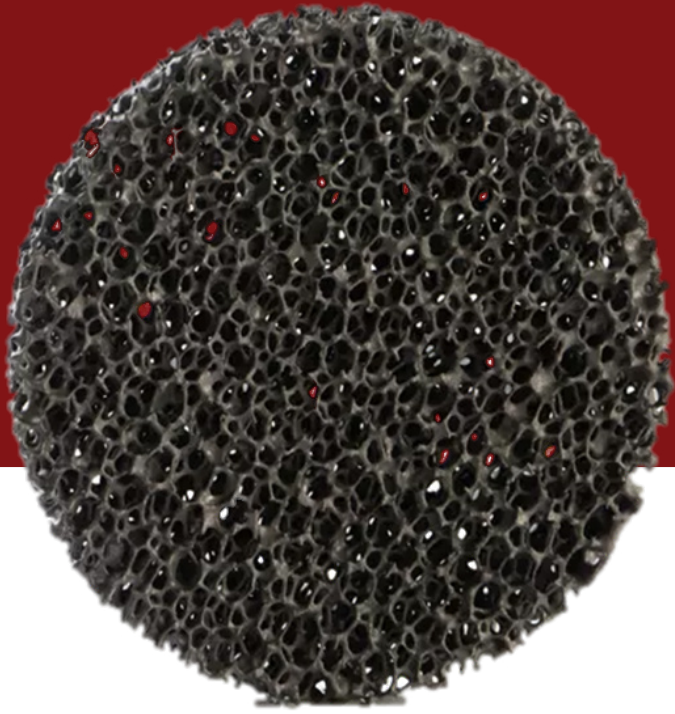
Alumina ceramic foam filters, offering reliable stability, are a cost-effective solution for casting aluminum and its alloys. Al₂O₃ Ceramic Foam Filters improve casting quality by removing impurities that are resistant to molten metal corrosion.

● Technical Specification Table of Al₂O₃ Ceramic Foam Filter

Chemical Composition	PPI	Porosity (%)	Color	Application temperature	Bending Strength (MPa)	Compressive Strength (MPa)	Bulk Density	Thermal Shock Resistance
Al ₂ O ₃ , SiO ₂	10 – 40	80–90%	White	Max 1200°C	0.9≤	1≤	0.35–0.55 g/cm ³	800°C (room temperature 5 times)

● Casting Capacity Table of Al₂O₃ Ceramic Filters Based on Filter Dimensions

Size (mm)	10 ppi		20 ppi		30 ppi	
	Capacity (kg)	Flow Rate (kg/s)	Capacity (kg)	Flow Rate (kg/s)	Capacity (kg)	Flow Rate (kg/sec)
40×40×22	30	1.7	20	1.5	17.6	1
50×50×22	48	2.6	32	2.2	27.5	1.5
75×75×22	108	5.7	73	4.9	62	3.4
Dia 50×20	37	2	25	1.6	22	1.1
Dia 60×20	54	2.9	38	2.2	31	1.8



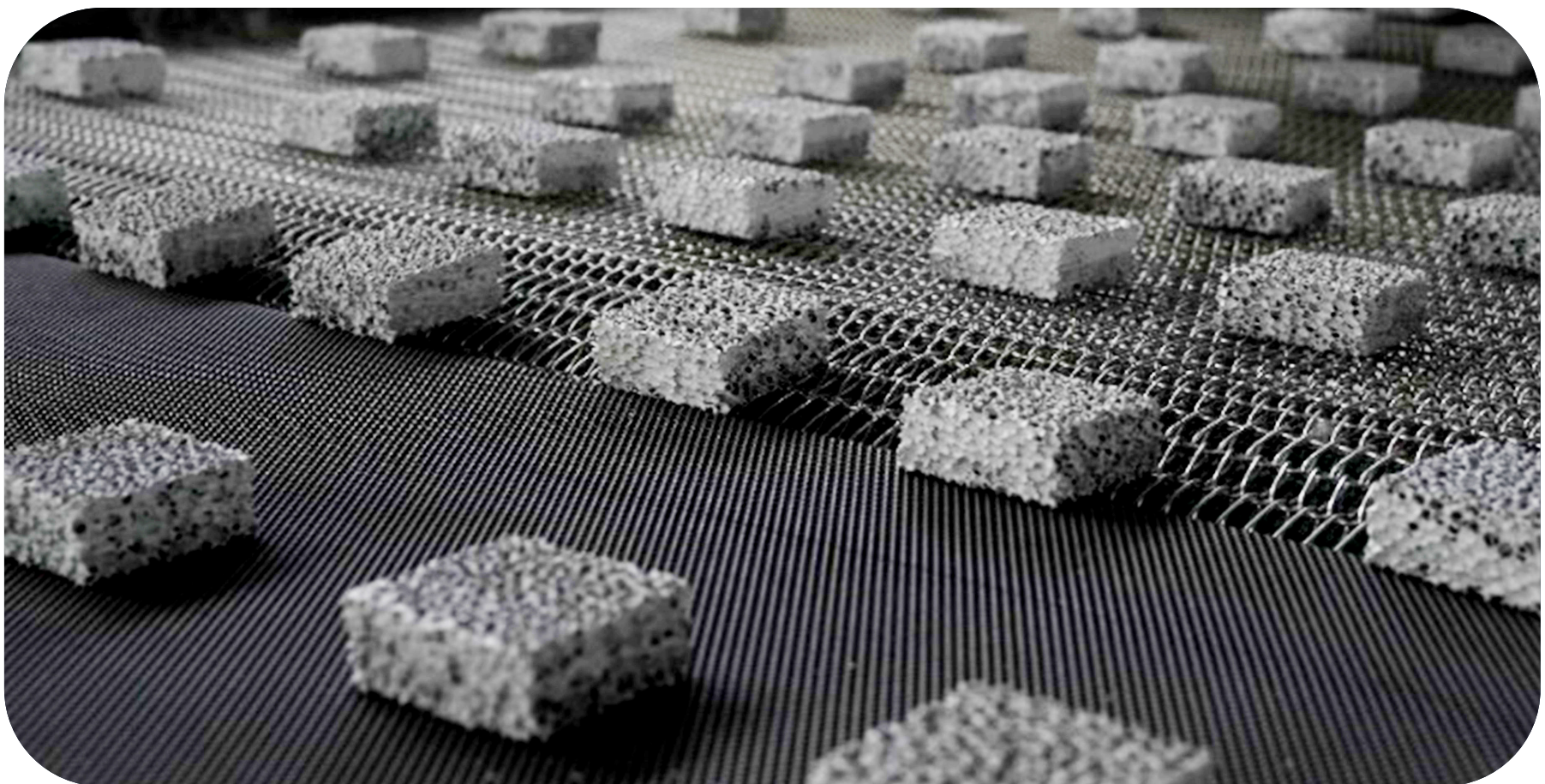
Graphite

Ceramic Foam Filter

Graphite ceramic foam filters, with high thermal conductivity and resistance to thermal shock, are a suitable selection for non-ferrous metal casting under specific conditions. Graphite Ceramic Foam Filters stable structure helps eliminate impurities and ensures uniform molten metal flow.

● Technical Specification Table of C (Graphite) Ceramic Foam Filter

Chemical Composition	PPI	Porosity (%)	Color	Application temperature	Bending Strength (MPa)	Compressive Strength (MPa)	Bulk Density (g/cm ³)	Bulk Density (g/cm ³)
C (Graphite), Al ₂ O ₃ , SiO ₂	10 – 30	70 ~ 85%	Dark gray – black	1600°C ≥	1.5 ≤	3 ≤	0.7 ~ 1g/cm ³	1100°C (Room temperature 6 times)





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