

Refractron Advanced Porous Ceramic

Filtration - Diffusion - Aeration - Wicking

Refractron has been designing and manufacturing resilient porous ceramics in its ISO certified, Rochester NY area, factory since 1984. The products are made from alumina and silicon carbide (SiC) formulations that create parts with pore sizes ranging from 0.1 to over 1000 microns. The high purity 85-91% glass-bonded and 99% self-bonded alumina products are specified because they offer efficiency, durability, and compatibility, while the proprietary reaction bonded SiC offers unprecedented creep resistance at over 1000°C. Critical applications include those dewatering minerals, manufacturing semiconductor wafers, treating wastewater and drinking water, processing chemicals, carbonating beverages, filtering hot gases and creating a sustainable environment for aquaponics. Refractron has expertise making small 3mm parts, as well as large 1.5M tubes and 800mm plates. An onsite grind shop allows parts to be machined for tight tolerances.

Please contact us for an engineering assessment to see if our products and services can improve your product quality, improve your process reliability, save you money and bolster your supply chain.

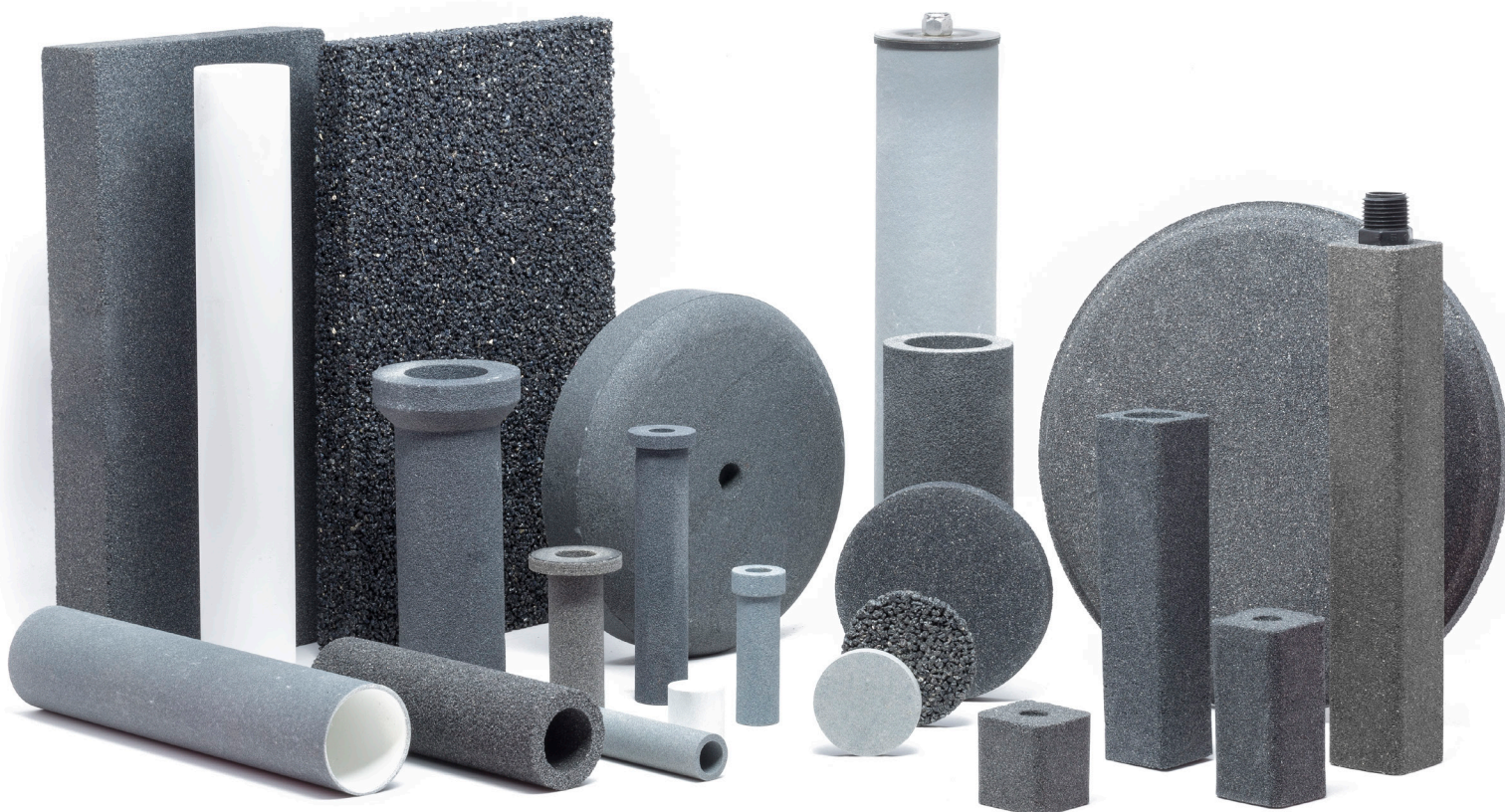
Enhance Operational Effectiveness

- ✓ Increase Gas Transfer Efficiency
- ✓ Durable Material with Proper Design
- ✓ Easy Installation

Reduce Operating Cost Maximize Production

Lowest Total Cost

- ✓ Reduce Energy Consumption
- ✓ Cleanable - Reusable
- ✓ Fair Market Price



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PROCESS	APPLICATION	PRODUCT
Filtration	Sand Filter AWB Filter Point of Use Water Industrial Filtration Catalyst Recovery Pharmaceutical / Medical Hot Gas	Underdrain Plate Tube Filter Membrane Filter Tubes / Membranes / Plates Candles
Diffusion Aeration	Waste Water Treatment Fluidized Bed Ozonation Degassing Dissolved Air Flotation	Disc Diffusers Dome Diffusers Tube Diffusers UNI-DISC™
Wicking	Medical Device Fingerprint pads Diffusers Sensors	Plates Rods Tubes

DIFFUSERS

FILTERS

WICKS



Property	Test Method	SAF 0.3	AF	WAF	MeAF	SF
Color		White	Light Gray	White	White/Gray	Dark Gray
Chemistry (%)	ICP & EDS					
Al ₂ O ₃		99.56	87	91	87	13
Na ₂ O		0.38	---	---	---	---
Fe ₂ O ₃		0.02	---	---	---	---
SiC		---	---	---	---	84
SiO ₂		0.02	8	7	8	---
MgO		0.01	---	---	---	---
CaO		0.01	---	---	---	---
Other		---	5	2	5	3
Density (g/cc)	ASTM C-373	2.55	2.10	2.10	2.10	1.80
MOR (MPa) RT	ASTM C-583	20	26	25	26	26
Porosity (%)	ASTM C-373	31	43	43	43	39
Mean Pore Diameter (µm)		0.2	---	---	---	---
Max Pore Size (µm)		0.3	---	---	---	---
Maximum Material Use Limit (°C)		1300	800	800	800	1200
Thermal Shock Resistance	N/A	Excellent	Good	Good	Good	Excellent

