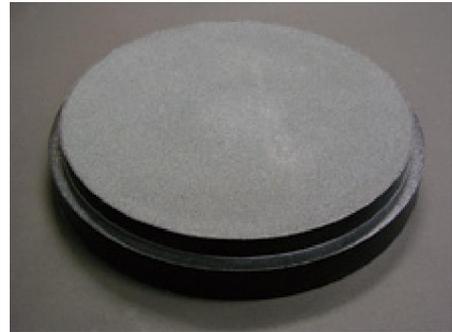


## Introductions

The range of Innovacera **porous ceramic** filters are made from aluminum oxide and silicon carbide. The strong, uniform porous ceramic has 40-50% open porosity with a tortuous pore structure and is available in pore sizes ranging from 0.25 to 90 microns. Monolithic, single grade, aluminum oxide porous ceramic is available in 6, 15, 30, 50, 60 and 120 micron pore sizes.



**Aluminum oxide** is the most standard material, with a density of 2.2 g/cc, and has a maximum operating temperature of 1400 F (800 C).

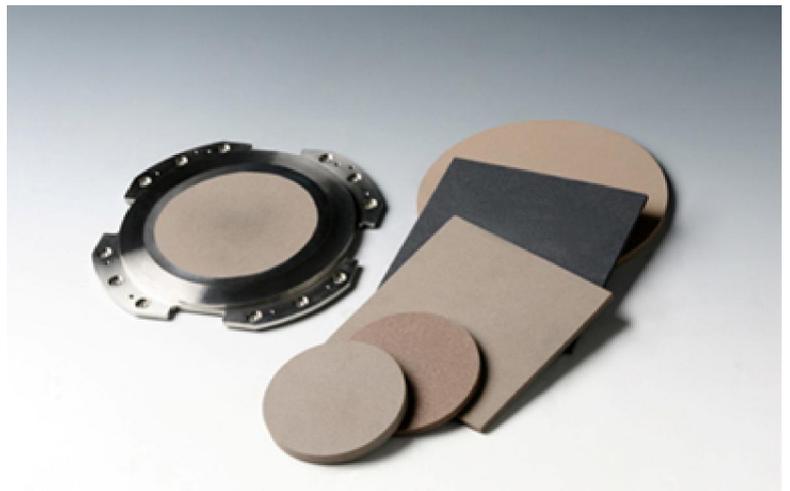
**Silicon Carbide** is more of a special order material, with a density of 1.9 g/cc, for more aggressive applications and has a maximum operating temperature of 1800 F (1000 C) and has excellent thermal shock resistance. These standard porous ceramic materials are naturally hydrophilic. For special applications they may be coated or impregnated to achieve a certain performance characteristic.

### Specifically tailored techniques include:

- Spraying
- Brushing
- Backwashing
- Oven firing
- Dilute acid cleaning
- Solvent cleaning plus steam
- Ultrasonic cleaning

### The range of porous ceramic products includes:

- Membrane and monolithic tubes
- Discs
- Plates and other components made from aluminum oxide and silicon carbide where tightly controlled pore size and porosity is critical.



# Applications and Properties

## Porous Ceramics

- Used in tough applications to replace porous metal or as an alternative to plastic or fabric media
- Cleaned and reused using a variety of methods depending on the contaminant to be removed

## Applications

- Filters for gases and liquids
- Capillary Electrophoresis
- Filtration for heavy metal ions (Cr, Ni etc) in water
- High temperature chemical support for gas absorption
- High efficiency flow through catalytic supports
- Gas burners
- Chromatography
- Micro trapping systems and bio-catalytic supports
- Vacuum holding plates (vacuum chuck)
- Nano-membrane supports for sensor applications
- Micro-bubble diffusers
- Fine or micro channels for electrophoresis
- Chemical or bio reactor

## Available Porous Ceramics

- Alumina Ceramic Components;
- Silicon Carbide Components
- Max Size: 450mm

## Properties

- Uniform pore sizes and high surface areas
- Excellent chemical resistance in both acid and alkaline conditions.
- Good wearing and erosion resistance.
- Withstands high temperature.
- Good rigidity and dimensional stability.
- Can be coated or immobilized with virtually any catalytic or other functional materials.
- High porosity and uniform pore size enable low resistance for both gas and liquid flow through applications.

# Materials and Specifications

ITEM	UNIT	Value
Al <sub>2</sub> O <sub>3</sub>	wt%	≥80
SiO <sub>2</sub>	wt%	16-18
Density	g/cm <sup>3</sup>	2.3—2.5
Hardness (HRA)	HRA ≥	50
Flexural Strength	MPa ≥	40
Compressive Strength	≥	600
Porosity	%	40
Pore Size	um	30, 50 and 60
Operating Pressure	MPa ≤	10
Acid Resistance	mg/cm <sup>2</sup> ≤	10.0
Alkali Resistance	mg/cm <sup>2</sup> ≤	20.0

## Specifications

We have supply standard size for various kinds of industrial, such as laser, semiconductor, chemical and aquaculture. Kindly pls find it as below charts;

Item	Specifications (mm)	Unit price (EX WorkUSD)	Materials	MOQ	Lead time	Porous(μm)	Color
1	Φ152×3.2	75.00	Al <sub>2</sub> O <sub>3</sub>	20 pcs	30	15	Light Coffee
		60.00				30/60	Deep Blue
2	Φ203×3.2	125.00	Al <sub>2</sub> O <sub>3</sub>	20 pcs	30	30/60	Deep Blue Light Coffee
3	Φ303×4.5	205.00	Al <sub>2</sub> O <sub>3</sub>	20 pcs	30	30/60	Deep Blue Light Coffee
3	Φ303×4.5	240.00	SiC	20 pcs	30	30	Deep Blue
4	230×230×3.2	170.00	Al <sub>2</sub> O <sub>3</sub>	20 pcs	30	30/60	Deep Blue Light Coffee

Our processing is available in a wide range of size and shapes as customer request.

INNOV◀CERA

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