

Porous Ceramic by Filtros

For more than 40 years C.L. Smith Industrial Company has provided abrasion resistant solutions and teaming up with Filtros Limited, who has been at it for over 90 years, is a natural fit. Filtros Limited porous ceramic materials are ideal for specialty filtration applications encountered in today's industrial environments.

With exceptional physical, thermal and chemical properties **Porous Ceramic** can be used to filter any material that does not attack glass. With a variety of grades, pore sizes and abilities to custom compound and shape the media, Filtros **Porous Ceramic** can be used in many high performance liquid or gas filtration systems.

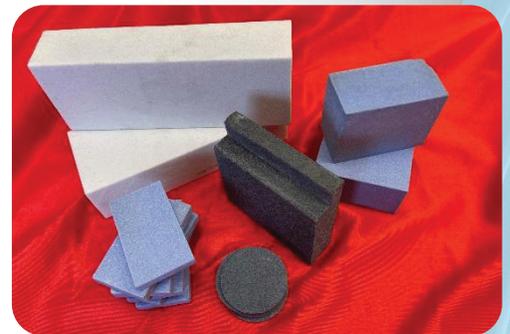
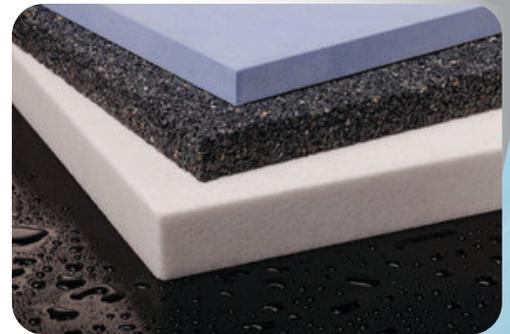
Applications:

- Fluidized Beds / Air Slides for;
 - Drying and Heat Processing
 - Blending and Separation
 - Investment Casting
 - Plastic Coating
- Underdrain plates for water treatment plants
- Potable water and tertiary sewage filtration
- High pressure/high temperature liquid and gas filtration
- Suction line filters
- Membrane supports
- Mining dewatering
- Liquid and gas chemical
- Hot gas articulate
- Food and beverage

Materials:

- **QF** – Glass bonded silica
- **FAO** – Ceramically bonded alumina
- **QR** – Resin bonded silica

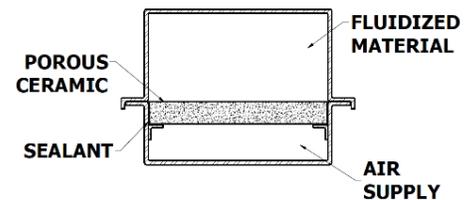
All materials are available in a variety of grades depending on your application. Resin bonded silica (QR) performs well in room temperature conditions with QR-130 fluidizing most materials. For higher temperature or special applications glass bonded silica (QF) or ceramically bonded alumina (FAO) are available in coarseness size to support the materials fluidization characteristics and volume of air available.



C.L. Smith Industrial's performance blue Filtros **Porous Ceramic** plates are excellent for fluidized beds and an excellent alternative to cloth/fabric air slide material. Air is blown under the ceramic plate, diffusing it and the material above has minimal friction between particles which causes it to act like a liquid.

Advantages:

- Abrasion resistance and mechanical strength
- Uniform air permeability throughout the plate surface
- Smooth conveying surface
- Resistant to temperatures as high as 2500 °F
- Chemically resistant to most alkali, organic and acid solutions
- High flexural strength and very high compressive strength
- Available in various pore sizes, configurations and custom blends
- Molded or machined to meet exacting requirements
- Available in a variety of sizes and configurations
- Existing housings can be retrofit to accept ceramic plates



With the ability to convey large tonnages over long distances, reduced energy requirements versus other mechanical systems, minimal dust collection requirements and low maintenance costs the performance blue Filtros **Porous Ceramic** system is an excellent choice!

Material Grade	FAO-10	FAO-20	FAO-30	FAO-40	FAO-50
Nominal Particle Retention (μ)	10	20	30	40	50
Approximate Particle Retention (μ)	1	2	3	4	5
Maximum Pore Diameter (μ)	60	80	100	120	140
Porosity	30-40%	30-40%	30-40%	30-40%	30-40%
Bulk Density (g/cc)	2.1-2.3	2.1-2.3	2.1-2.3	2.1-2.3	2.1-2.3
Flexural Strength (MOR) (psi)	6,000	5,500	5,000	4,500	4,000
Permeability @ 2" Water (cfm)	2-3	3-5	5-8	8-12	12-15

Material Grade	FAO-70	FAO-100	FAO-160	FAO-700	FAO-1200
Nominal Particle Retention (μ)	70	100	160	700	1,200
Approximate Particle Retention (μ)	7	10	20	100	200
Maximum Pore Diameter (μ)	170	210	300	800	1,300
Porosity	30-40%	30-40%	30-40%	30-40%	30-40%
Bulk Density (g/cc)	2.1-2.3	2.1-2.3	2.1-2.3	2.1-2.3	2.1-2.3
Flexural Strength (MOR) (psi)	3,500	3,000	2,500	1,500	1,000
Permeability @ 2" Water (cfm)	20-25	35-45	70-80	120-140	170-190

Please call C.L. Smith Industrial Company and speak with your Sales Representative for your air conveying needs.