

FILTRATION

PERMEABLE CERAMICS FOR HIGH PERFORMANCE FILTRATION

"Materials can also be molded and precision machined to meet exact customer requirements."

The complete line of Filtros' porous ceramic filters is used in high performance liquid or gas filtration equipment and systems and are available in various pore sizes and configurations. Ceramic filters can be molded or precision machined to meet the most exacting customer requirements.

Ceramic media can be used to filter any material that does not attack glass, including alkali solutions, organic solutions, and most acids. High flexural strength and very high compressive strength are inherent properties of these materials. Flexural strength of 6000 psi is attainable, generally without additional reinforcement of filtration elements. In addition, ceramic media are very resistant to high temperatures. Depending on the material selected and fluid being filtered, ceramics may be used for applications reaching 2000° F or higher.

Materials can be steam sterilized and will withstand a variety of cleaning procedures including the use of solvents combined with brushing, flushing, soaking or ultrasonic agitation. Backwashing processes, particularly in underdrain applications, are common. Also, plugged surface layers can be physically removed through sand-blasting, heat spalling, and other processes to return the filter to near original condition.

The exceptional physical, thermal, and chemical properties of ceramics and Filtros' ability to custom compound and shape the media make our filters ideal for a wide range of applications including underdrain plates for industrial filtration, potable water and tertiary sewage filtration; a broad variety of chemical and biological applications; high pressure and high temperature liquid and gas filtration; and membrane supports, and suction line filters.

Filtros
Ceramic Products

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**Solutions for Your
Filtration Needs from
Filtros Limited**

1 Heat and Gas

Low thermal expansion and high flexural and compressive strength make these filters excellent for high pressure and high temperature filtration applications. Particle size retention in gas filtration may be up to 10 times smaller than that for liquids. May be used in applications up to 2000° F.

2 Beverage

Ceramic filters are non-hazardous providing a safe filtration media for food products. Can be easily cleaned to near original condition. A wide range of filtration grades is available, depending on particle retention and flow requirements needed.

3 Bacteria

Ideal for filtration of biological applications where complete inertness is important. Suitable on instruments or as breathers that inhibit transfer of germs. Extra fine filtration grades are offered with nominal particle size retention as low as 0.5 microns.

4 Tri-Filter

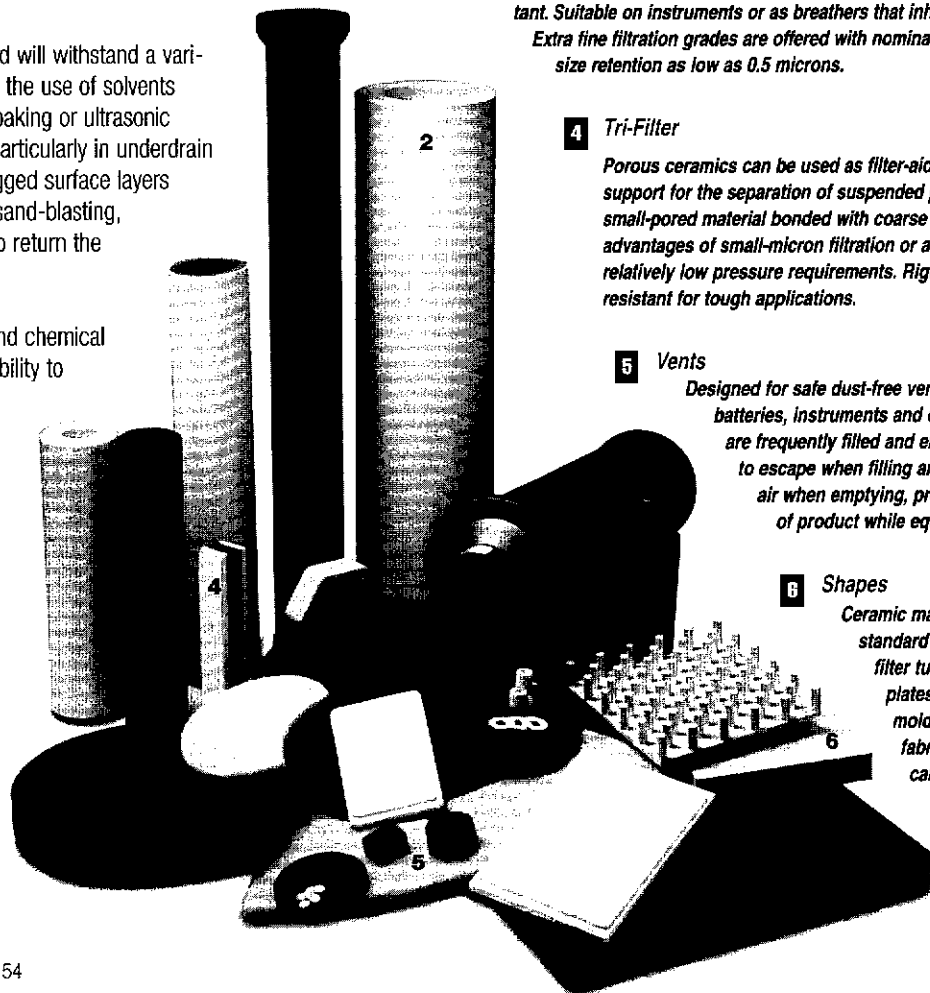
Porous ceramics can be used as filter-aid septum or membrane support for the separation of suspended particles. A thin layer of small-pored material bonded with coarse material provides the advantages of small-micron filtration or absorption with relatively low pressure requirements. Rigid and abrasion resistant for tough applications.

5 Vents

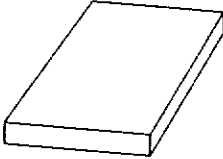
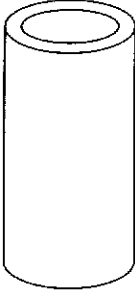
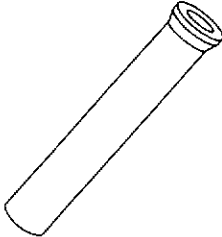
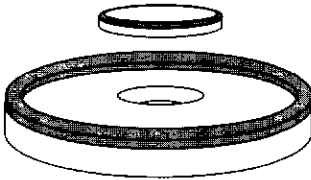
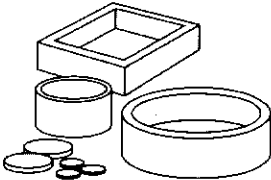
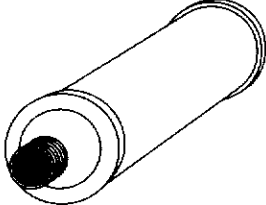
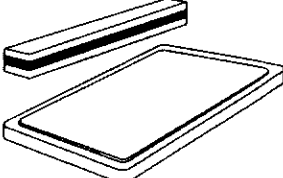
Designed for safe dust-free venting of storage tanks, batteries, instruments and other enclosures which are frequently filled and emptied. Allows air or gas to escape when filling and admits only filtered air when emptying, preventing contamination of product while equalizing pressure.

6 Shapes

Ceramic materials are available in standard 10", 20" or 30" long filter tubes; 12" x 12" filter plates; or any of a variety of molded, machined and fabricated shapes. Materials can also be molded and precision machined to meet exact customer requirements.



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APPLICATION	FILTRATION	EXAMPLE	EXPLANATION
UNDERDRAINS	1000 Microns Liquid		Plates are used as support for filter media such as sand or anthracite. Tubes as a support for filter aids such as diatomaceous earth. Support for any fiber or membrane.
FOOD AND CHEMICALS (COLD)	5-25 Microns Liquid		Ceramic is inert and suitable for food or chemical applications without contamination of product. Special bonds for acid or alkaline applications. Filtration grades down to 0.5 μ . Tubes available up to 4 inches in diameter and 30 inches or longer for use with or without precoat.
GAS OR CHEMICALS (HOT)	1-10 Microns Gas		Tubes, plates and special shapes useful up to 2000° F and down to 0.5 μ . Clean up waste gas for reuse, protection tubes for gas analysis.
BACTERIA	0.5 Microns Gas		Medical equipment and probe filters. Suitable on instruments or as breathers that inhibit transfer of germs.
VENTS	1-10 Microns Gas		Whether sticks or stones or just plain dirt. Evacuation of product without "glug" or splashing. Prevents contamination of product while equalizing pressure between a container and atmosphere. Also suitable for diffusing obnoxious or hazardous gasses.
ZEBRA MUSSELS (SMALL ANIMALS)	10-70 Microns Liquid		Don't want to precoat? Direct filtration of product down to 10 μ . or smaller without disposing of precoat.
DEHYDRATING- WICKING	5 Microns Liquid		Fine-pored media effectively absorbs liquids for measurement of chemical or electrolytic characteristics. The inertness of these materials is well suited for controlled release of chemical or biological agents.