Description

Pall® ceramic membrane filter elements are made of pure $\alpha$ Al$_2$O$_3$, the chemical stable variant of alumina and the membranes consist of Al$_2$O$_3$, ZrO$_2$ or TiO$_2$, depending on pore size.

Due to fine nuanced manufacturing steps, Schumasiv ceramic membrane filter elements can be produced with a wide range of pore sizes covering the whole range of micro and ultra filtration. The tube shaped mono and multi channel filter elements are suitable for applications under abrasive and chemical aggressive conditions. Schumasiv filter elements have an outstanding filtration efficiency at high flux rates, e.g. on oil / water separation applications.

Applications

Membranes
- Chemical Industry
  Process water, acid and lye filtration, catalytic recovery
- Oil / Water Separation
  Compressor condensate filtration, degreasing baths, washing water, coolant lubricants
- Waste Water
  Biomass separation, COD reduction
- Food and Beverage Industry
  Various applications for clarification

Technical Information

- Support
  $\alpha$-Al$_2$O$_3$

- Membranes
  - Microfiltration
    $\alpha$-Al$_2$O$_3$: 2 to 0.2 μm
  - Ultrafiltration
    ZrO$_2$ or TiO$_2$: 0.1 to 0.005 μm

- Maximum Pressure
  15 bar

- Maximum Temperature
  - Epoxy resin sealing
    120 °C
  - PTFE sealing
    200 °C

- Porosity (support)
  Approximately 33 %

Chemical Resistance$^1$

Schumasiv filter elements are resistant against most chemicals. Care should be taken when operating continuously with high acid concentrations at elevated temperatures. Schumasiv filter elements are not resistant against HF.

Resistance of Epoxy resin against strong acids and polar organic substances like short-chained carboxylic acids and alcohols is limited.

$^1$ As end use conditions can vary, it is the users responsibility to verify compatibility with their specific use conditions.
General Information

- Module housings are manufactured from stainless steel and are available for all geometries.
- Module housings can be supplied containing up to 28 m² of membrane surface area.
- All connection variations are possible.

Ordering Information

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<th>Unit</th>
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<th>01/16</th>
<th>07/6</th>
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<td>Number of Channels</td>
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³ at 1000 mm length.
² standard length, 1200 mm possible, other dimensions upon request.
² end sealing with Epoxy resin (all others with PTFE sealing).

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