Description

Schumasiv ceramic membrane filter elements are made of pure $\alpha\text{Al}_2\text{O}_3$, the chemical stable variant of alumina and the membranes consist of $\text{Al}_2\text{O}_3$, $\text{ZrO}_2$ or $\text{TiO}_2$, 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  
  $\alpha\text{Al}_2\text{O}_3$
- Membranes
  - Microfiltration  
    $\alpha\text{Al}_2\text{O}_3$: 2 to 0.2 μm
  - Ultrafiltration  
    $\text{ZrO}_2$ or $\text{TiO}_2$: 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 36 m² of membrane surface area.
- All connection variations are possible.

Ordering Information

<table>
<thead>
<tr>
<th>Schumasiv (MF) Unit</th>
<th>01/7</th>
<th>01/16</th>
<th>07/6</th>
<th>19/3.3</th>
<th>31/2.8</th>
<th>19/6</th>
<th>37/3.6</th>
<th>61/3.1</th>
<th>19/8</th>
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<tbody>
<tr>
<td>Number of Channels</td>
<td>1</td>
<td>1</td>
<td>7</td>
<td>19</td>
<td>31</td>
<td>19</td>
<td>37</td>
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<tr>
<td>Channel Diameter</td>
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<td>Outer Diameter</td>
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<tr>
<td>Membrane Surface</td>
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<td>0.022</td>
<td>0.050</td>
<td>0.132</td>
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<td>1000</td>
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<td>1000</td>
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<td>88519151</td>
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<td>89582268</td>
<td>88519311</td>
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1 at 1000 mm length.
2 standard length, 1200 mm possible, other dimensions upon request; 19/6 also available in 1500 mm length.
3 end sealing with Epoxy resin (all others with PTFE sealing).

Please contact Pall for enquiries relating to dimensions not mentioned above.