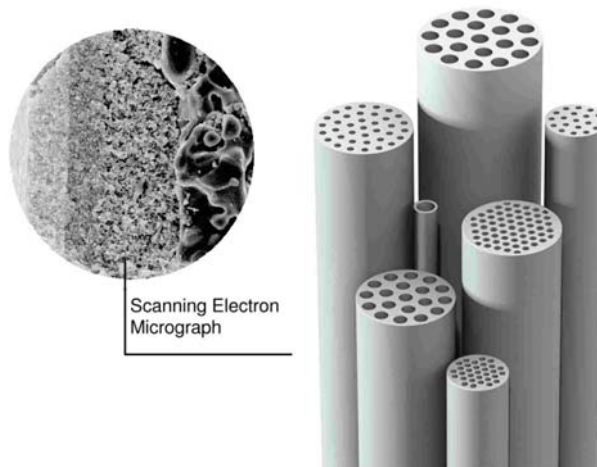


## Schumasiv™ Ceramic Membrane Filter Elements

### 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.



Scanning Electron  
Micrograph

### 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  $\mu\text{m}$
  - Ultrafiltration       $\text{ZrO}_2$  or  $\text{TiO}_2$ :      0.1 to 0.005  $\mu\text{m}$
- Maximum Pressure      15 bar
- Maximum Temperature
  - Epoxy resin sealing      120 °C
  - PTFE sealing      200 °C
- Porosity (support)      Approximately 33 %

### Chemical Resistance<sup>1</sup>

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.

<sup>1</sup> 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 m<sup>2</sup> of membrane surface area.
- All connection variations are possible.

## Ordering Information

Schumasiv (MF)	Unit	01/7	01/16	07/6	19/3.3	31/2.8	19/6	37/3.6	61/3.1	19/8
Number of Channels		1	1	7	19	31	19	37	61	19
Channel Diameter	mm	7	16	6	3.3	2.8	6	3.6	3.1	8
Outer Diameter	mm	10	25.4	25.4	25.4	25.4	41	41	41	52
Membrane Surface <sup>1</sup>	m <sup>2</sup>	0.022	0.050	0.132	0.200	0.292	0.358	0.418	0.652	0.478
Length <sup>2</sup>	mm	1000	1000	1000	1000	1200	1000	1000	1200	1000
Part Number for 1.2 µm Membrane	mm	88501101	89582262	89582267	88519151	---	88519810 <sup>3</sup>	88537091	---	89580914 <sup>3</sup>
Part Number for 0.6 µm Membrane	mm	88501091	89582263	89582268	88519311	89581045 0.8 µm	88519611	88537071	89582317 0.8 µm	89580370
Part Number for 0.2 µm Membrane	mm	88501041	89582264	89582269	88519001	89580973	88519021	88537011	89582318	88519401
Part Number for 0.05 µm Membrane	mm	88501051	89582265	89582270	88519041	89580972	88519101	88537001	89582319	88519391
Part Number for 0.005 µm Membrane	mm	88501061	89582266	89582271	88519081	89581046	88519421	88537111	89582320	88519491

<sup>1</sup> at 1000 mm length.

<sup>2</sup> standard length, 1200 mm possible, other dimensions upon request; 19/6 also available in 1500 mm length.

<sup>3</sup> end sealing with Epoxy resin (all others with PTFE sealing).

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



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