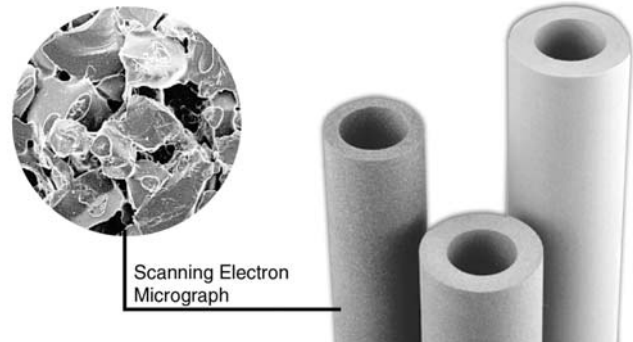


## Pall Schumalith® Filter Elements

### Description

Pall **Schumalith** filter elements are manufactured from a porous, ceramically bonded silicon carbide filter media that has a high mechanical strength.

This ceramic filter material is distinguished by its excellent thermal resistance as well as thermal shock resistance. For this reason **Schumalith** filter elements are well suited for the filtration of hot fluids with fast temperature changes. The high performing **Schumalith** filter elements are mainly used for high temperature applications.



Scanning Electron  
Micrograph

### Applications

- Particle filtration of liquids      Filtration of food basics
- Particle filtration of gases      Gas analysing, devices,  
filtration of hot gases
- Coalescer                              Coalescer for oil aerosols  
in hot gases

### Chemical Resistance<sup>4</sup>

**Schumalith** filter elements are resistant against acids, saline solutions and organic solvents, liquid or gaseous. They are not resistant to hydrofluoric acid. **Schumalith** filter elements are resistant up to pH 10 in the alkaline range.

<sup>4</sup> As end use conditions can vary, it is the users responsibility to verify compatibility with their specific use conditions.

### Technical Information

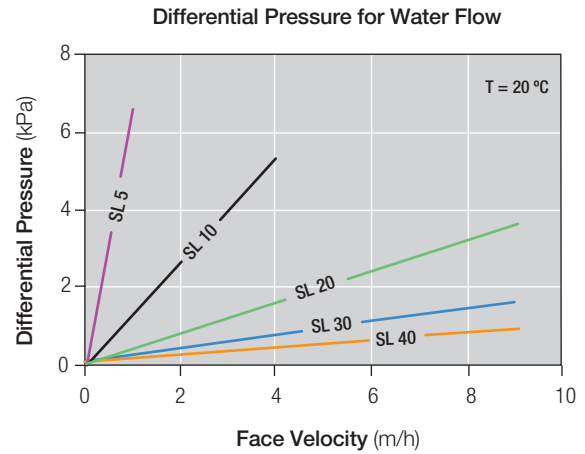
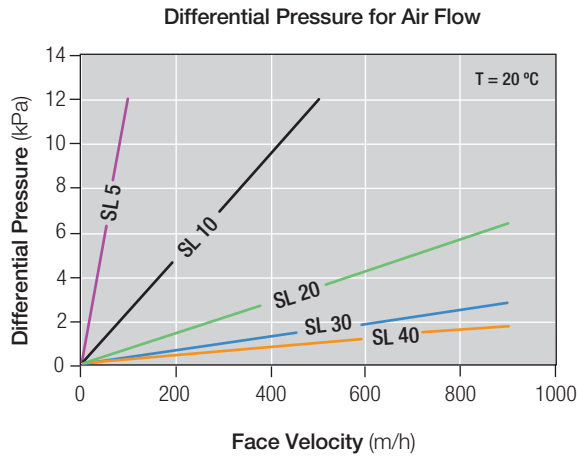
Schumalith (SL)	5	10	20	30	40
Filtration Grade of Liquids	<1 µm	5 µm	20 µm	30 µm	40 µm
Filtration Grade of Gases	<1 µm	2 µm	3 µm	6 µm	10 µm
Porosity	35 %	37 %	38 %	35 %	35 %
Material Density	1.9 g/cm <sup>3</sup>	1.9 g/cm <sup>3</sup>	1.85 g/cm <sup>3</sup>	1.9 g/cm <sup>3</sup>	1.8 g/cm <sup>3</sup>
Specific Permeability <sup>1</sup>	6 · 10 <sup>-13</sup> m <sup>2</sup>	30 · 10 <sup>-13</sup> m <sup>2</sup>	105 · 10 <sup>-13</sup> m <sup>2</sup>	235 · 10 <sup>-13</sup> m <sup>2</sup>	375 · 10 <sup>-13</sup> m <sup>2</sup>
Bending Strength <sup>2</sup>	>25 MPa	>30 MPa	>20 MPa	>15 MPa	>8 MPa
Maximum Temperature Resistance <sup>3</sup>	1000 °C	1000 °C	1000 °C	1000 °C	1000 °C
Thermal Expansion Co-efficient (25 - 1000 °C)	5.0 · 10 <sup>-6</sup> /K	5.0 · 10 <sup>-6</sup> /K	5.0 · 10 <sup>-6</sup> /K	5.2 · 10 <sup>-6</sup> /K	5.2 · 10 <sup>-6</sup> /K
Dimensions (Do / Di)	70 / 40 mm	70 / 40 mm	70 / 40 mm	70 / 40 mm	60 / 30 mm

<sup>1</sup> Calculated from Differential Pressure AIR

<sup>2</sup> O-Ring strength, compression

<sup>3</sup> Depending upon operating conditions

## Flow vs Differential Pressure



## General Information

- Machining is possible using diamond tools.
- Elements can be glued using commercial or special ceramic glues.
- Careful consideration should be taken regarding operating temperature and chemical resistance.

## Ordering Information

Part Number	SL	Type	Do / Di (mm)	Length (mm)	Area (m <sup>2</sup> )	Weight (kg)
89582110	Cylinder	20	30 / 15	135	0.013	0.13
89452195		5	40 / 20	135	0.13	0.24
88297200		10	40 / 20	135	0.13	0.24
89452091		20	40 / 20	135	0.13	0.25
88143500		5	50 / 20	135	0.16	0.41
89450934		10	50 / 20	135	0.16	0.41
88033400		20	50 / 20	135	0.16	0.42
88143900		5	70 / 40	1000	0.22	4.8
88173200		10	70 / 40	1000	0.22	4.8
89581466		20	70 / 40	1000	0.22	4.8
89580301		30	70 / 40	1000	0.22	4.8
88183900		40	70 / 40	1000	0.22	4.8
89580701		5	60 / 40	1000	0.19	2.9
88217700		20	60 / 40	1000	0.19	2.9
89260475	Candle <sup>5</sup>	20 KK	60 / 40	1500	0.28	4.6
89452006		20 KK pin	60 / 40	1500	0.28	4.6

<sup>5</sup> Semi-spherical head

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



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