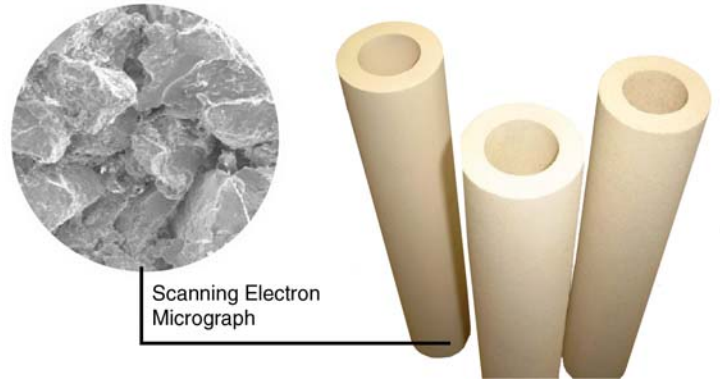


## Pall Aerolith® S Filter Elements

### Description

Pall **Aerolith S** filter material is a further development of the well-known Pall® product **Aerolith** with improved properties. Composed of selected high quality ceramic raw materials, the aluminosiliceous filter material **Aerolith S** is produced in a controlled production process as a cylinder, candle or tile. The special merits of **Aerolith S** filter elements are the higher mechanical stability as well as an improved pH resistance in the alkaline range. Due to the porous labyrinth structure with high particle storage capacity, **Aerolith S** filter elements are well suited for depth filtration applications up to temperatures of 700°C.



### Applications

#### Cylinders

- Particle filtration of Liquids      Acids, water and alcohol
- Particle filtration of Gases      Process gases, mixed gas, air, sewer gas, natural gas, and liquid gas
- Coalescer      Compressed air, nitrogen and carbon dioxide
- Storing Media      Water, colour and ink
- Vacuum Lance      Retention of fire extinguishing powder

#### Plates

- Nutsches      Mud thickening

### General Information

- Porous **Aerolith S** ceramic is approved for the utilization in drinking water according to German regulations DVGW W270 and the KTW recommendation.
- **Aerolith S** filter elements can be machined using hard metal tools.
- Ceramic elements are to be handled with care.
- Elements can be easily glued using commercial glues which Pall can supply. Consideration must be paid to operating temperature and chemical resistance.
- Pall can supply a variety of element fixing systems.

### Chemical Resistance<sup>3</sup>

**Aerolith S** filter elements are resistant against most acids, saline solutions and organic solvents, liquid or gaseous. It does not resist hydrofluoric acid. **Aerolith S** filter elements are resistant up to pH 10 in the alkaline range.

<sup>3</sup> As end use conditions can vary, it is the users responsibility to verify compatibility with their specific use conditions

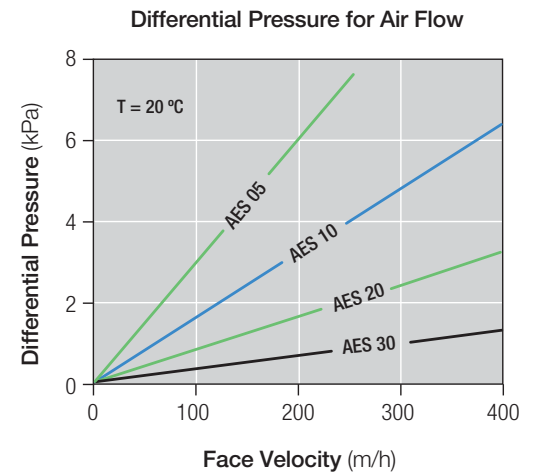
## Technical Information

## Flow vs Differential Pressure

Aerolith S (AES)	Cylinders / Plates			
	AES 05	AES 10	AES 20	AES 30
Filtration of Gases <sup>1</sup>	< 1 µm	1.5 µm	2.5 µm	5 µm
Porosity	40 %	40 %	40 %	40 %
Material Density	1.5 g/cm <sup>3</sup>	1.5 g/cm <sup>3</sup>	1.5 g/cm <sup>3</sup>	1.5 g/cm <sup>3</sup>
Specific Permeability	25 10 <sup>-13</sup> m <sup>2</sup>	50 10 <sup>-13</sup> m <sup>2</sup>	100 10 <sup>-13</sup> m <sup>2</sup>	250 10 <sup>-13</sup> m <sup>2</sup>
O-Ring Strength Compression	> 10 MPa	> 10 MPa	> 9 MPa	> 8 MPa
Maximum Temperature Resistance <sup>2</sup>	700 °C	700 °C	700 °C	700 °C
Expansion Co-efficient (25 - 200 °C)	3.0 10 <sup>-6</sup> /K	3.0 10 <sup>-6</sup> /K	3.0 10 <sup>-6</sup> /K	3.0 10 <sup>-6</sup> /K
Expansion Co-efficient (25 - 700 °C)	4.7 10 <sup>-6</sup> /K	4.7 10 <sup>-6</sup> /K	4.7 10 <sup>-6</sup> /K	4.7 10 <sup>-6</sup> /K
Dimensions (Do / Di)	70 / 40 mm	70 / 40 mm	70 / 40 mm	70 / 40 mm

<sup>1</sup> PSG Retention efficiency test 99.98%

<sup>2</sup> Depending on operating conditions



## Ordering Information

Part Number	Aerolith (AES)	Type	Do / Di (mm)	Length (mm)	Area (m <sup>2</sup> )	Weight (kg)
89580483	Cylinder	10	40 / 20	80	0.010	0.1
89580051		20	40 / 20	80	0.010	0.1
89580480		10	60 / 40	500	0.095	1.2
89580054		30	60 / 40	500	0.095	1.2
89580476		5	60 / 40	1000	0.188	2.4
89580477		10	60 / 40	1000	0.188	2.4
89580478		20	60 / 40	1000	0.188	2.4
89580053		30	60 / 40	1000	0.188	2.4
89580452		5	70 / 40	1000	0.220	3.9
89452208		10	70 / 40	1000	0.220	3.9
89580050		20	70 / 40	1000	0.220	3.9
89580055		30	70 / 40	1000	0.220	3.9

Part Number	Aerolith (AES)	Type	Length (mm)	Width (mm)	Height (mm)	Area (m <sup>2</sup> )	Weight (kg)
89582167	Plate	20	250	250	52	0.063	4.8

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



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