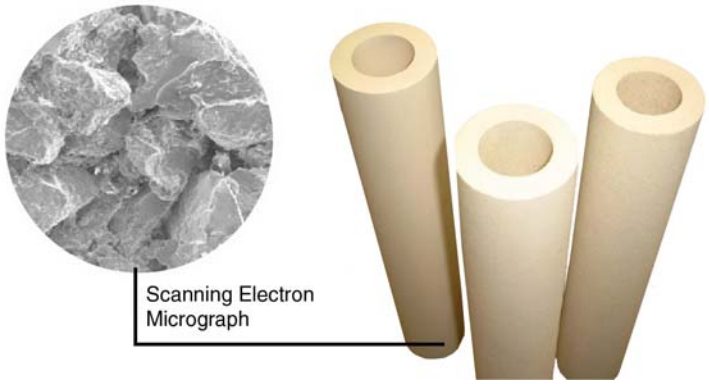
Pall Corporation

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 alumosiliceous 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

Chemical Resistance[3]

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.

[3] As end use conditions can vary, it is the users responsibility to verify compatibility with their specific use conditions

General Information

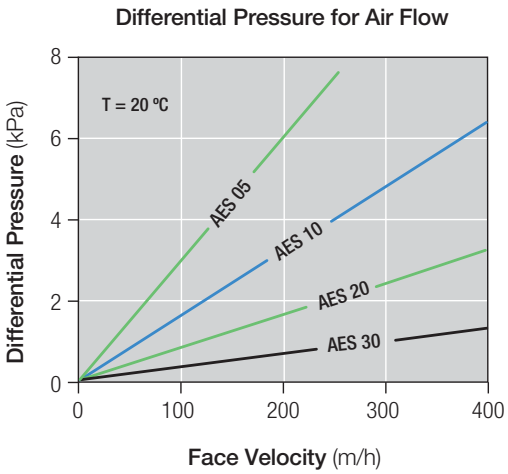
- Porous **Aerolith** S ceramic is approved for the utilization in drinking water according to German regulations DVGW W270 and the KTW recommendation.
- **Aerolith** S filter elements can be machined using hard metal tools.
- Ceramic elements are to be handled with care.
- Elements can be easily glued 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.

Technical Information

Aerolith S (AES)	Cylinders / Plates			
	AES 05	AES 10	AES 20	AES 30
Filtration of Gases[1]	< 1 µm	1.5 µm	2.5 µm	5 µm
Porosity	40 %	40 %	40 %	40 %
Material Density	1.5 g/cm³	1.5 g/cm³	1.5 g/cm³	1.5 g/cm³
Specific Permeability	25 10^{-13} m²	50 10^{-13} m²	100 10^{-13} m²	250 10^{-13} m²
O-Ring Strength Compression	> 10 MPa	> 10 MPa	> 9 MPa	> 8 MPa
Maximum Temperature Resistance[2]	700 °C	700 °C	700 °C	700 °C
Expansion Co-efficient (25 - 200 °C)	3.0 10^{-6}/K	3.0 10^{-6}/K	3.0 10^{-6}/K	3.0 10^{-6}/K
Expansion Co-efficient (25 - 700 °C)	4.7 10^{-6}/K	4.7 10^{-6}/K	4.7 10^{-6}/K	4.7 10^{-6}/K
Dimensions (Do / Di)	70 / 40 mm	70 / 40 mm	70 / 40 mm	70 / 40 mm

[1] PSG Retention efficiency test 99.98%
[2] Depending on operating conditions

Flow vs Differential Pressure



Ordering Information

Part Number	Aerolith (AES)	Type	Do / Di (mm)	Length (mm)	Area (m²)	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 (m²)	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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