

# Product Information

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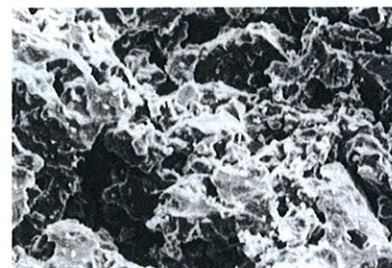
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## AEROLITH

Porous Silicate Ceramic

### 1. General Material Description

Special porous silicate granules made by SCHUMACHER are sintered with a siliceous bond to form a material of homogeneous composition - AEROLITH -, consisting mainly of crystalline and amorphous silicates. The colour of the AEROLITH products is white.

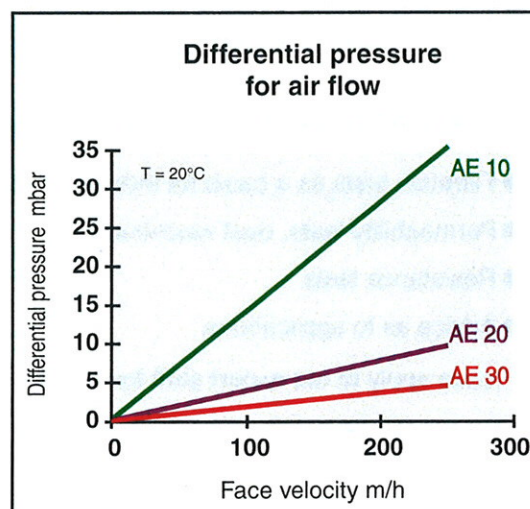
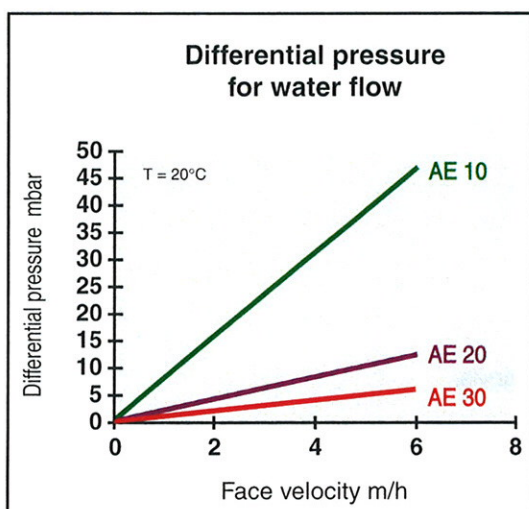


Scanning Electron Micrograph

### 2. Physical Properties

AEROLITH (AE)	Unit	Type		
		10	20	30
Mean Pore Size	μm	29	65	85
Porosity	%	45	42.5	42.5
Material Density	g/cm <sup>3</sup>	1,30	1.35	1.35
Specific Permeability	nPm	55	200	370
Bending Strength (O-Ring-Strength)	MPa	10	7	6
Max. Temperature Resistance	°C	500	500	500
Expansion Coefficient (25 - 500°C)	10 <sup>-6</sup> /K	14	14	14
Thermal Conductivity (200°C)	W/m K	1	1	1
Dimensions do/di	mm	70/40	70/40	70/40

### 3. Pressure Drop Diagrams



#### 4. Chemical Resistance

AEROLITH is resistant against acids, saline solutions and organic solvents, liquid or gaseous. It does not resist hydrofluoric acid. AEROLITH is resistant up to pH 9 in the alkaline range.

#### 5. Standard Dimensions

Cylinders			
Type	do / di (mm)	l (mm)	A (m <sup>2</sup> )
10	40/20	80	0.010
20; 30	60/40	1000	0.188
10; 20; 30	70/40	500; 1000	0.11; 0.22

Tiles				
Type	l (mm)	w (mm)	h (mm)	A (m <sup>2</sup> )
20; 30	250	250	50	0.063

Note: Special dimensions, special products and tolerances - on request.

#### 6. Applications

- Particulate filtration from liquids and gases:  
e.g. mixed gas filtration in the production of nitric acid
- Filtration with coalescing effect:  
e.g. compressed air filtration, oil separation
- Absorbent media with high absorbing and withholding capacity:  
e.g. absorbent pads
- Carriers for catalysts and microorganisms:  
e.g. in biotechnology, in the chemical industry and in waste water treatment
- Filter tiles as bases for Nutsche filters

#### 7. General Instructions

- Machining is possible using hard metal tools.
- Elements can be easily glued using commercial glues.  
Pay attention to operating temperature and chemical resistance.

#### 8. SCHUMACHER offers the following services:

- Filtration tests as a basis for industrial application
- Permeability tests, dust examinations
- Resistance tests
- Advice as to applications

Please apply to our expert staff for any further questions.