Description

Special porous silicate granules exclusively manufactured by Pall® are sintered with a siliceous bond to form Pall Aerolith porous ceramic, a material of homogeneous composition. This porous Aerolith ceramic consists mainly of crystalline and amorphous silicates.

Due to high porosity and the large internal surface, the porous Aerolith ceramic products offer a high storing capacity for particles and liquids. The labyrinth structure leads to an excellent separation efficiency at a simultaneously very low increase of differential pressure.

Porous Aerolith ceramic is distinguished by the large variety of configurations, and can be used in depth filtration applications of up to 500 °C (932 °F).

Applications

Cylinders and Flanged Candles
- Particle filtration for Liquids: Acids, water and alcohol
- Particle filtration for Gases: Process gases, air, sewer gas, natural gas and liquid gas
- Coalescer: Compressed air, nitrogen and carbon dioxide
- Storing Media: Water, colour and ink
- Aeration Element: Drinking water, mineral water and fish ponds
- Vacuum Lance: Retention of fire extinguishing powder

Plates
- Aeration element: Drinking water, mineral water and fish ponds
- Nutsches: Mud thickening

General Information

- Porous Aerolith ceramic 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 Resistance²

Porous Aerolith ceramic media is resistant to most acids, saline solutions and organic solvents, liquid or gaseous. It is resistant up to pH 9 in the alkaline range.

² As end use conditions can vary it is the users responsibility to verify compatibility with their specific use conditions.
### Technical Information

#### Aerolith (AE)

<table>
<thead>
<tr>
<th>Filtration Grade for Liquids</th>
<th>AE 10</th>
<th>Filtration Grade for Gases</th>
<th>AE 20</th>
<th>Porosity</th>
<th>AE 30</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 µm</td>
<td>1.5 µm</td>
<td>10 µm</td>
<td>30 µm</td>
<td>40 %</td>
<td>5 µm</td>
</tr>
<tr>
<td>1.35 g/cm³</td>
<td>1.40 g/cm³</td>
<td>1.30 g/cm³</td>
<td>40 %</td>
<td>200 10⁻⁶ m²</td>
<td>350 10⁻⁶ m²</td>
</tr>
<tr>
<td>Specific Permeability</td>
<td>65 10⁻⁻⁸ m⁻²</td>
<td>&gt;8 MPa</td>
<td>&gt;6 MPa</td>
<td>&gt;4.5 MPa</td>
<td></td>
</tr>
<tr>
<td>Bending Strength (O-Ring compression)</td>
<td>500 °C (932 °F)</td>
<td>500 °C (932 °F)</td>
<td>500 °C (932 °F)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expansion Co-efficient (25 - 500 °C)</td>
<td>14 10⁻⁶/K</td>
<td>14 10⁻⁶/K</td>
<td>14 10⁻⁶/K</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dimensions (Do / Di)</td>
<td>70 / 40 mm</td>
<td>70 / 40 mm</td>
<td>70 / 40 mm</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1 Depending on operating conditions

#### Flo vs Differential Pressure

**Differential Pressure for Air Flow**

**Differential Pressure for Water Flow**

**Ordering Information**

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Aerolith (AE)</th>
<th>Type</th>
<th>Do / Di (mm)</th>
<th>Length (mm)</th>
<th>Area (m²)</th>
<th>Weight (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>88001200</td>
<td>Cylinder</td>
<td>10</td>
<td>40 / 20</td>
<td>80</td>
<td>0.010</td>
<td>0.1</td>
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<td>88045500</td>
<td>Flanged Candle</td>
<td>10</td>
<td>60 / 40</td>
<td>1000</td>
<td>0.188</td>
<td>2.1</td>
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</table>

2 Rectangular head 70 x 15 mm

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Aerolith (AE)</th>
<th>Type</th>
<th>Length (mm)</th>
<th>Width (mm)</th>
<th>Height (mm)</th>
<th>Area (m²)</th>
<th>Weight (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>88059500</td>
<td>Plate</td>
<td>20</td>
<td>250</td>
<td>250</td>
<td>50</td>
<td>0.063</td>
<td>4.2</td>
</tr>
<tr>
<td>88062800</td>
<td></td>
<td>30</td>
<td>250</td>
<td>250</td>
<td>50</td>
<td>0.063</td>
<td>4.2</td>
</tr>
</tbody>
</table>

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

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Pall Corporation

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