Compfil™ PC
Sterile Depth Filter for Process Air and Gases

Compfil™ PC is a pleated depth filter with inner and outer guard and end caps made of stainless steel. Consisting of a three-dimensional borosilicate depth media, the PC achieves a void volume of 95%, ensuring a high containment capacity at high flow rates and low differential pressure. A retention rate of >99.99999995% related to 0.2μm > 99.99999995% related to 0.02μm is achieved during operation. The retention for nano-sized particles (0.003μm) is larger than 99.99999991% as verified in a DIN EN 1822 adopted test.

All components meet the FDA requirements for indirect contact with food in accordance with the CFR requirements (code of federal regulations) title 21 and EC/1935/2004 for indirect food contact use.

Advantages
• Non-fibre releasing filter element.
• Manufactured without use of binders or other chemical additives.
• Corresponds to cGMP requirements (current Good Manufacture Practice) and is manufactured according to DIN EN ISO 9001.
• PC has passed the toxicological test according to USP21 Class VI for plastics.
• High temperature and mechanical resistance for outstanding performance, minimised maintenance costs and production down time.
• High retention rate (bacteria, viruses and particles) down to three nano-metres to ensure product and process integrity.
• Suitable for sterilisation using VPHP and ozone.

Applications
• Aseptic packing
• Biotechnology
• Fermentation
• Chemicals
• Pharmaceutical
• Food and beverage (brewery, dairies)

Features and Benefits
• Outer guard and endcaps made of stainless steel
  High mechanical and thermal stability, good durability against chemicals and numerous aggressive gases. Temperature range from -20°C (-4°F) up to 200°C (392°F).
• Three-dimensional borosilicate depth filter media
  High waste containment capacity, low differential pressure, high flow rate.
• Biologically and chemically inert
  No breeding ground for separated microorganism.
• 200 sterilisation cycles guaranteed
  High economical efficiency and low filtration costs.
• 100% integrity tested
  Guaranteed quality
• Available in 13 sizes
  Optimum filter size for individual application.
### Materials of Manufacture

- **Filter media**: Borosilicate
- **Impregnation**: PTFE
- **Outer core**: SS 1.4301
- **Inner core**: SS 1.4301
- **Inner layer**: SS 1.4301
- **End caps**: SS 1.4301
- **Bonding material**: Silicone

### Bacterial retention

LRV > 9/cm² for viruses and phages.

### Temperature range

-20°C (-4°F) up to 200°C (392°F).

### Filtration surface

8,400 cm² per 10” element (10/30) (254mm).

### Sterilisation

- In-line sterilisation with slow speed saturated steam:
  - max. 121°C (250°F) for 30 minutes
  - max. 131°C (277°F) for 20 minutes
  - max. 141°C (286°F) for 10 minutes
- Autoclave: 125°C (257°F) for 30 minutes

- PC filter elements are guaranteed for 200 sterilisation cycles without loss of integrity.

### Retention rate

- 99.9999995% related to 0.2μm
- 99.9999995% related to 0.02μm
- 99.99999991% related to 0.003μm

### Max. differential pressure

5 bar (73psi), independent of operating pressure of flow direction.

### Flow rate of a 10” PC element at 8 bar abs

Flow rate is shown in the graph below.

### Dimensions

<table>
<thead>
<tr>
<th>Element size (inch)</th>
<th>A (mm)</th>
<th>B (mm)</th>
<th>C (mm)</th>
<th>D (mm)</th>
<th>Correction factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>03/10</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>04/10</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>04/20</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>05/20</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>05/25</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>07/25</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10/30</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15/30</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20/30</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30/30</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30/50</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Product Code:

- **Type**: Compfil™
- **Element size**: PC
- **Media construction**: Pleated depth
- **Connection**: Plug

### Contact Information

Porvair Filtration Group Inc.
301 Business Lane
Ashland, Virginia 23005, USA
Tel: +1 804 550 1600
Email: infoUS@porvairfiltration.com

Porvair Filtration India PVT. Ltd.
Gangtri Glacier Annex, Kavesar
Opposite Vijay Nagar, Off Ghodbunder Road
Thane (W), 400607, India
Tel: +91 22 25 976464 / +91 22 25 976465
Email: infoIN@porvairfiltration.com

Porvair Filtration Group
Chengdong Area
Square Industrial Park, North District
Xiaogan, 432000, China
Tel: +86 25 5758 1600
Sales: +86 151 0101 2510
+86 189 3686 6188
Email: infoCN@porvairfiltration.com

Porvair Filter Manufacturing Group Ltd.
Queensway
Stem Lane, New Milton,
Hampshire, BH25 5NN, UK
Tel: +44 (0)1425 612010
Email: info@porvairfiltration.com

Porvair is a registered trademark of Porvair plc.
Compfil is a trademark of Porvair plc.
Perbunan is a registered trademark of LANXESS Deutschland GmbH.

© Copyright 2019, Porvair Filtration Group Ltd. All rights reserved.

While every effort has been made to ensure the accuracy of this document, due to continuous product development, the data contained is subject to constant revision and Porvair Filtration Group Ltd. reserves the right to change, alter or modify its contents.