**Ultipor N66**

This inherently hydrophilic membrane forms the basis for Nylon 66 filter cartridges. It produces high removal efficiencies while still achieving excellent flow rate/pressure drop characteristics - features which are a result of the high voids volume and the narrowly controlled pore-size of the membrane structure.

The high durability and flexibility of the basic Nylon 66 membrane also mean that numerous designs can be offered including single layer prefilters, composite and double layer configurations.

Good chemical compatibility, very low extractables - (no additives are used in construction) and long steam life are among the other significant features of these filters.

**N66 Posidyne**

‘Posidyne’ membrane has all the characteristics and inherent performance of ‘Ultipor’ N66, with another important factor, positive zeta potential. The positive charge is functional over a pH range of 3 - 10 in aqueous solutions, and enables Posidyne filters to retain negatively charged contaminants much smaller than the rated pore size.

**Bio-Inert**

‘Bio-Inert’ membrane combines the features of Ultipor N66 with the additional benefit of low protein affinity. This unique hydrophilic membrane filter provides absolute bacteria and particle removal plus minimal protein adsorption, for maximum product yield from dilute solutions.

**Pharmaceutical grade quality**

The 'Pall 'P' grade is an assurance that the following conditions also apply:-

- Every single filter cartridge is integrity tested by the Forward Flow method during manufacture. Results from Forward Flow testing for sterilising grade filters are continually validated against bacterial challenge.

- Each filter is identified with a unique serial number by which every production stage can be traced. Batch traceability is likewise fully ensured.

- Filtrate quality meets required standards for the following parameters:-
  - Oxidisable materials per USP.
  - Bacterial endotoxins per USP.
  - Particulates.
  - pH shift.

- Routine steam autoclave testing of sterilising grades.

- Manufactured according to GMP.

**Materials of construction**

All materials used meet the specification for Biological Safety per USP.

- **Membrane layers**
  - Ultipor N66 - Nylon 66 + polyester support
  - N66 Posidyne - modified Nylon 66 + polyester support
  - Bio-Inert - hydroxyl modified Nylon 66 + polyester support

- **Support and drainage layers**
  - Polyester

- **End-cap/Adaptors**
  - Polyester

- **Internal core**
  - Polypropylene

- **External cage**
  - Polypropylene

- **Elastomeric O-ring seals*”**
  - Silicone as standard
  - Other materials on request

*Applies to Junior cartridges only. ‘Sealkleen’ style cartridges contain an integral flange on the outlet adaptor. Seals supplied with the housing. See Pall publication SD1298.
Technical Information

Maximum differential pressure

<table>
<thead>
<tr>
<th>Temperature</th>
<th>Maximum differential pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Up to 50°C</td>
<td>5.3 bar</td>
</tr>
<tr>
<td>50-80°C</td>
<td>4.0 bar</td>
</tr>
</tbody>
</table>

Sterilisation

Ultrapore N66, N66 Posydyne and Bio-Inert filters can all be sterilised by steam in situ or by steam autoclave. Full details are given in Pall publication SD805 including special procedures for SBF1 filter elements. For ethylene oxide or alternative chemicals and for extended service in hot water please consult Pall.

<table>
<thead>
<tr>
<th>Temperature</th>
<th>Maximum recommended cumulative steam life</th>
</tr>
</thead>
<tbody>
<tr>
<td>125°C</td>
<td>16 hours</td>
</tr>
<tr>
<td>140°C</td>
<td>4 hours</td>
</tr>
</tbody>
</table>

Other technical information and part numbers

<table>
<thead>
<tr>
<th>Cartridge type</th>
<th>Nominal length</th>
<th>Standard available grades</th>
<th>Pharmaceutical grade</th>
<th>Silicone seal</th>
<th>Flow® rate</th>
<th>Multiplying Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>SEALKEEN SLK7002</td>
<td>130 mm</td>
<td>All listed in table below</td>
<td>P</td>
<td></td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>SEALKEEN SLK7001</td>
<td>70 mm</td>
<td>NNXZ</td>
<td>P</td>
<td></td>
<td>0.50</td>
<td></td>
</tr>
<tr>
<td>Junior MCY4440</td>
<td>106 mm</td>
<td>NF, NFX, NRL</td>
<td>P</td>
<td>H4</td>
<td>0.83</td>
<td></td>
</tr>
<tr>
<td>Junior MCY3330</td>
<td>82 mm</td>
<td>NF, NFX, NRL</td>
<td>P</td>
<td></td>
<td>0.44</td>
<td></td>
</tr>
<tr>
<td>Junior MCY2220</td>
<td>57 mm</td>
<td>NF, NFX, NRL</td>
<td>P</td>
<td></td>
<td>0.27</td>
<td></td>
</tr>
<tr>
<td>Junior MCY1110</td>
<td>32 mm</td>
<td>NF, NFX, NRL</td>
<td>P</td>
<td></td>
<td>0.16</td>
<td></td>
</tr>
<tr>
<td>Junior SBF1</td>
<td>51 mm**</td>
<td>NF, NFX, NRL</td>
<td>P</td>
<td></td>
<td>0.08</td>
<td></td>
</tr>
</tbody>
</table>

Example Part Numbers

- SLK 7002 NF P
- SLK7002NF1P
- MCB 2220 NXL P H4
- MCB2220NXLH4
- SBF1 NFZ P H4
- SBF1NFZP14

**To obtain the approximate clean water flow rate for cartridges other than SEALKEEN SLK7002, multiply figures given in the table by the approximate factor.

Fig. Approximate clean water flow rate MCB2220NXLH4 = 1.2 L/min x 0.83 = 1.0 L/min per 100 mbar

**The SBF1 cartridge is dimensionally different from other Junior filter cartridges.

For further information please refer to:

- SD1158 - Pall Nylon range of filters
- STR1029 - Validation Guide for Pall 0.2μm Nylon 66 membrane cartridges
- STR1198, STR1199, STR1210, STR1211, SD1248, SD1265

Other publications relating to Pall Nylon 66 products include:

- SD905, SD906, STR027, STR044, STR1198, STR1199, STR1210, STR1211, SD1248, SD1265

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Because of developments in technology, the data or procedures may be subject to change. (Unintentionally, we advise users to review their continuing relative annually.)

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