FHLP filters are recommended for clarification & prefiltration in:

- Wine
- Beer
- Clear Juices
- Bottled Water
- Liquid Sugars
- Oils

Critical Process provides unrivaled delivery times, technical consulting before purchasing, and very competitively priced high-performance products. Our comprehensive testing & analysis and validation services support your team whenever they need it. Your process experts partnering with our filtration experts is how we deliver your company’s solution right the first time.
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Extractables
FHLP filters typically exhibit low levels of non-volatile residues.

TOC and Conductivity
FHLP filters conform with TOC and water conductivity standards for SEMI Standard F75-1102, with TOC standards of USP <643> and the water conductivity standards of USP <645> after an appropriate flush with purified water.

Non-Fiber Releasing
FHLP filters comply with Title 21 CFR sections 210.3 (b)(6) and 211.72, for non-fiber releasing filters.

FDA and EC Compliance
Materials meet the requirements listed by the FDA as appropriate for use in articles intended for repeated food contact as specified in Title 21 CFR sections 174.5, 177.1500, 177.1520, 177.1630, 177.2440, and 177.2600 as applicable. All materials used to make the filters are listed in European Commission Regulation EU/10/2011, Annex 1.
Flow Rates for FHLP Cartridges by Pore Size

Flow rates for Cartridge filters are per 10-inch length. The test fluid is water at ambient temperature.

Flow Rates for FHLP Capsules by Pore Size

Flow rates for Capsule filters are tested using a 2” capsule filter with 1” sanitary inlet and outlet ports. The test fluid is water at ambient temperature. Flow rates for larger capsules will scale with filtration area. Rates will vary based on end configuration of the capsule.
### Cartridge Filters

<table>
<thead>
<tr>
<th>Pore Size Code</th>
<th>SS Ring</th>
<th>Length</th>
<th>O-Ring/Gasket Code</th>
<th>End Cap Code*</th>
</tr>
</thead>
<tbody>
<tr>
<td>-10 = 0.10 μm</td>
<td>0</td>
<td>05</td>
<td>S = Silicone</td>
<td>0 = Flat Gasket, DOE</td>
</tr>
<tr>
<td>-20 = 0.22 μm</td>
<td>0</td>
<td>97</td>
<td>B = Buna</td>
<td>1 = Flat Gasket/Plug</td>
</tr>
<tr>
<td>-40 = 0.45 μm</td>
<td>0</td>
<td>01</td>
<td>V = Viton (or FKM)</td>
<td>2 = 2-222 O-ring/Plug</td>
</tr>
<tr>
<td>-60 = 0.65 μm</td>
<td>0</td>
<td>19</td>
<td>T = FEP Encapsulated Viton (or FKM)</td>
<td>3 = 213/119 Internal O-ring DOE</td>
</tr>
<tr>
<td>1-0 = 1.0 μm</td>
<td>0</td>
<td>02</td>
<td>E = EP</td>
<td>4 = 213/119 Internal O-ring/Plug</td>
</tr>
<tr>
<td>3-0 = 3.0 μm</td>
<td>0</td>
<td>29</td>
<td>R = FEP Encapsulated Silicone</td>
<td>5 = 2-222 O-ring/Flat</td>
</tr>
<tr>
<td>5-0 = 5.0 μm</td>
<td>0</td>
<td>03</td>
<td></td>
<td>6 = 2-226 O-ring/Flat</td>
</tr>
<tr>
<td>10 = 10 μm</td>
<td>0</td>
<td>04</td>
<td></td>
<td>7 = 020 O-ring/Plug</td>
</tr>
</tbody>
</table>

*Additional End Configurations are available

### Capsule Filters

<table>
<thead>
<tr>
<th>Pore Size Code</th>
<th>Pre-Sterilized or Not</th>
<th>Length</th>
<th>Inlet</th>
<th>Outlet</th>
<th>Side Vent Options</th>
<th>O-Rings</th>
</tr>
</thead>
<tbody>
<tr>
<td>-10 = 0.10 μm</td>
<td>S = Pre-Sterilized</td>
<td>A = 2”</td>
<td>A = 1/4” Female NPT</td>
<td>A = 1/4” Female NPT</td>
<td>1 = Luer Lock</td>
<td>S = Silicone</td>
</tr>
<tr>
<td>-20 = 0.22 μm</td>
<td>G = Gamma Stable</td>
<td>B = 5”</td>
<td>B = 1/4” Male NPT</td>
<td>B = 1/4” Male NPT</td>
<td>2 = Bleed Valve</td>
<td>E = EP</td>
</tr>
<tr>
<td>-40 = 0.45 μm</td>
<td>N = Not Sterilized</td>
<td>1 = 10”</td>
<td>C = 3/8” Female NPT</td>
<td>C = 3/8” Female NPT</td>
<td></td>
<td>V = Viton</td>
</tr>
<tr>
<td>-60 = 0.65 μm</td>
<td></td>
<td>2 = 20”</td>
<td>D = 1/2” Female NPT</td>
<td>D = 1/2” Female NPT</td>
<td></td>
<td>B = Buna</td>
</tr>
<tr>
<td>1-0 = 1.0 μm</td>
<td></td>
<td>3 = 30”</td>
<td>E = 1/2” Male NPT</td>
<td>E = 1/2” Male NPT</td>
<td></td>
<td>K = FFKM</td>
</tr>
<tr>
<td>3-0 = 3.0 μm</td>
<td></td>
<td></td>
<td>F = 1” Sanitary</td>
<td>F = 1” Sanitary</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5-0 = 5.0 μm</td>
<td></td>
<td></td>
<td>G = Hose Barb*</td>
<td>G = Hose Barb*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10 = 10 μm</td>
<td></td>
<td></td>
<td>H = 1 ½” Sanitary with side vent</td>
<td>H = 1 ½” Sanitary with side vent</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Fits hoses/tubes with inner diameter 11/32 to 9/16 inches

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Data Sheet FHLPDS Rev B

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**Critical Process Filtration**

One Chestnut Street
Nashua, NH 03060
603.880.4420
FAX: 603.880.4536
CriticalProcess.com