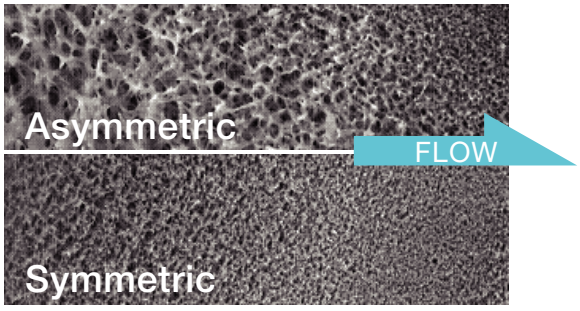
# BevPure® XL Filter Cartridges

Extended Service Life through Asymmetric PES Membrane · Sterilizing Grade

**BevPure® XL** Filter Cartridges have a unique membrane arrangement of single-layer asymmetric hydrophilic PES membrane. Characteristics include excellent throughput, high dirt holding capacity and durability. The extremely high flow rates in comparison to other sterilizing grade filter media can significantly reduce filtration costs.



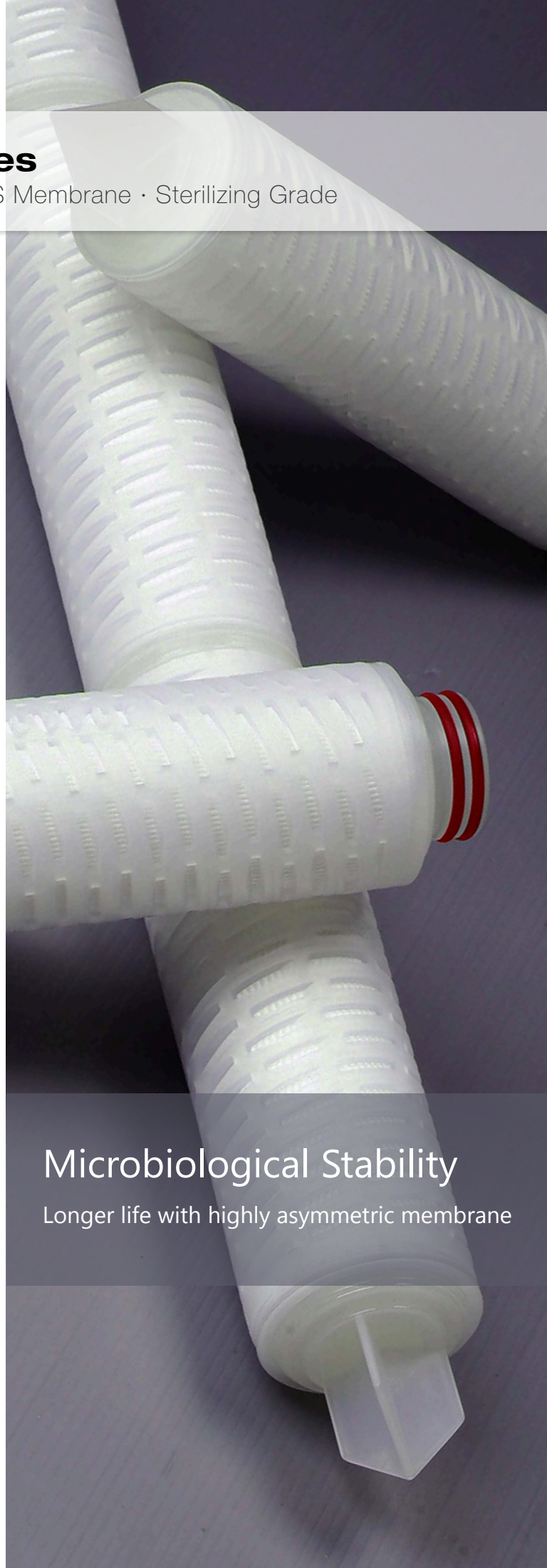



## Features and Benefits

- Highly asymmetric PES membrane provides high dirt holding capacity for longer service life
- Each filter is individually Integrity Tested prior to factory dispatch
- Available in ratings from 0.1µm to 1.2µm for precise bacteria and particle removal
- Complies with Food Contact Regulations: FDA 21CFR177-182 and 1935/2004 EC

## Materials of Construction

| | |
|---|---|
| **Filter Media** | Asymmetric PES Membrane |
| **Cage/Support** | Polypropylene |
| **Core/End Caps** | Polypropylene |



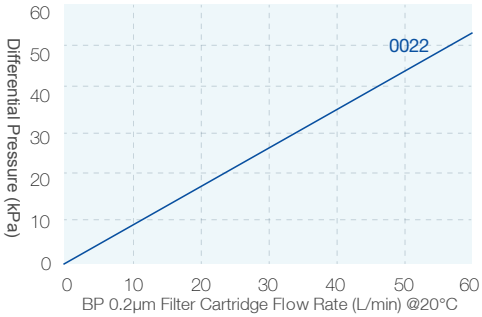
## Microbiological Stability

Longer life with highly asymmetric membrane

## Operating Conditions

| | |
|---|---|
| **Max. Temperature** | 80°C |
| **Max. Differential Pressure** | 4.0 bar / 21°C (forward flow) |
| | 2.4 bar / 70°C (forward flow) |
| **Bubble Point** | BP: >0.34 MPa (water), 0.22 μm |
| | BP: > 0.22 MPa(water), 0.45 μm |
| **Diffusion Flow** | DF: < 30 ml/min/10"@0.25Mpa(water), 0.22μm |
| | DF: < 28 ml/min/10"@0.16Mpa(water), 0.45 μm |
| **Steam Sterilization** (Saturated Steam) | ≥100 cycles (121°C/30 min @ Max. Differential Pressure for 0.3 bar) |
| **Hot Water Sterilization** | 85°C/30 min @Max. Differential Pressure for 2 bar |
| **Cleaning Solution** | 2% NaOH Solution @ ≤65°C |
| **Effective Filtration Area** | 0.58m² / Φ69-10 inch |

## Flow Rate Characteristics




| Flow Rate (LPM) | 10 | 20 | 30 | 40 | 50 | 60 |
|---|---|---|---|---|---|---|
| Differential Pressure (kPa) | 9.2 | 18.5 | 27.7 | 37.0 | 46.2 | 55.5 |

## Raliable Microbiological Control

The primary purpose of a membrane filter cartridge in beverage processing is to effectively control spoilage microorganisms.

| Typical Log Reduction Value (LRV) | | | |
|---|---|---|---|
| | **B.***diminuta* | **Lactobaccilus Brevis** | **Sasharomyces Cerevisiae** |
| 0.1μm | >7/cm² | N/A | N/A |
| 0.2μm | >7/cm² | N/A | N/A |
| 0.45μm | N/A | >7/cm² | >7/cm² |
| 0.65μm | N/A | >4/cm² | >7/cm² |
| 1.2μm | N/A | N/A | >7/cm² |

Log Reduction Values are calculated using the following formula: $LRV = \log_{10}\left(\frac{\text{total number of organisms entering the filter}}{\text{total number of organisms exiting the filter}}\right)$

## Ordering Information

| **BPXL** | -R | Removal Ratings | End Cap | Nominal Length | Seal Material | **-F** |
|---|---|---|---|---|---|---|
| [Φ69] | **Blank** | **0010** =0.1 μm | **DOE** =Double Open End | **05** = 5" | **S** =Slilicone | |
| | | **0022** =0.22 μm | **HTC** =222 O-ring/Flat (PBT Insert) | **10** =10" | **E** =EPDM | |
| | | **0045** =0.45 μm | **HTF** =222 O-ring/Fin (PBT Insert) | **20** =20" | **V** =Viton | |
| | | **0065** =0.65 μm | **HSF** =226 O-ring/Fin (PBT Insert) | **30** =30" | | |
| | | **0080** =0.8 μm | **SSF** =226 O-ring/Fin (SS Insert) | **40** =40" | | |
| | | **0120** =1.2 μm | **SSC** =226 O-ring/Flat (SS Insert) | | | |
| | | | **STF** =222 O-ring/Fin (SS Insert, 3 Tabs) | | | |