



## **PolyPropylene (PP) High Efficiency Specs.**

- Manufactured in Class 100,000 cleanroom.
- Support, core, and end caps are PP
- NSF certified pleated PP media
- Orings silicone
- Sealing by Thermal bonding, no adhesive
- Filter area, 10" cartridge, 0.6 m<sup>2</sup>
- Maximum Forward differential pressure 60 psid @73°F, 22 psid @ 185°F for water.
- Maximum Forward differential pressure 30 psid @73°F for beer, wine, and other products with suspended particles
- Maximum Reverse differential pressure 30 psid @140°F with pure water (cleaning)
- pH 1-14
- Maximum working temperature 140° F
- May be hot water sanitized for 30 cycles using purified water at 185° F for 30 minutes.
- Bacterial endotoxins <0.25 EU/ml as determined by the LAL test.
- Liquid Use : Beer, wine, liquor and other alcoholic drinks. Mineral water and purified water. Security filtration for reverse osmosis.



## **Activated Carbon ACF Specs**

- Same as PP, and
- Iodine Adsorption Value 900mg/g
- Nominal 5 micron filter



## **PolyEtherSulfone (PES) and PES-Plus-PP specs**

- Each and every filter is integrity tested, either bubble point or diffusion test.
- Manufactured in Class 100,000 cleanroom.
- Support, core, and end caps are PP
- Integrity tested
- Each filter flushed with pure water
- Media of PES. Pleated asymmetric and hydrophilic PES
- Media of PES+PP. A layer of polypropylene depth filter combined with a layer of modified polyethersulfone hydrophilic membrane in a pleated configuration.
- Orings silicone
- Sealing by Thermal bonding, no adhesives
- Filter area, 10" cartridge, 0.63 m<sup>2</sup>
- Maximum Forward differential pressure 60 psid @73°F, 15 psid @ 185°F for water.
- Maximum Forward differential pressure 30 psid @73°F for beer, wine, and other products with suspended particles
- Flow rate and pressure drop per 10" cartridge, >6.6 GPM at 3 psi
- Do not reverse flow

- PES-.45 Bubble point  $\geq 24$  psi, water 25° C. Flush for 15 minutes at 45 L/min for 30" cartridge (15 L/min for 10") with pure water to remove air.
- PES-.65 Bubble point  $\geq 18$  psi, water 25° C. Flush for 15 minutes at 45 L/min for 30" cartridge (15 L/min for 10") with pure water to remove air.
- PES+PP Bubble point is the same. However, it is very difficult to properly wet with water because PP layer is hydrophobic. It can be done easily with 95% ethanol, but we do not recommend this due to safety risk.
- pH 1-13
- Maximum working temperature of PES is 140°F
- Maximum working temperature of PES+PP is 176° F (PES+PP has extra stainless steel layer)
- May be hot water sanitized for 30 cycles using purified water at 185° F for 30 minutes.
- Filter cartridge integrity was maintained after continuous 20 steam-in-place cycles of 30 minutes at 127°C or 30 autoclave cycles of 30 minutes at 123°C.
- Bacterial endotoxins  $< 0.25$  EU/ml as determined by the LAL test.
- Liquid Use : Beer, wine, liquor and other alcoholic drinks. Mineral water and purified water. Security filtration for reverse osmosis