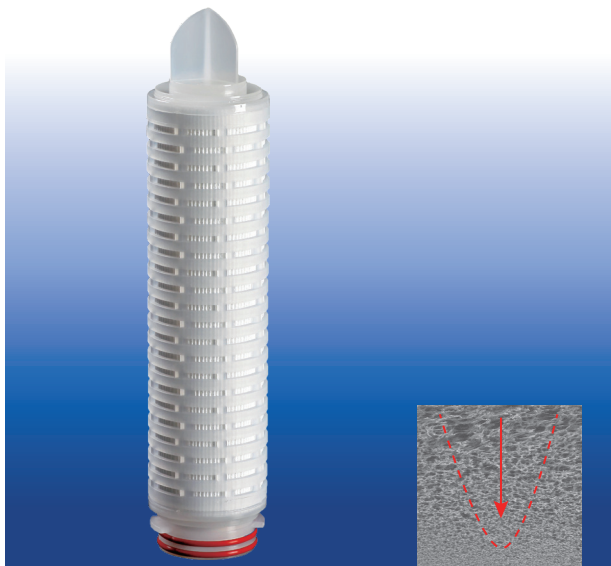




PAE series polyethersulfone (PES) pleated filter cartridges are made of hydrophilic highly asymmetric membrane. Its homogeneous membrane layer along with continuously graded pore structure enable PAE to filter various sizes of microorganisms and particulate impurities, the thermally welded process makes this product have minimum extractables in wide range of fluids and applications.

PAE are suitable for sterile-grade liquid filtration in the pharmaceutical industry, it provides reliable bacterial retention ability, has broad chemical compatibility, shows characteristics of high flow rate, large throughput, extraordinary dirt holding capacity and long service life, which can meet multiple requirements of product efficiency, quality and economics. All components of PAE comply with FDA regulations.

## Features

- Highly asymmetric membrane and large dirt holding capacity
- Wide chemical compatibility and low protein adsorption
- High porosity and low pressure drop
- High flow rate, large throughput and long service life
- Allow multiple SIP or Autoclave cycles

## Applications

- Biological products sterilization filtration
- Cell culture medium and buffer sterilization filtration
- Additives, intermediates and final solution sterilization filtration
- LVP, SVP and eye drops sterilization filtration
- Antibiotic aqueous and lyophilized preparations sterilization filtration
- Cleaning and disinfection solutions sterilization filtration

## Material of Constructions

|                       |                       |
|-----------------------|-----------------------|
| Media                 | Hydrophilic PES       |
| Support Layer         | PP                    |
| Cage/Core/End Cap     | PP                    |
| Connection Adaptor    | SS Insert, PSU Insert |
| Seal Material Options | Silicone, EPDM, FKM   |

## Dimension

|          |                        |
|----------|------------------------|
| Diameter | 69mm                   |
| Length   | 5", 10", 20", 30", 40" |

## Performance

### Operating Conditions (with SS Core)

|                            |                                                                  |
|----------------------------|------------------------------------------------------------------|
| Max. Operating Temperature | 80°C (176 psi)                                                   |
| Max. Operating DP          | 4 bar (58 psi) @ 20°C (68 °F),<br>2 bar (29 psi) @ 176°C (68 °F) |

### Sterilization (with SS core)

|                         |                                       |
|-------------------------|---------------------------------------|
| Autoclave Sterilization | 125°C (257 °F), 30 minutes, 30 cycles |
| SIP                     | 125°C (257 °F), 30 minutes, 30 cycles |

### Bacteria Retention

0.22µm Validated with *Brevundimonas diminuta* at 10<sup>7</sup>CFU/cm<sup>2</sup>

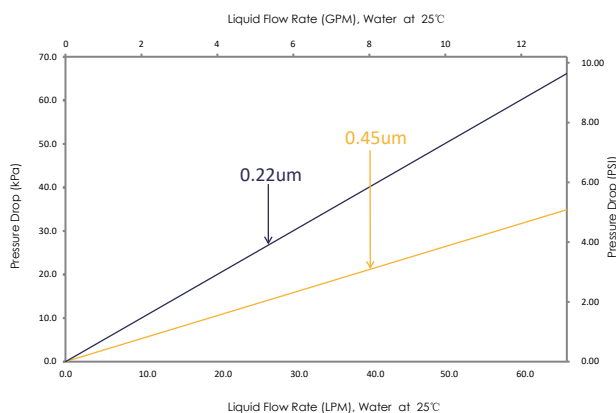
### Filtration Area

0.65 m<sup>2</sup> / 10" Filter Cartridge

### Extractables

10" Filter Cartridges < 20mg

### PAE Flow Rate Per 10"



## Quality

- Each membrane filter cartridge has been individually tested for integrity
- Individual filter cartridge is tracked by serial number
- Manufactured according to ISO 9001:2015 certified quality management system
- Manufactured in a clean room environment

## Integrity Test

| Remove Rating | Bubble Point <sub>2</sub><br>(Water) | Diffusion Flow <sub>Δ</sub><br>(10"Ø69mm) |
|---------------|--------------------------------------|-------------------------------------------|
| 0.22μm        | 3200mbar                             | 25ml/min@2760mbar                         |
| 0.45μm        | 2100mbar                             | 25ml/min@1700mbar                         |

## Ordering Information

|               |                             |          |               |        |   |
|---------------|-----------------------------|----------|---------------|--------|---|
| PAE           | 0022                        | J        | 5             | S      | P |
| Remove rating | End Cap Type                | Length   | Seal Material | Core   |   |
| 0010 = 0.1μm  | K = 222 (SS Insert) / Fin   | 5 = 5"   | S = Silicone  | P = PP |   |
| 0022 = 0.22μm | R = 226 (SS Insert) / Fin   | 10 = 10" | E = EPDM      | S = SS |   |
| 0045 = 0.45μm | V = 226 (SS Insert) / Flat  | 20 = 20" | V = FKM       |        |   |
| 0065 = 0.65μm | J = 222 (SS Insert) / Flat  | 30 = 30" |               |        |   |
| 0120 = 1.2μm  | G = 226 (PSU Insert) / Fin  | 40 = 40" |               |        |   |
|               | I = 226 (PSU Insert) / Flat |          |               |        |   |

DISCLAIMER: Filtration data presented is representative of performance observed in controlled laboratory testing. It is not given as a warranty, specification or statement of fitness for use. Specific performance can vary widely depending on contaminant type, fluid properties, flow rates and environmental conditions. It is recommended that users conduct thorough qualification testing to assure the product functions as required.

