

Polyfil™ II

Absolute Rated Pleated Polypropylene Cartridge Filters



A range of absolute rated cartridge filters are created, featuring the latest developments in meltblown polypropylene filter media technology. Polyfil™ II cartridges are based on a robust all polypropylene construction, offering removal ratings from 0.5 to 150 micron absolute.

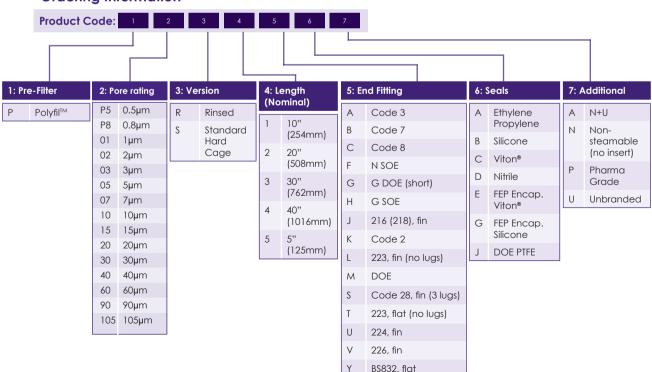
PolyfilTM II cartridges are suitable for absolute removal of unwanted particulates and for pre-filtration to membrane filters. The graded multi-layer polypropylene media provide pre-filtration of the process fluid prior to the absolute rated final layer. The unique design of the PolyfilTM II cartridges helps to achieve lower running costs and a smaller process footprint.

PolyfilTM II filters are also highly resistant to integrity failure caused by steam sterilisation and have excellent chemical compatibility characteristics.

Typical Applications

- Pharmaceuticals and bio-processing
- Foods and beverages
- Inks and coatings
- Fine chemicals
- CosmeticsProcess water systems

Ordering Information



Features and Benefits

- · Graded multi-layer media
- High filtration area
- · Guaranteed removal ratings
- Suitable for steam and hot water sanitisation
- Full traceability
- Controlled manufacturing environment

Specifications

Materials of Manufacture

Filter media: Polypropylene
Support layers: Polypropylene
Inner core: Polypropylene
Outer support: Polypropylene
End fittings: Polypropylene
Support ring: Stainless steel

Cartridge Dimensions (Nominal)

Effective Filtration Area:

Up to 0.6m² per 10" module (depending on pore rating).

Diameter: 70mm (2.8")

Length: 1 module (short): 125mm (5")

1 module: 254mm (10"),

508mm (20")

2 modules: 762mm (30"),

1016mm (40")

Cartridge Treatment

Standard: Cleaned without further treatment Flushed: Flushed with pyrogen-free water

Rinsed: Ultra-clean, pulse flushed to give a system

resistivity of $18M\Omega.cm$

Gaskets and O-Rings

Ethylene Propylene, FEP encapsulated, Silicone, Viton®, Nitrile or Polypropylene felt

Maximum Differential Pressure

Normal flow direction at:

 20°C (68°F):
 6.0 bar (87psi)

 80°C (176°F):
 4.0 bar (58psi)

 100°C (212°F):
 3.0 bar (44psi)

 120°C (248°F):
 2.0 bar (29psi)

 125°C (257°F):
 1.5 bar (22psi)

Reverse flow direction at:

 20°C (68°F):
 2.1 bar (30lb/in²)

 80°C (176°F):
 1.0 bar (15lb/in²)

 100°C (212°F):
 0.5 bar (7lb/in²)

Operating Temperature

Maximum continuous: 80°C (176°F)

Sterilisation

In situ steam 80 x 30 minute cycles at 135°C (275°F) Hot water 200 x 20 minute cycles at 85-90°C (185-194°F)

Extractables

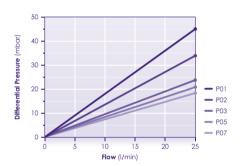
Minimum total extractables. Please refer to the $Polyfil^{TM}$ II Validation Guide.

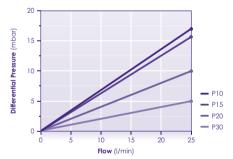
Integrity Testing

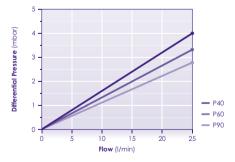
PolyfilTM II filter cartridges are batch tested for integrity using the Bubble Point Test. Please contact us for procedural details.

Clean Water Flow Rates

- Typical clean water flow rate:
 A 254mm (10") Polyfil™ II single cartridge exhibits the flow-∆P characteristics indicated below, for solutions with a viscosity of 1 centipoise.
- Other solutions:
 For solutions with a viscosity of greater than
 1 centipoise, multiply the indicated differential pressure by the viscosity in centipoise.







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