

# Microcap™ **PPP**

Pharmaceutical Grade Pleated Polypropylene Capsules



Microcap™ PPP capsules are used for the prefiltration of bulk pharmaceutical chemicals, water, buffers, solvents, alcohols and other liquids. They are also designed to protect membrane filters in filling applications for SVPs, LVPs, diagnostics, ophthalmics, biologicals and other products.

Made with polypropylene microfibre media, and designed with the optimal filtration area, these filters remove large amounts of particulate and other contaminants.

Microcap™ PPP capsules protect critical membrane filters downstream by removing 99.9% (B ratio = 1000) of contaminants at the rated pore size.

Polypropylene exhibits broad chemical compatibility, so it is particularly suited for the filtration of chemicals and solvents used in the drug making processes.

Microcap™ PPP capsules are integrity tested during manufacture and are flushed to ensure cleanliness in critical process applications.

# **Typical Applications**

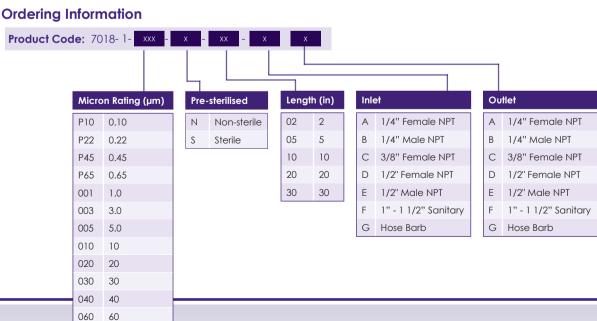
- · Bulk pharmaceutical chemicals
- Buffers and other media
- LVPs and SVPs
- **Biologicals**
- Water
- **Ophthalmics**
- Diagnostics

## Features and Benefits

- Protect's critical membrane filters downstream.
- Wide range of high efficiency retention ratings
- High capacity for long life.
- USP Class VI approved.
- · Uses FDA compliant materials.

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# **Specifications**

# **Materials of Manufacture**

Housing: Polypropylene

Filtration media: Pleated polypropylene

depth media

Media support:
End caps:
Polypropylene
Centre core:
Polypropylene
Outer support cage:
Polypropylene
Sealing method:
Thermal bonding

Sanitisation/Sterilisation

Autoclave: 121°C (250°F), 30 min, 5+

cycles

Chemical sanitisation: Industry standard

concentrations of hydrogen peroxide, peracetic acid, sodium hypochlorite and other selected

chemicals.

Note: Microcap<sup>TM</sup> PPP capsules

are not designed for steam-in-place (SIP).

## Flow Rate

The following table represents typical water flow at a one psi (69mbar) pressure differential across a single 2 inch capsule with 1.1 ft² (0.10 m²) of media with 1" sanitary ports. The liquid test fluid is water at ambient temperature. Higher pressure drops are acceptable, but as flows increase the pressure drop of the housing becomes more apparent.

# **Maximum Operating Parameters**

Liquid operational pressure: 5.5bar (80psi) at 20°C

(68°F)

Gases operational pressure: 60psi (4.1bar) at 20°C

(68°F)

Operating temperature: 43°C (110°F) at 2.1bar

(30psi) in water

Reverse differential pressure: 2.7bar (40psi) at 20°C

(68°F)

Recommended changeout

pressure: 2.4bar (35psi)

### Filtration Area

Media	Capsule length							
	2"	5"	10"	20"	30"			
Pleated polypropylene depth	1.1ft <sup>2</sup> (0.10m <sup>2</sup> )	2.9ft <sup>2</sup> (0.27m <sup>2</sup> )	6.24ft² (0.58m²)	12.48ft <sup>2</sup> (1.16m <sup>2</sup> )	18.72ft² (1.74m²)			

Average – Filtration area varies with media thickness and porosity.

Pore size (µm)	0.10	0.22	0.45	0.65	1.0	3.0	5.0	10	20	30	40	60	100
GPM	0.15	0.39	0.54	0.69	0.92	1.0	1.1	1.3	1.7	>1.7	>1.7	>1.7	>1.7
LPM	0.57	1.5	2.0	2.6	3.5	3.8	4.2	4.9	6.4	>6.4	>6.4	>6.4	>6.4

PFG773/Rev4:Nov24