

# Microcap™ GPP

## General Pleated Depth Polypropylene Capsule Filters



**Microcap™ GPP general service grade capsules are used for the removal of particulate contaminants from water, inks, dyes and speciality chemicals.**

Made with polypropylene microfibre media and designed with the maximum filtration area, these filters can remove large amounts of particulate and other contaminants over a long filter life. Microcap™ GPP capsules protect critical membrane filters downstream by removing large amounts of particulates and other contaminants.

Polypropylene depth media filters perform the critical upstream clarification of products. When used in final filtration systems, the filters protect the high-value membrane filters used downstream. Polypropylene depth media capsule filters are rinsed during production to remove manufacturing debris from the capsules.

### Typical Applications

- Chemicals
- Acids and bases
- Cosmetics
- Process water
- Inks and dyes
- Air and gases

### Features and Benefits

- Protect critical membrane filters downstream.
- Wide range of high efficiency retention ratings.
- High capacity for long life.
- Non-fibre releasing.
- Uses FDA compliant materials.

### Ordering Information

**Product Code:** 7018- 2 - xxx - x - xx - x - x

Micron Rating (µm)		Pre-sterilised	Length (in)		Inlet	Outlet
P10	0.10	N Non-sterile	02	2	A 1/4" Female NPT	A 1/4" Female NPT
P22	0.22		05	5	B 1/4" Male NPT	B 1/4" Male NPT
P45	0.45		10	10	C 3/8" Female NPT	C 3/8" Female NPT
P65	0.65		20	20	D 1/2" Female NPT	D 1/2" Female NPT
001	1.0		30	30	E 1/2" Male NPT	E 1/2" Male NPT
003	3.0				F 1" - 1 1/2" Sanitary	F 1" - 1 1/2" Sanitary
005	5.0				G Hose Barb	G Hose Barb
010	10					
020	20					
030	30					
040	40					
060	60					
100	100					

## Specifications

### Materials of Manufacture

Housing:	Polypropylene
Filtration media:	Pleated polypropylene depth media
Media support:	Polypropylene
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™ GPP capsules are not to be used in steam.

### 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.

Pore size (µm)	0.10	0.22	0.45	0.65	1.0	3.0	5.0	10	20	30	40	60	100
GPM	0.23	0.38	0.62	0.77	0.92	0.95	1.1	1.3	1.7	1.9	2.7	3.1	3.8
LPM	0.87	1.4	2.3	2.9	3.5	3.6	4.2	4.9	6.4	7.2	10.2	11.7	14.4

### Maximum Operating Parameters

Liquid operational pressure:	5.5bar (80psi) at 20°C (68°F)
Gases operational pressure:	4.1bar (60psi) at 20°C (68°F)
Operating temperature:	43°C (110°F) at 2.1bar (30psi) in water
Reverse differential pressure:	3.4bar (50psi) at 20°C (68°F)
Recommended changeout pressure:	2.4bar (35psi)

### Filtration Area

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

Average – Filtration area varies with media thickness and porosity.