

# Ultrapolyplea P-PP100

The depth filter for particle removal from aqueous solutions, water and gases with an absolute retention rate.

## Product description:

The Ultrapolyplea depth filter is a pleated all-polypropylene prefilter with an absolute retention rate between 0.45 µm and 40 µm.

## Features:

All components meet the FDA requirements for the contact with food in accordance with CFR (Code of Federal Regulations) Title 21.

Ultrapolyplea has passed the USP XX Class VI tests for plastics. The filter element is manufactured in accordance with the cGMP requirements (current Good Manufacturer Practice), has no migration of filter media, is non-fiber releasing and is thermally welded without the use of binders or other chemical additives.

The filter element is pre-rinsed with 18 Mohm · cm water. This leads to extremely low extractables.

The Ultrapolyplea P-PP100 –  
high efficient absolute  
pre- and after filter

SEM of the  
Ultrapolyplea depth filter



## Applications:

The Ultrapolyplea depth filter is designed and developed for the following applications:

- Particle removal from water
- Chemicals
- Solvents
- Etchants
- Biological liquids
- Pharmaceuticals
- Serums
- Isotonic salt solutions
- Food and beverage
- Syrup
- Cosmetics
- Paints and dyes
- Inks and pigments
- Jet printer inks
- Photolithographical liquids
- Coatings
- Salt- and Seawater
- Coolants
- Compressed air and other gases

## Ultrapolyplea P-PP100

Features:	Benefits:
All-polypropylene construction	Wide chemical durability against numerous gases and liquids
Absolute particle removal from 0.45 µm up to 40 µm.	Precise particle retention at rated level, greater selection of optimum filter media
Tapered pore structure	Higher dirt holding capacity, larger throughputs, longer service life
Contains no binders or adhesives	Wide solvent compatibility, extremely low extractables, immediately rinses to 18 Mohms · cm
Self-bonded filter media	Fixed pore structure, high containment of solid materials, no migration of filter media, non-fiber releasing
Maximum effective surface area	Reduced pressure loss, high flow rates
Biologically inert and non-toxic	Meets FDA requirements for food contact, passed USP Class VI biological tests for plastics

Filtration surface:
0.5 m <sup>2</sup> per 10" element (250 mm)

Sterilization
In-Line sterilization with slow speed saturated steam 121°C– 135°C for 30–60 minutes Autoclave: 121°C–125°C for 30–60 minutes
Ultrapolyplea filter elements are capable of repeated sterilization cycles

Maximum differential pressure:	
Operating temperature	Differential pressure
[°C]	[bar]
35	5,5
65	4,0
80	2,0

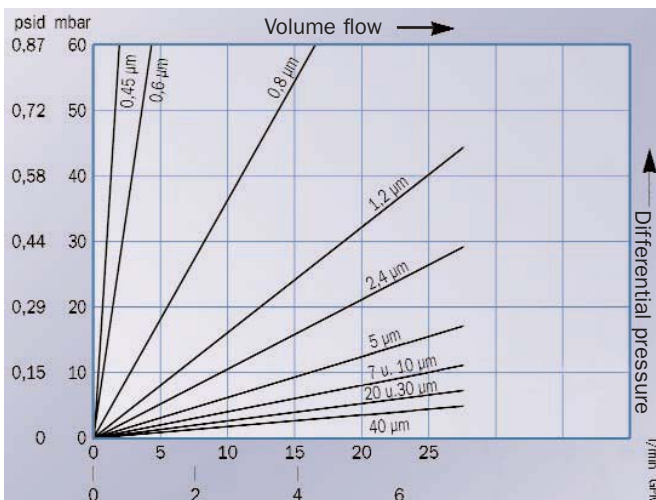
Materials:	
Filter media:	Polypropylene
Upstream support:	Polypropylene
Downstream support:	Polypropylene
Outer guard:	Polypropylene
Endcaps:	Polypropylene
O-Rings:	Silicone, Buna N, EPDM or Viton

	Particle retention [µm]:		
	Percent removal		
	<b>100%</b>	<b>99%</b>	<b>90%</b>
0.45	0.45	0.40	< 0.30
0.6	0.60	0.56	0.38
0.8	0.80	0.72	0.50
1.2	1.20	1.10	0.70
2.4	2.40	2.30	2.00
5	5.00	4.50	3.00
7	7.00	6.50	5.00
10	10.00	9.50	7.50
20	20.00	19.00	12.00
30	30.00	26.00	16.00
40	40.00	35.00	28.00

Dimensions:	
Diameter:	70 mm (2¾")
Length:	5", 10", 20", 30" oder 40"; 125 mm, 250 mm, 500 mm, 750 mm oder 1000 mm (nominal)

Absolute retention rates:
0,45 µm, 0,6 µm, 0,8 µm, 1,2 µm, 2,4 µm, 5 µm, 7 µm, 10 µm, 20 µm, 30 µm, 40 µm

Flow rate of a 10" P-PP 100 element – water (1 bar, 20°C)



Flow rate of a 10" P-PP 100 element – air (1 bar, 20°C)

