

ultrapolymem® P-PF-PP

The membrane for the filtration of solvents, alcohols, chemicals and gases.

Product description:

The ultrapolymem® filter is a pleated polypropylene membrane filter, constructed of 100% pure polypropylene. It provides maximum durability against chemicals in critical processes. The filter media, polypropylene, is inherently hydrophobic, with a highly porous membrane structure. Therefore, a consistently high porosity and particle removal is guaranteed throughout its entire service life. For this reason the filter is especially suitable for the filtration of compressed gases, fermentation of gases, technical gases, tank ventilation and for solvents. ultrapolymem® offers a cost effective alternative to a PTFE membrane with similar performance and durability range against chemicals.

Features:

All components fulfil the FDA requirements for the contact with food in accordance with CFR (Code of Federal Regulations) Title 21. ultrapolymem® filter elements have passed the toxicological tests according to USP XX Class VI for plastics. In particular, the requirements of the chemical, biological, cosmetic, electronic and the pharmaceutical industries are fulfilled. The membrane is manufactured in accordance with the cGMP requirements (current Good Manufacturer Practice), is non-fibre releasing and is thermally welded without the use of binders or other chemical additives.

Applications:

The ultrapolymem® membrane is designed and developed for the following applications:

- Acids
- Bases
- Alcohols
- Solvents
- Etchants
- Photoresists
- Photolithographical solutions

For the filtration of aqueous solutions, the ultrapolymem® membrane must be mixed with a liquid of lower surface tension e.g. IPA. Due to the inherently hydrophobic filter media, the ultrapolymem® membrane is also suitable for the filtration of gases in such as:

- Compressed air
- CO₂
- Fermentation gases
- Technical gases
- Tank ventilation

Absolute retention rates:

0.04 µm, 0.1 µm, 0.2 µm

Bacterial retention:

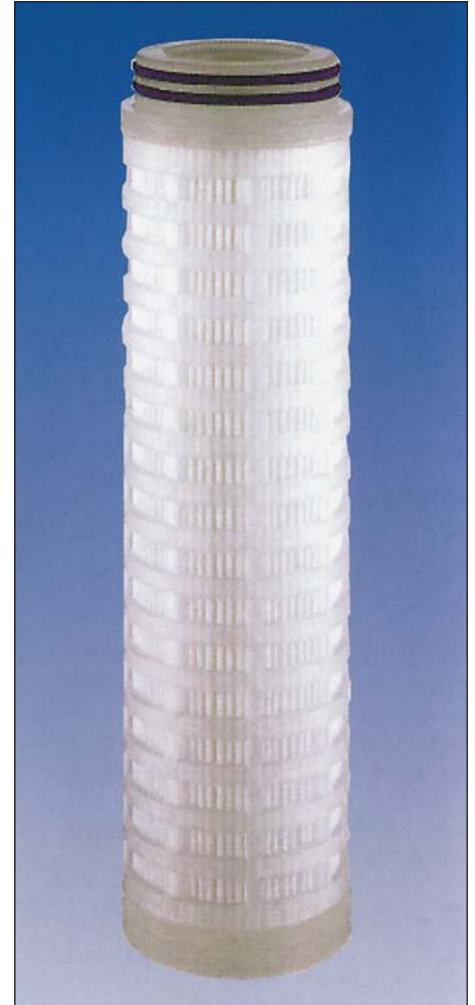
HIMA challenge per ASTM

0.2 µm Pseudomonas diminuta

Integrity testing

(wetting agent Isopropylalcohol [IPA]):

Pore size	Bubble point
0.04 µm	≥ 1.8 bar, 26 psi
0.1 µm	≥ 1.5 bar, 22 psi
0.2 µm	≥ 0.6 bar, 9 psi



The ultrabeve® P-PF-BEV – for sterile filtration and bacteria reduction of liquids with the lowest possible differential pressure

Sterilisation:

- In-line sterilisation with slow speed saturated steam 121°C–135°C (250°F–275°F) for 30–60 minutes
- Autoclave 125°C (260°F) for 30 minutes
ultrapolymem® filter elements are capable of repeated sterilisation cycles – without loss of integrity