

PES ABSOLUTE RATED FILTER CARTRIDGES

Cold biological stabilization in food/beverage industry.

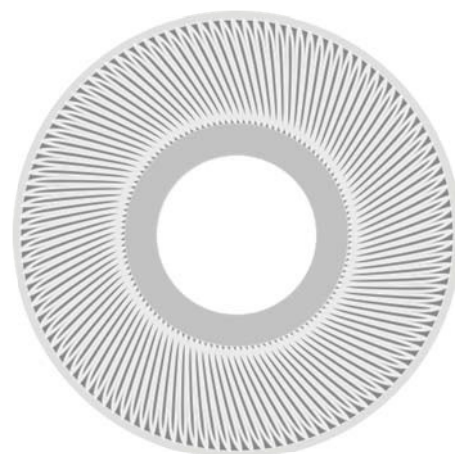
ABSO

Sterile filtration that maintains the process fluid properties intact

ABSO[®] absolute rated cartridges confirm Ionex as the benchmark brand in sterile filtration for cold biological stabilization. The membrane is made from a homogenous layer of graded porosity polyethersulphone, ensuring microbiological security.

The membrane is inherently hydrophilic, and therefore does not need to be treated with chemical wetting agents. The filtration area has been significantly increased in comparison to the industry standard by an innovative 'veil' pleating method that optimizes the position of the membrane in the cage. The ABSO[®] cartridge's outstanding mechanical resilience is not solely due to the use of an extremely robust asymmetric PES membrane, but also thanks to a structure that compensates for expansion and shrinkage caused by temperature changes, especially during vaporisation. This means that the cartridge can be subjected to numerous filtration and sterilisation cycles in complete safety with undiminished filtration capacity.

All elements are manufactured in a clean room and are tested individually to verify integrity before packaging.



> ABSOPH

Optimized pleating system

TECHNICAL SPECIFICATIONS

- 100% inherently hydrophilic, contains no adhesives, surfactants or wetting agents
- absolute retention ratings, high margins of operational safety
- excellent dirt holding characteristics, low Δp values
- biologically inert membrane, non-fiber releasing; no color or odor adsorption or release
- reduced binding effect on proteins
- tested individually for integrity prior to packing
- all materials meet the requirements of FDA CFR Title 21 for food contact
- in compliance with EC Directive for food contact. Regulation (EU) No.10/2011+amendments;1935/2004-1895/2005

OPERATING CONDITIONS

Max operating pressure (Δp)	80°C @ 1.0 bar 20°C @ 5.0 bar
Recommended replacement pressure drop	2.0 bar @20°C
Suggested operating pressure range	0.1 to 1.0 bar

PORE SIZE RATING & TYPICAL DATA

0.2 μm - 0.45 μm – 0.65 μm – 0.85 μm – 1.0 μm

Retention Efficiency - 350l/h/10"	Microbial Titer Reduction (T_R) ASTM F 838-05
>99.99% [Serratia Marcescens]	$T_R > 10^7$ (<1CFU) // 0.2 μm
>99.99% [Saccharomyces Cerevisiae]	$T_R > 10^7$ (<1CFU) // 0.45 μm
>99.99% [Saccharomyces Cerevisiae]	$T_R > 10^7$ (<1CFU) // 0.65 μm
>99.99% [Saccharomyces Cerevisiae]	$T_R > 10^6$ (<1CFU) // 0.85 μm
>99.99% [Saccharomyces Cerevisiae]	$T_R > 10^5$ (<1CFU) // 1.0 μm

FLOW RATE

Water Flow 20°C@0.1 bar/10"	0.2 μm	0.45 μm	0.65 μm	0.85 μm	1.0 μm
Typical Flow Rate	18 L/min	27 L/min	33 L/min	40 L/min	48L/min

Extrapolation for multiple housings and higher pressure drops is acceptable, but as flows increase the pressure drop of the housing becomes more apparent

FILTRATION AREA

0.6m²/10"

MATERIALS OF CONSTRUCTION

Filtering media	PES asymmetric membrane
Supports	Polypropylene
Inner sleeve	Polypropylene + ss316 insert
Connections and tip	Polypropylene
Gaskets	Silicone (standard), EPDM, Viton, FEP

DIMENSION

Length	254mm (10")-508mm (20")-762mm (30")-1016mm (40")
Outer diameter	69mm
Inner diameter	26mm

TRACEABILITY

Each filter element is identified by a lot number for complete traceability.