

# ABSOLUTE RATED FILTER CARTRIDGES

Mirrored asymmetric structure  
Pre-flushed with DI non pyrogenic water  
Individually integrity tested before packing

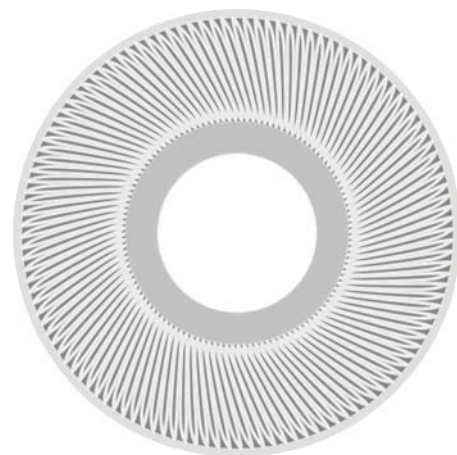
## ABSOLUTE PH

### PES membrane for bio-reduction performance and submicron particle removal

ABSOLUTE® absolute rated cartridges confirm Ionex as the benchmark brand in critical sterile filtration. The membrane is made from a mirrored asymmetric polyethersulphone, ensuring microbiological security. The membrane is inherently hydrophilic, and therefore does not need to be treated with chemical wetting agents. The distinguishing characteristics of ABSOLUTE® PH elements are: excellent membrane performance repeatedly from batch to batch, high effective filtration area, operational stability, unvarying performance over time and verifiable efficiency through integrity tests.

The use of thermo-bonding and ultrasound bonding processes in assembly without the use of resins or adhesives reduces the level of extractables to a minimum and makes the whole component compact and resilient.

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



**> ABSOLUTE PH**  
Optimized pleating system

## TECHNICAL SPECIFICATIONS

- 100% inherently hydrophilic, contains no adhesives, surfactants or wetting agents
- absolute retention ratings, high margins of operational safety
- biologically inert membrane, non-fiber releasing; no color or odor adsorption or release
- pre-flushed with DI non pyrogenic water (<0.25 EU/ml)
- Manufactured in clean room
- 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
- tested individually for integrity prior to packing

## OPERATING CONDITIONS

<b>Max operating pressure (<math>\Delta p</math>)</b>	80°C @ 1.0 bar 20°C @ 5.0 bar
<b>Recommended replacement pressure drop</b>	2.0 bar @20°C
<b>Suggested operating pressure range</b>	0.1 to 1.0 bar

## PORE SIZE RATING & TYPICAL DATA

0.1um – 0.2um – 0.45um

<b>Membrane Retention Efficiency</b>	<b>Microbial Titer Reduction (<math>T_R</math>) ASTM F 838-05</b>
>99.99 %	$T_R > 10^7 / \text{cm}^2 // 0.1-0.2\mu\text{m} : [\text{Brevundimonas Diminuta}]$
>99.99 %	$T_R > 10^7 / \text{cm}^2 // 0.45\mu\text{m} : [\text{Serratia Marcescens}]$

## FLOW RATE

<b>Water Flow 20°C@0.1 bar/10"</b>	0.1um	0.2um	0.45 um
<b>Typical Flow Rate</b>	15 L/min	22 L/min	30 L/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

0.6m<sup>2</sup>/10"

## SANITIZATION

Steam : 125°C/30mins – Hot Water : 80°C/30mins – Autoclave : 121°C/30mins

## MATERIALS OF CONSTRUCTION

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

## SEALING

Ultrasound / Heat sealing

## DIMENSION

<b>Length</b>	254mm (10")-508mm (20")-762mm (30")-1016mm (40")
<b>Outer diameter</b>	69mm

<b>Inner diameter</b>	26mm
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## **TRACEABILITY**

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

[ionexfilters.com](http://ionexfilters.com)

