

Cylindrical Membralox ceramic elements feature the same exceptional performance, mechanical and chemical resistance and service life as the well-recognized Membralox product range.

These membrane geometries are intended to be compatible with a wide range of filter suppliers housing designs.

Membralox membranes are the key components of crossflow systems used in numerous food and beverage applications, such as clarification / concentration / purification of fermentation broths, dextrose syrups, fruits juices, dairy products, etc.

### Description

These Membralox ceramic elements are asymmetric multi-channel membranes composed of a porous alumina support supporting filtering layers casted on the inner surface of the lumens.

Pall Membralox membranes are made from high purity ceramic oxides in multiple geometries.

All along the manufacturing, a stringent quality control process verifies consistency of membrane characteristics versus precise acceptance criteria to deliver reproducible membrane performances, batch after batch, years after years.

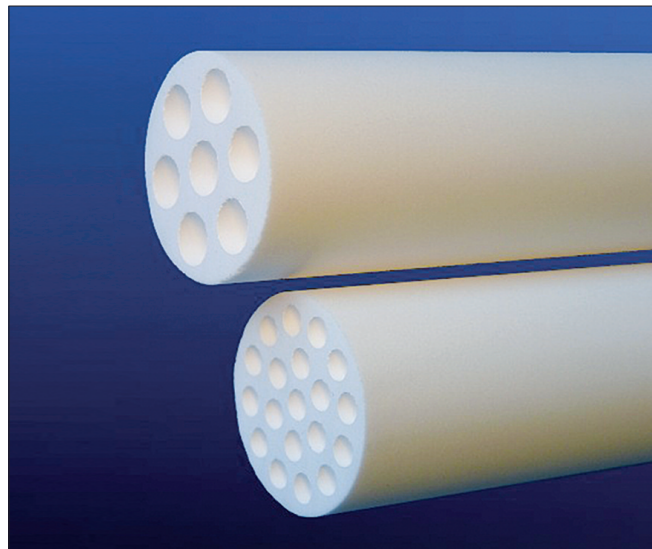
Prior to release, Membralox membranes are 100% bubble point tested to confirm filtration layer and end sealing integrity.

### Features and Benefits

Features	Benefits
Highly asymmetric structure with 12 $\mu\text{m}$ average support pore size	<ul style="list-style-type: none"> <li>High permeability for better permeate flux and performances</li> </ul>
Support structure based on alpha-Alumina with exceptional purity	<ul style="list-style-type: none"> <li>Wide chemical and pH compatibility (0-14)</li> </ul>
Very high support sintering temperature coupled with recrystallization process	<ul style="list-style-type: none"> <li>Exceptional mechanical resistance</li> <li>Excellent thermal stability</li> </ul>
Proprietary alpha-Alumina end-sealing	<ul style="list-style-type: none"> <li>Long term resistance to corrosion</li> <li>Permanent protection against product leakage</li> </ul>
Sharp pore size distribution	<ul style="list-style-type: none"> <li>Optimum filtration performance and selectivity</li> </ul>
Final 100% bubble point testing	<ul style="list-style-type: none"> <li>Filtration layer integrity</li> </ul>
Stringent quality control process and procedures with full traceability	<ul style="list-style-type: none"> <li>Reproducibility, Reliability, Durability</li> <li>Extremely low failure rate in operation</li> </ul>

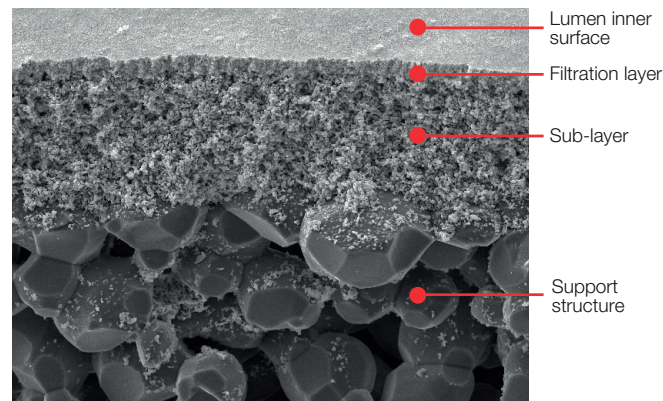
## Cylindrical Membralox® Ceramic Membranes

### Type EC0760 and EC1935



### Materials of construction

Components	Description
Support structure	High purity $\alpha$ -alumina
Filtering layers (depending on pore size)	High purity $\alpha$ -alumina and/or zirconia
End sealing	High purity $\alpha$ -alumina



Cross section view of Membralox ceramic membrane with 50 nmZ pore size

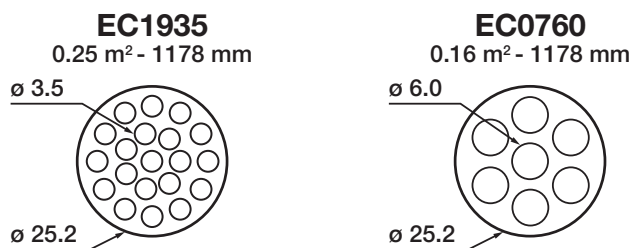
### Quality

Manufactured under an ISO 9001:2008 certified Quality Management System

### Food Contact Compliance

Please refer to the Pall website <http://www.pall.com/foodandbev> for a Declaration of Compliance to specific National Legislation and/or Regional Regulatory requirements for food contact use.

## Technical Information



### Multichannel Element Characteristics

	EC1935	EC0760
Channel diameter <sup>1</sup>	3.5 mm	6.0 mm
Number of channels	19	7
Filtration surface area	0.25 m <sup>2</sup> (2.6 ft <sup>2</sup> )	0.16 m <sup>2</sup> (1.67 ft <sup>2</sup> )
Length	1178 mm (3.86 ft)	1178 mm (3.86 ft)

<sup>1</sup> with filtration layer in the lumens

### Membrane Characteristics

	Pore Sizes <sup>2,3</sup>	Membrane Material
Microfiltration	0.8, 0.5, 0.2 μm	Alpha-alumina
Ultrafiltration	100, 50 nm	Zirconia

The 12 μm pore size ceramic support of Membralox membranes is made of high purity alpha-alumina.

<sup>2</sup> as measured by Pall proprietary permeametry method

<sup>3</sup> other pore sizes available on request

## Ordering Information

This information is a guide to the simplified designation structure and possible options.

For availability of specific options, please contact Pall.

### Example Part Number: EC1935/1178/100nmZ

(Refer to bold references in the tables below)

Part Number: EC  /1178/

Table 1                      Table 2

Table 1: Multichannel Element Type

Code	Description
1935	19 channels 3.5 mm
0760	7 channels 6.0 mm

Table 2: Membrane Pore Size

Code	Description
0.8μA	Alumina 0.8 μm microfiltration layer
0.5μA	Alumina 0.5 μm microfiltration layer
0.2μA	Alumina 0.2 μm microfiltration layer
100nmZ	Zirconia 100 nm ultrafiltration layer
50nmZ	Zirconia 50 nm ultrafiltration layer



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