

# Membrane Filtration

## BECO MEMBRAN H Mini

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### For the Sterilizing Filtration of Gases

**BECO MEMBRAN H Mini filter cartridges with 0.2 µm hydrophobic membrane are used for sterilizing applications that remove particles and microorganisms from gases and solvents. BECO MEMBRAN H Mini filter cartridges are made with PTFE membrane and polypropylene components for broad application compatibility.**

The specific advantages of BECO MEMBRAN H Mini:

- ▶ Sterile tank venting
- ▶ Fermentation air applications
- ▶ Bioreactor inlet and outlet gas filtration
- ▶ Lyophilizers
- ▶ Autoclaves
- ▶ Sterile process gases
- ▶ Sterilisation of alcohol streams

#### Technical Specifications

##### Material

PTFE membrane, rigid polypropylene outer sleeve, core, end-caps and pleat supports; silicone double O-rings (2-218).

##### Cartridge Size

Length: 1"

Diameter: approximately 5.7 cm (22.44 in)

##### Effective Filtration Area

0.05 m<sup>2</sup> per filter cartridge.

##### Maximum Differential Pressure

Forward Pressure	Reverse Pressure
5.50 bar at 25 °C	4.1 bar at 25 °C
1.75 bar at 80 °C	
0.35 bar at 135 °C	

##### Integrity

100 % integrity tested during production.

Bubble Point

≥ 1100 mbar in 70/30 IPA

Water Flow Integrity Test

≤ 0.06 ml/min pure water flow per filter cartridge at 2.6 bar

##### Bacterial Retention

Quantitative retention of *Brevundimonas diminuta* (ATCC 19146) at a challenge level of 10<sup>7</sup>/cm<sup>2</sup>. The filter cartridge meets the definition of a sterilizing-grade filter as described in the FDA "Guideline on Sterile Drug Products by Aseptic Processing" (June, 1987).

##### Gravimetric Extractables

≤ 10 mg per filter cartridge after a 24-hour soak with 70/30 IPA at ambient temperature, after autoclaving.

##### Bacterial Endotoxin

A filter cartridge produces < 0.5 EU/ml bacterial endotoxin as determined using the Limulus Amebocyte Lystate (LAL) test.

##### Toxicity

Component materials meet the criteria of the current USP Class VI Biologicals Test for Plastic.

The filter cartridge also meets requirements of the current USP General (Mouse) Safety Test.

##### Multiple Steaming

Filter cartridges maintain integrity (per bacterial retention testing) after 80 steam cycles of 30 minutes at 135 °C.

##### Typical Air Flow Rates

At 0 bar outlet: 150 Std l/min at a differential pressure of 130 mbar.

At 1 bar inlet: 150 Std l/min at a differential pressure of 95 mbar.

At 2.1 bar inlet: 150 Std l/min at a differential pressure of 70 mbar.

##### Sterilization

May be steam sterilized up to 80 times at 135 °C. Filter cartridges withstand intermittent back pressure of 4.2 bar and forward pressure to 5.5 bar at 25 °C.

##### Delivery Information

Filter cartridges with protective foil.

Pore Size	Package	Article Number
0.20 µm	1	KVLL11TA

## Safety

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When used and handled correctly, there are no known unfavourable effects associated with this product. BECO MEMBRAN H Mini filter cartridges do not require the provision of safety-relevant information. There are no known risks to humans or the environment during storage, handling and transport of the product.

## Disposal

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BECO MEMBRAN H Mini filter cartridges should be treated as industrial waste. Any local and other official regulations must be followed.

## Storage

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BECO MEMBRAN H Mini filter cartridges should be stored in their original packaging, and in a dry and odour-free place. Never store the product near evaporating chemicals, oils or fuels etc. The filter cartridges should be used within 2 years after delivery.

## Certified Quality

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BECO MEMBRAN H Mini filter cartridges are monitored for uniformly high product quality during the production process.



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