

Filtration with BECO filter cartridges



BECO MEMBRAN PSplus

BECO MEMBRAN PSplus filter cartridges are made of hydrophilic PES (Polyethersulphone) membranes.

Your special benefits:

- Highest microbiological safety
- Easily wettable, which means the integrity test is straightforward
- Broad chemical compatibility with commonly used sanitising agents
- High throughput

Typical applications

BECO MEMBRAN PSplus membrane filter cartridges are designed for the sterile filtration of

- beverages such as beer, wine, mineral water, cider and fruit juices.
- liquid foods.

Features:

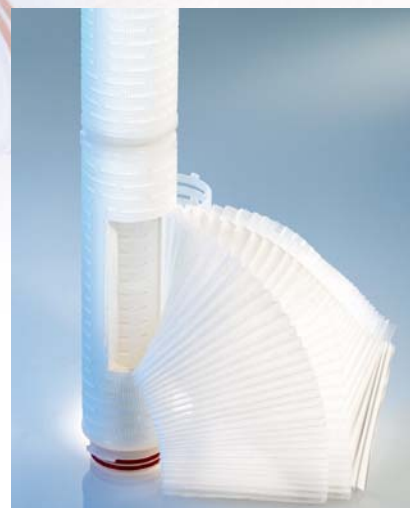
- High-quality membranes made of polyethersulfone ensure maximum germ retention
- Upstream and downstream draining devices made of polyester
- Absolute retention ratings 0.2 μm , 0.45 μm , 0.65 μm and 0.8 μm
- Filter cartridge materials are chemically and biologically inert according to FDA and EC Directive 2002/72/EC

Principles of membrane filtration

The main principle of membrane filtration is a sieving effect based on a size exclusion mechanism.

Membrane filters may be thought of as a geometrically regular porous matrix. Particles are retained on the surface or within a given fraction of the membranes thickness. All microorganisms or particles larger than the pore size will be retained.

*Detailed specifications:
see Technical Information 1 A 4.3.5*



BECO PROTECT PP

BECO PROTECT PP pre-filter cartridges are made of pleated multiple layers of polypropylene filter material.

Your special benefits:

- Absolute retention ratings according to β -ratio 5000
- Manufactured from 100 % polypropylene to provide wide chemical compatibility
- Large filtration area by pleated filter material

Typical applications

- BECO PROTECT PP pre-filter cartridges are designed for the
- filtration in the food and beverage industry (wine, juices, mineral water, soft drinks, edible oils).
 - general liquid and gas filtration.

Features:

- Non-woven pleated polypropylene filter medium
- Filter cartridge materials are chemically and biologically inert according to FDA and EC Directive 2002/72/EC

Principles

The BECO PROTECT PP pre-filter cartridges contain a multi-layered filter medium made of polymeric fibers. Particles larger than the spaces within the filter matrix are retained. Due to the multiple-layer structure of the pleated filter medium, BECO PROTECT PP pre-filter cartridges exhibit a high dirt holding capacity.

*Detailed specifications:
see Technical Information 1 A 4.3.7*



BECO PROTECT PG

BECO PROTECT PG depth filter cartridges are made of polypropylene filter media that are wound around an internal core. The special feature of these depth filter cartridges is gradually decreasing porosity from outside to inside, which ensures high dirt holding capacity.

Your special benefits:

- Absolute retention rating tested at Beta 5000 for depth filter cartridges from 0.2 µm up to 75.0 µm
- Made from 100% polypropylene for wide chemical compatibility with most gases and liquids
- Graded porosity through depth filtering structure provides increased dirt holding capacity for longer service life
- Back-washable up to 2 bar at 80 °C

Typical applications

BECO PROTECT PG cartridges are designed for the clarification and fine filtration for

- beverages such as wine, sparkling wine, beer, mineral water, cooking oil, alcoholic beverages, sugar syrup and non-alcoholic beverages.

Features:

- Wrapped polypropylene filter material
- All materials used are FDA-listed and meet the requirements of EC Directive 2002/72/EC

Principles

The direction of flow in the BECO PROTECT PG depth filter cartridge is from the outside in. The polypropylene fleeces are graded from coarse to fine. The inner fine fleeces define the "absolute" retention rate range. Due to this structure, the BECO PROTECT PG depth filter cartridge offers excellent backwashability. Any blockage can thus be purged more easily against the direction of filtration.

*Detailed specifications:
see Technical Information 1 A 4.3.1*



BECO PROTECT PB

BECO PROTECT PB depth filter cartridges are made of thermally bonded blown polypropylene microfibers.

Your special benefits:

- High throughput, low pressure loss, high dirt holding capacity
- Made from pure polypropylene, therefore high chemical resistance
- Elements can be incinerated to trace ash, thereby reducing disposal costs

Typical applications

BECO PROTECT PB depth filter cartridges are designed for the coarse filtration of

- food and beverages.

Features:

- High mechanical strength, making internal and external support bodies unnecessary
- Nominal retention ratings between 0.5 and 100 µm

Principles

BECO PROTECT PB depth filter cartridges are the economic choice for coarse filtration applications where low filtration costs are a significant issue.

The firm pore structure acts like a screen filter.


Detailed specifications:

see Technical Information 1 A 4.3.8



Adapter code

BECO MEMBRAN PSplus			x	x		x
BECO PROTECT PP		x	x	x	x	x
BECO PROTECT PG	x	x	x	x	x	x
BECO PROTECT PB	x	x				
	Code X	Code F	Code 0	Code 2	Code 5	Code 7
	Double open end without end caps	Double open end 2 flat gaskets	2-222 O-Ring without spear	2-222 O-Ring Triple bayonet with spear	2-222 O-Ring with spear	2-226 O-Ring Double bayonet with spear



The BECO filter cartridges are available in the following pore sizes:

BECO MEMBRAN PSplus	0.2 µm	0.45 µm	0.65 µm	0.8 µm								
BECO PROTECT PP	0.6 µm	1.2 µm	2.5 µm	4.5 µm	6.5 µm	10.0 µm	20.0 µm	40.0 µm	60.0 µm			
BECO PROTECT PG	0.2 µm	0.3 µm	0.6 µm	1.0 µm	2.0 µm	3.0 µm	5.0 µm	10.0 µm	20.0 µm	30.0 µm	50.0 µm	75.0 µm
BECO PROTECT PB	0.5 µm	1.0 µm	3.0 µm	5.0 µm	10.0 µm	25.0 µm	50.0 µm	75.0 µm	100.0 µm			

The BECO filter cartridges are available in the following lengths:

10" (25 cm), 20" (50 cm), 30" (75 cm), 40" (100 cm)

All information is given to the best of our knowledge.

They reflect current know-how and do not claim to be complete.

No warranty is expressed or implied.

The application of our products outside the test criteria specified in the technical information requires separate verification by the customer. In such cases, no liability for any damage whatsoever can be accepted. Further detailed information can be found in the respective technical information sheets, instruction manuals and user notes. Misuse of the product will result in all warranties being voided, including any third-party commercial property rights.

Subject to change in the interest of technical progress.



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