

# Cartridge Filtration

## BECO PROTECT® PG Depth Filter Cartridges

1 A 4.3.1 · EB  
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BECO PROTECT® PG depth filter cartridges consist of wrapped polypropylene filter material with different layers from coarse to fine. The cage and end caps are made from polypropylene and are thermally bonded to each other, thus achieving very high chemical resistance.

BECO PROTECT® PG depth filter cartridges are used in a variety of applications in the beverage and the food industry.

### Characteristics and Advantages

The specific advantages of BECO PROTECT® PG:

- ▶ Absolute retention rate for a reliable separation effect,  $\beta$  ratio  $\geq 5000$
- ▶ Long filter life service
- ▶ High chemical resistance through use of 100 % polypropylene
- ▶ High stability enables safe filtration even in the presence of pressure surges and high differential pressures
- ▶ High dirt holding capacity through graded filter configuration
- ▶ Back-washable up to 2 bar (29 psig) at 80 °C (176 °F)

### Configuration of the Depth Filter Cartridge

BECO PROTECT® PG depth filter cartridges are made from high-quality, wrapped polypropylene layers. The filter material has a broad chemical compatibility. The internal and external polypropylene support core ensures maximum mechanical stability. All materials used ensure product-neutral filtration without adsorption or particle migration. The BECO PROTECT® PG depth filter cartridges therefore meet the requirements of the customer in terms of safe, gentle filtration of his products.

#### Materials used:

Filter material:	Polypropylene
Internal and external support body:	Polypropylene. Exception: Code F, X no external support body
End caps/adapters:	Polypropylene, adaptater with reinforcing ring
O-rings:	Silicone (standard)

All materials used meet the FDA requirements according to 21 CFR § 177.1520.

### Filter Cartridges Types/Retention Rates

Absolute ( $\beta$  ratio  $\geq 5000$ )

Filter cartridge type	Retention rate [ $\mu\text{m}$ ]	Filter cartridge type	Retention rate [ $\mu\text{m}$ ]
PG002	0.2	PG150	15.0
PG003	0.3	PG200	20.0
PG005	0.5	PG300	30.0
PG006	0.6	PG400	40.0
PG008	0.8	PG500	50.0
PG010	1.0	PG750	75.0
PG020	2.0	PG990	100.0
PG030	3.0	PG992	120.0
PG050	5.0	PG995	150.0
PG100	10.0		

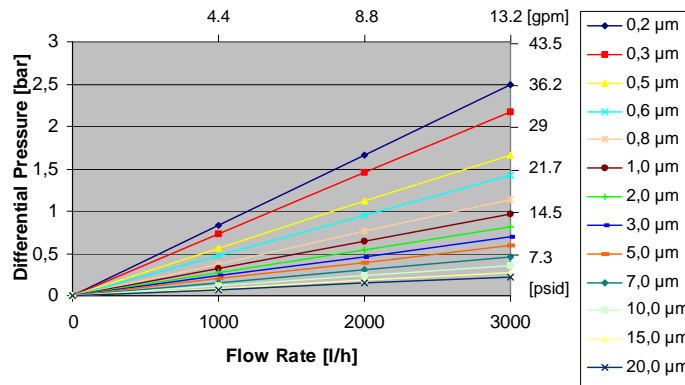
### Technical Data

<b>Diameter:</b>	70 mm (2.75 in)
<b>Max. operating temperature:</b>	80 °C (176 °F)
<b>Maximum pressure difference in flow direction:</b>	4.0 bar (58 psid) at 25 °C (77 °F) 2.0 bar (29 psid) at 80 °C (176 °F)
<b>Sterilisation with steam:</b>	max. 1 bar (14.5 psig) (121 °C/250 °F); 30 minutes
<b>Chemical sterilization:</b>	can be sterilized with conventional chemical cleaners

More detailed information regarding regeneration can be found in our Note of Application 1 A 4.3.1.1

Nom. length for Code F, X	
9 = 9 ¾ "	248 mm
1 = 10"	254 mm
7 = 19 ½ "	500 mm
2 = 20"	508 mm
8 = 29 ½ "	750 mm
3 = 30"	762 mm
4 = 40"	1016 mm

**Flow Rate: 10" Element with Water at 20 °C (68 °F) (Recommended Values)**



**Ordering Information**

Depth filter cartridges with protective foil in carton.

Filter type	Retention rate	Adapter	Nominal length	Gasket
PG	002 = 0.2 µm	F = Code F	1= 10"/ 25cm	S = silicone
	003 = 0.3 µm	0 = Code 0	2= 20"/ 50 cm	E = EPDM
	005 = 0.5 µm	2 = Code 2	3= 30"/ 75 cm	V = viton
	006 = 0.6 µm	5 = Code 5	4=40"/100 cm	X = without
	008 = 0.8 µm	7 = Code 7		
	010 = 1.0 µm	X = code X, without adapter		
	020 = 2.0 µm			
	030 = 3.0 µm			
	050 = 5.0 µm			
	100 = 10.0 µm			
	150 = 15.0 µm			
	200 = 20.0 µm			
	300 = 30.0 µm			
	400 = 40.0 µm			
	500 = 50.0 µm			
	750 = 75.0 µm			
	990 = 100.0 µm			
	992 = 120.0 µm			
	995 = 150.0 µm			

**Example**

PG 006 7 1 S  
 BECO PROTECT® PG depth filter cartridges 0.6 µm retention rate; Code 7, 10"; silicone gasket

**Safety**





When used and handled correctly, there are no known unfavorable effects associated with this product. BECO PROTECT® PG depth 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.

**Disposal**

BECO PROTECT® PG depth filter cartridges should be treated as industrial waste. Any local and other official regulations must be followed, taking the product to be filtered into account.

**Adapter Codes**

Code 0	Code 5
2-222	2-222
O-ring without centering tip	O-ring with centering tip
	
Code 2	Code 7
2-226	2-226
O-ring 3 bayonet adapter with centering tip	O-ring 2 bayonet adapter with centering tip
	

HS Customs Tariff: 8421 99 00

**Storage**

BECO PROTECT® PG depth filter cartridges should be stored in their original packaging, and in a dry and odor-free and UV ray protected 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**

During the production process, BECO PROTECT® PG depth filter cartridges are monitored constantly to ensure consistently high quality.



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