Technical Data Sheet

Depth Filtration
BECO PROTECT® PG

Depth Filter Cartridges

BECO PROTECT PG depth filter cartridges consist of wrapped polypropylene filter material with different layers from coarse to fine. The cage, core and end caps are made from polypropylene and are thermally bonded to each other, thus achieving very high chemical, thermal and mechanical stability.

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

Features and Benefits

- High retention for a reliable separation effect, ß ratio ≥ 5000 or ≥ 99.98% efficiency for defined particles
- Long filter service life
- High chemical resistance through use of 100% polypropylene
- High dirt holding capacity through graded filter configuration
- Back-washable up to 29 psig (200 kPa, 2 bar) at 176 °F (80 °C)

Configuration

BECO PROTECT PG depth filter cartridges are made from high-quality, wrapped polypropylene layers. The filter material has a broad chemical compatibility. The cage and core of polypropylene ensures maximum mechanical stability. All materials used ensure product-neutral filtration without adsorption or particle migration.

Materials

Filter material:	Polypropylene
Cage, core	Polypropylene Exception: Code F, X no cage
End cap/adapter:	Polypropylene, adapter with reinforcing ring
O-rings:	Silicone (standard)

The plastic components meet the requirements of Directive 10/2011/EC and amendments. All materials used meet the FDA requirements according to 21 CFR § 177.1520.

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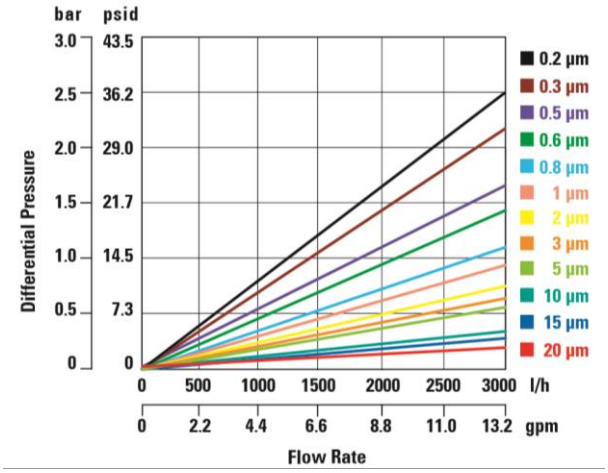
Technical Data

Nominal 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)

Diameter:	2.75 in (70 mm)
Maximum operating temperature:	176 °F (80 °C)
Maximum differential pressure in flow direction:	69 psid (480 kPa, 4.8 bar) at 77 °F (25 °C) 29 psid (200 kPa, 2 bar) at 176 °F (80 °C)
Hot water sterilization:	Max. 194°F (90 °C) for 30 minutes
Steam sterilization:	Max. 14.5 psig (100 kPa, 1 bar) at 250 °F (121 °C) for 30 minutes
Chemical sterilization:	Can be sterilized with conventional chemical cleaners

Flow Rate

10" with water at 68 °F (20 °C) (standard values)



Filter Cartridges Types/Retention Ratings

Type	Retention rating (µm)
PG002	0.2
PG003	0.3
PG005	0.5
PG006	0.6
PG008	0.8
PG010	1.0
PG020	2.0
PG030	3.0
PG050	5.0
PG100	10.0

Type	Retention rating (µm)
PG150	15.0
PG200	20.0
PG300	30.0
PG400	40.0
PG500	50.0
PG750	75.0
PG990	100.0
PG992	120.0
PG995	150.0

Adapter Codes

Code F	Code X
Double open end (DOE) with two flat gaskets	Double open end (DOE) without end caps
	

Code 0	Code 2
Single open end (SOE) 2-222 O-ring without spear	Single open end (SOE) 2-222 O-ring triple bayonet adapter with spear
	

Code 7
Single open end (SOE) 2-226 O-ring double bayonet adapter with spear


Ordering Information

BECO PROTECT PG depth filter cartridges with protective foil in carton.

Type	Retention rating	Adapter	Nominal length	Gasket
PG	002 = 0.2 µm	F = Code F (DOE)	1 = 10" (250 mm)	S = Silicone
	003 = 0.3 µm	0 = Code 0 (SOE)	2 = 20" (500 mm)	E = EPDM
	005 = 0.5 µm	2 = Code 2 (SOE)	3 = 30" (750 mm)	V=Flourelastomer
	006 = 0.6 µm	7 = Code 7 (SOE)	4 = 40" (1000 mm)	X = Without
	008 = 0.8 µm	X = Code X (DOE), without end caps		
	010 = 1.0 µm			
	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 rating; Code 7, 10" (250 mm); silicone gasket

Regeneration

Rinse BECO PROTECT PG depth filter cartridges after each use in the direction of flow using approximately 1 µm of filtered, softened water under counter pressure. This will primarily remove any deposited, water-soluble haze substances such as polysaccharides (glucanes), proteins, tannins, tartaric acid crystals. Rinsing with hot water (176 °F/80 °C) will typically remove persistent residues, if used in a timely manner. The hot water may remain in the filter overnight.

Note: Detailed information on regeneration and chemical cleaning can be found in Note of Application 1 A 4.3.1.1 and 1 A 4.7.

Safety

When used as directed 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.

Storage, handling and transport do not present any environmental and health risks.

Disposal

BECO PROTECT PG depth filter cartridges should be treated as industrial waste. Any local and other official regulations in relation to the filtered product must be followed.

Storage

Store depth filter cartridges in their original packaging and in a dry, odor-free and UV ray protected place.

Use filter cartridges within 60 months after production date.

Certified Quality

During the production process, BECO PROTECT PG depth filter cartridges are regularly monitored to ensure consistent excellent quality control.

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