

**Filtration** Products

# BECO and BECOPAD depth filter sheets

**EATON**

*Powering Business Worldwide*

# Depth filter sheets - the heart of many filtration solutions

Eaton is a leading supplier of complete depth filtration solutions and develops, manufactures and provides high-quality depth filtration media for food, beverage, fine chemical and pharmaceutical applications.

Depth filter sheets are used for coarse, clarifying and fine filtration and are particularly suitable for microbial reduction and removal, as well as upstream protection of membranes. The application of support sheets ranges from recovery of valuable material, such as protein precipitate, to support material for pre-coat filtration.

Finely fibrillated cellulose fibers are combined with filtration-active components to manufacture BECO® depth filter sheets. Whereas, BECOPAD® depth filter sheets are constructed of high-purity cellulose fibers without the addition of mineral components.

They are used as filter media in BECODISC® stacked disc cartridges, BECO PROTECT® CS CellStream depth filter cartridges and BECO® MiniCap® disposable filter units.

The product range of depth filter media also contains filtration systems in a range of designs and sizes.

Enclosed systems:

- BECO INTEGRA PLATE™ plate and frame filters
- BECO INTEGRA DISC™ stacked disc cartridge housings
- BECO INTEGRA CART™ cartridge housings
- BECO INTEGRA SOLO™ single-sheet filters
- BECO INTEGRA LAB™ laboratory filters

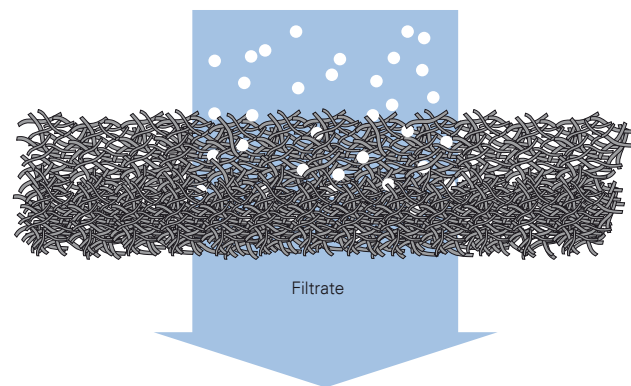
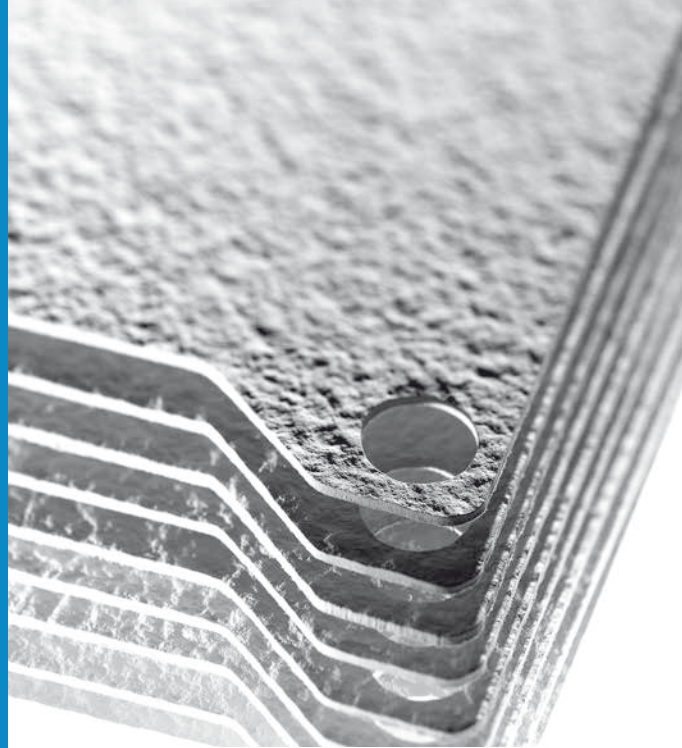
Classic systems:

- BECO COMPACT PLATE™ plate and frame filters

Eaton depth filter sheets meet national and international quality standards, such as:

- LFGB standard (German Food, Commodity and Feed Act) in Germany
- FDA guidelines (Food and Drug Administration) from the USA

For further information, please refer to the Declaration of Conformity documents, technical data sheets and Validation Guides, especially for the pharmaceutical industry.



Principle of depth filtration



# BECO and BECOPAD Depth Filter Sheet Ranges

## Selection guide

For a wide range of applications



### BECOPAD

Premium depth filter sheets made of cellulose, characterized by high-purity, strength and performance for excellent color and flavor fidelity.

**Main applications:**

Wine, beer, fruit juices, spirits, food, fine/specialty chemistry, biotechnology, pharmaceutical, cosmetics



### BECO standard

Depth filter sheets with excellent clarification performance for reliable removal from particles to microorganisms due to optimal pore structure and adsorption.

**Main applications:**

Wine, beer, fruit juices, spirits, food, fine/specialty chemistry, biotechnology, pharmaceutical, cosmetics



### BECO CPS

Depth filter sheets with high dirt-holding capacity and burst strength for filtration of liquids with high viscosity or particle load.

**Main applications:**

Fine/specialty chemistry, biotechnology, pharmaceutical, cosmetics, food, fruit juices

Activated carbon depth filter sheets



### BECO ACF 07

Immobilized activated carbon imparts high adsorption capacity to carbon depth filter sheets for removal of colors, odors and undesirable byproducts from liquids.

**Main applications:**

Fine/specialty chemistry, biotechnology, pharmaceutical, cosmetics, fruit juices, spirits, food



### BECO CP1

Depth filter sheets specifically manufactured with reduced thickness for polishing filtration of viscous liquids.

**Main applications:**

Fine/specialty chemistry, cosmetics

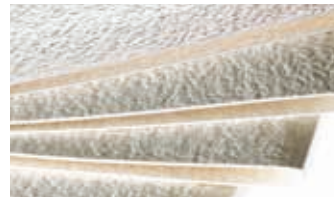


### BECO SELECT A

Depth filter sheets specifically manufactured with reduced calcium and magnesium for prevention and removal of haze while preserving color and flavor.

**Main applications:**

Spirits, flavors and fragrances



### BECO ENDURA

Reusable support sheet for pre-coat filtration. Excellent wet strength combined with an optimal filter surface texture for removal of filter cake with ease.

**Main applications:**

Beer, food, fine/specialty chemistry, cosmetics

Low endotoxin content suitable for pharmaceutical applications



### BECOPAD P

Depth filter sheets composed of high-purity cellulose with low extractables, extremely low endotoxin content ( $<0.025$  EU/ml) after rinsing with  $6.6$  gal/sqm ( $25$  l/m<sup>2</sup>) WFI (Water for Injection) and up to 50 % reduction of rinse volume.

**Main applications:**

Pharmaceutical, fine/specialty chemistry, biotechnology  
A Validation Guide is available upon request.



### BECO PR

Depth filter sheets with excellent clarification performance for reliable removal of particulate, microorganisms and retention of endotoxins due to optimal combination of depth filtration and adsorption. An endotoxin content of  $<0.125$  EU/ml after rinsing with  $13.2$  gal/sqm ( $50$  l/m<sup>2</sup>) WFI is achieved.

**Main applications:**

Pharmaceutical, fine/specialty chemistry, biotechnology  
A Validation Guide is available upon request.



### BECO PR ENDURA S

Support sheets specifically formulated for pre-coat filtration and valuable product recovery. The unusual surface qualities enable quick paste release in applications such as plasma fractionation. An endotoxin content of  $<0.08$  EU/ml after rinsing with  $13.2$  gal/sqm ( $50$  l/m<sup>2</sup>) WFI is achieved.

**Main applications:**

Pharmaceutical, fine/specialty chemistry, biotechnology  
A Validation Guide is available upon request.

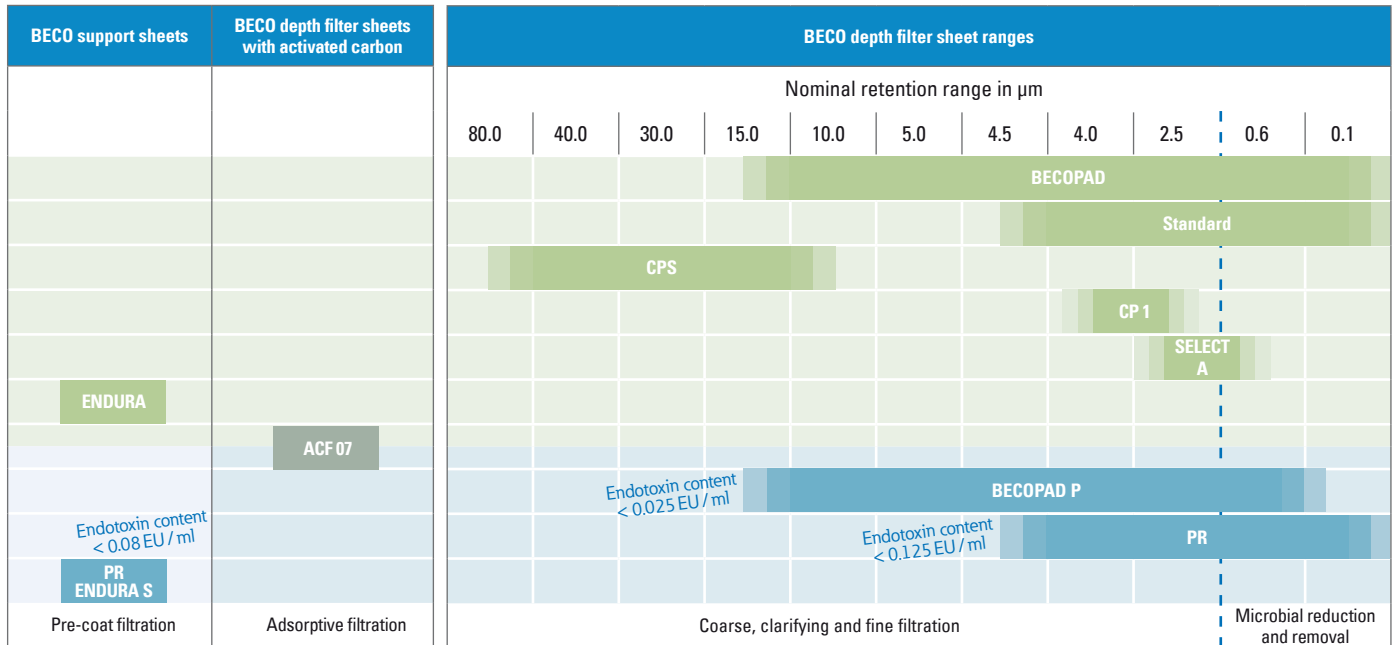
# Technical data

Range	Type	Article number	Nominal retention rate	Thickness		Ash content	Bursting strength wet		Water throughput		Endotoxin content
				μm	in (mm)		psi (kPa <sup>1</sup> )	psi (kPa <sup>1</sup> )	Δ p = 14.5 psi (Δ p = 100 kPa <sup>1</sup> ) gpm/ft <sup>2</sup> l/m <sup>2</sup> /min	EU/ml	
BECOPAD	BECOPAD 115 C <sup>2</sup>	Q2C11	0.1 – 0.2	0.16 (4.1)	<1	>21.8 (150)	0.6 (26)	-			
	BECOPAD 120 <sup>2</sup>	Q2112	0.1 – 0.3	0.15 (3.9)	<1	>21.8 (150)	1.3 (54)	-			
	BECOPAD 170 <sup>2</sup>	Q2117	0.2 – 0.4	0.15 (3.9)	<1	>21.8 (150)	1.9 (77)	-			
	BECOPAD 220 <sup>2</sup>	Q2122	0.3 – 0.5	0.15 (3.9)	<1	>21.8 (150)	2.5 (100)	-			
	BECOPAD 270 <sup>2</sup>	Q2127	0.5 – 0.7	0.15 (3.9)	<1	>21.8 (150)	3.3 (135)	-			
	BECOPAD 350 <sup>2</sup>	Q2135	0.7 – 1.0	0.15 (3.9)	<1	>21.8 (150)	3.9 (160)	-			
	BECOPAD 450 <sup>2</sup>	Q2145	1.0 – 2.0	0.15 (3.9)	<1	>21.8 (150)	7.4 (300)	-			
	BECOPAD 550 <sup>2</sup>	Q2155	2.0 – 3.0	0.15 (3.9)	<1	>21.8 (150)	14.0 (570)	-			
BECOPAD 580 <sup>2</sup>	Q2158	8.0 – 10.0	0.15 (3.9)	<1	>21.8 (150)	87.6 (3571)	-				
BECO standard	BECO Steril S 100	26950	0.1	0.15 (3.9)	58	>7.3 (50)	0.7 (30)	-			
	BECO Steril S 80	26800	0.2	0.15 (3.9)	50	>11.6 (80)	1.1 (46)	-			
	BECO Steril 60	25600	0.3	0.15 (3.8)	50	>7.3 (50)	1.5 (60)	-			
	BECO Steril 40	25400	0.4	0.15 (3.8)	49	>7.3 (50)	1.7 (69)	-			
	BECO SD 30	24300	0.5	0.15 (3.8)	50	>7.3 (50)	2.1 (84)	-			
	BECO KDS 15	23150	0.6	0.15 (3.8)	50	>7.3 (50)	2.8 (115)	-			
	BECO KDS 12	23120	0.8	0.15 (3.8)	50	>7.3 (50)	3.8 (155)	-			
	BECO KD 10	22100	1.0	0.15 (3.8)	50	>7.3 (50)	4.5 (185)	-			
	BECO KD 7	22070	1.5	0.15 (3.8)	50	>7.3 (50)	5.5 (225)	-			
	BECO KD 5	22050	2.0	0.15 (3.8)	50	>7.3 (50)	6.6 (270)	-			
	BECO KD 3	22030	2.5	0.15 (3.8)	50	>5.8 (40)	10.4 (425)	-			
	BECO K2	21020	3.0	0.15 (3.8)	46	>7.3 (50)	38.0 (1550)	-			
	BECO K1	21010	4.0	0.15 (3.8)	42	>8.7 (60)	46.6 (1900)	-			
	BECO CPS	BECO CP07S	27108	15.0	0.14 (3.6)	35	>16.0 (110)	105.3 (4290)	-		
BECO CP03S		27123	20.0	0.15 (3.7)	35	>13.1 (90)	175.2 (7140)	-			
BECO CP02S		27122	25.0	0.13 (3.3)	17	>13.1 (90)	233.6 (9520)	-			
BECO CP01S		27121	30.0	0.18 (4.6)	16	>14.5 (100)	306.8 (12500)	-			
BECO CP2KS <sup>2</sup>		27031	27.0	0.11 (2.9)	<1	>11.6 (80)	239.5 (9760)	-			
BECO CP1KS <sup>2</sup>		27021	40.0	0.17 (4.3)	<1	>21.8 (150)	555.1 (22620)	-			
BECO CPI	BECO CP1	27110	3.0	0.1 (2.6)	48	>14.5 (100)	26.3 (1070)	-			
BECO SELECT A	BECO SELECT™ A 20	27620	0.8	0.17 (4.4)	43	>5.8 (40)	3.9 (160)	-			
	BECO SELECT A 40	27640	2.5	0.17 (4.4)	43	>5.8 (40)	7.4 (300)	-			
BECO ENDURA	BECO ENDURA™ <sup>2</sup>	29200	-	0.13 (3.4)	<1	>101.5 (700)	105.3 (4290)	-			
BECO ACF 07	BECO ACF 07	19207	-	0.15 (3.8)	15	>5.8 (40)	34.7 (1415)	-			
	BECO ACF 07 with protective paper	19307	-	0.14 (3.6)	16	>4.3 (30)	14.7 (600)	-			
BECOPAD P	BECOPAD P 170 <sup>2</sup>	Q1117	0.2 – 0.4	0.15 (3.9)	<1	>21.8 (150)	1.9 (77)	<0.025 <sup>3</sup>			
	BECOPAD P 270 <sup>2</sup>	Q1127	0.5 – 0.7	0.15 (3.9)	<1	>21.8 (150)	3.3 (135)	<0.025 <sup>3</sup>			
	BECOPAD P 350 <sup>2</sup>	Q1135	0.7 – 1.0	0.15 (3.9)	<1	>21.8 (150)	3.9 (160)	<0.025 <sup>3</sup>			
	BECOPAD P 550 <sup>2</sup>	Q1155	2.0 – 3.0	0.15 (3.9)	<1	>21.8 (150)	14.0 (570)	<0.025 <sup>3</sup>			
	BECOPAD P 580 <sup>2</sup>	Q1158	8.0 – 10.0	0.15 (3.9)	<1	>21.8 (150)	87.6 (3571)	<0.025 <sup>3</sup>			
BECO PR	BECO PR Steril S100	27295	0.1	0.15 (3.9)	58	>7.3 (50)	0.7 (30)	<0.125 <sup>4</sup>			
	BECO PR Steril S 80	27280	0.2	0.15 (3.9)	50	>11.6 (80)	1.1 (46)	<0.125 <sup>4</sup>			
	BECO PR Steril 40	27240	0.4	0.15 (3.9)	49	>7.3 (50)	1.5 (61)	<0.125 <sup>4</sup>			
	BECO PR 12	27212	0.8	0.15 (3.9)	50	>18.9 (130)	4.3 (175)	<0.125 <sup>4</sup>			
	BECO PR 5	27205	2.0	0.15 (3.9)	50	>8.7 (60)	8.1 (330)	<0.125 <sup>4</sup>			
	BECO PR 1	27200	4.0	0.17 (4.3)	48	>6.5 (45)	58.4 (2381)	<0.125 <sup>4</sup>			
BECO PR ENDURA S	BECO PR ENDURA S <sup>2</sup>	29450	-	0.06 (1.5)	<1	>58.0 (400)	18.9 (770)	<0.08 <sup>4</sup>			

<sup>1</sup> 100 kPa = 1 bar | <sup>2</sup> Without the addition of mineral components | <sup>3</sup> Determination after rinsing with 6.6 gal/sqm (25 l/m<sup>2</sup>) WFI (Water for Injection) | <sup>4</sup> Determination after rinsing with 13.2 gal/sqm (50 l/m<sup>2</sup>) WFI



## Retention ranges and filtration tasks



## Ordering information

### BECOPAD depth filter sheets

#### Note for orders:

Our 8-digit order no. consists of two parts:

- the 5-digit article no. and
- the 3-digit format no.

#### Examples for the format no. code:

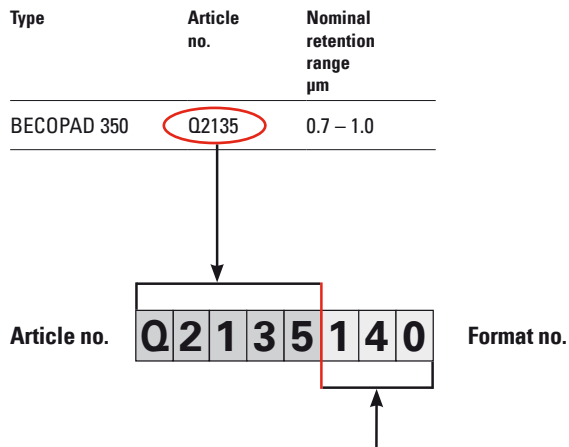
Format 200 x 200 mm = format no. 120

Format 400 x 400 mm = format no. 140

Format 600 x 615 mm = format no. 160

#### Example for order no.:

BECOPAD 350 in format 400 x 400 mm = 140



### BECO depth filter sheets

#### Note for orders:

Our 8-digit order no. consists of two parts:

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- the 3-digit format no.

#### Examples for the format no. code:

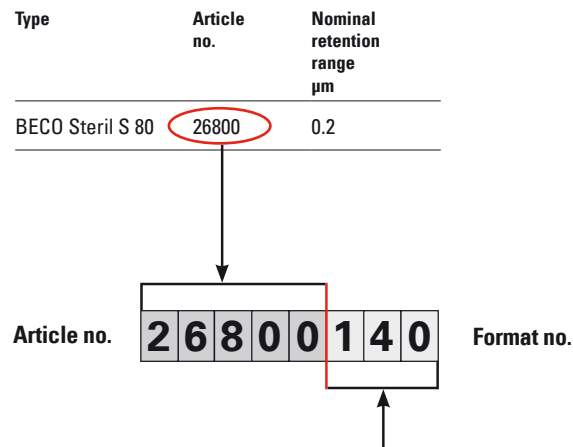
Format 200 x 200 mm = format no. 120

Format 400 x 400 mm = format no. 140

Format 600 x 615 mm = format no. 160

#### Example for order no.:

BECO Steril S 80 in format 400 x 400 mm = 140



All common square or round filter sizes are available for delivery. Special formats are available upon request.



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