BECO and **BECOPAD** depth filter sheets



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 filtrationactive 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

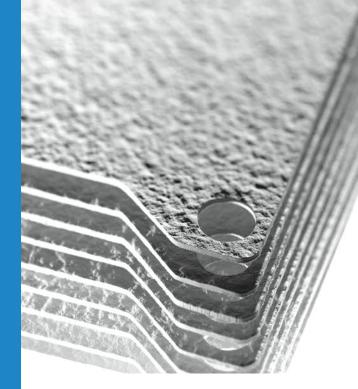
Classic systems:

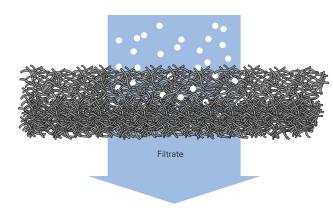
BECO COMPACT PLATE[™] plate and frame filters

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 CP1

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

Main applications:

Fine/specialty chemistry, 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 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



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



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 (251/m²) 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/m²) 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/m²) WFI is achieved.

Main applications:

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

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

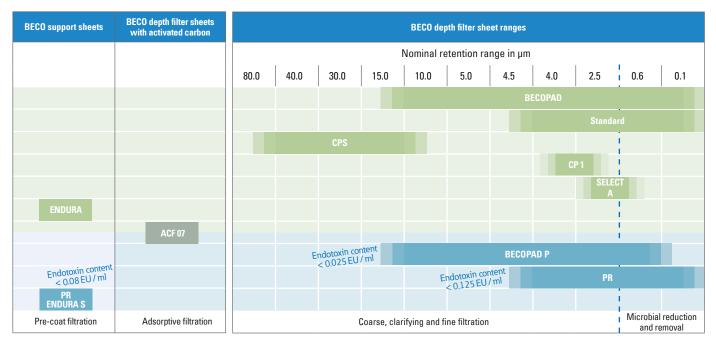
Technical data

Range	Туре	Article number	Nominal retention rate	Thickness		Ash content	Bursting strength wet		Water throughput		Endotoxin content
		number	μm	in	(mm)	%	psi	(kPa ¹)	$\Delta p = 14.5 psi gpm/ft^2$	$(\Delta p = 100 \text{ kPa}^1$ $l/m^2/min)$	EU/ml
BECOPAD	BECOPAD 115 C ²	Q2C11	0.1 – 0.2	0.16	(4.1)	<1	> 21.8	(150)	0.6	(26)	-
	BECOPAD 120 ²	Q2112	0.1 – 0.3	0.15	(3.9)	<1	> 21.8	(150)	1.3	(54)	-
	BECOPAD 170 ²	Q2117	0.2 - 0.4	0.15	(3.9)	<1	> 21.8	(150)	1.9	(77)	-
	BECOPAD 220 ²	Q2122	0.3 – 0.5	0.15	(3.9)	<1	> 21.8	(150)	2.5	(100)	-
	BECOPAD 270 ²	Q2127	0.5 – 0.7	0.15	(3.9)	<1	> 21.8	(150)	3.3	(135)	-
	BECOPAD 350 ²	Q2135	0.7 – 1.0	0.15	(3.9)	<1	> 21.8	(150)	3.9	(160)	-
	BECOPAD 450 ²	Q2145	1.0 - 2.0	0.15	(3.9)	<1	> 21.8	(150)	7.4	(300)	-
	BECOPAD 550 ²	Q2155	2.0-3.0	0.15	(3.9)	<1	> 21.8	(150)	14.0	(570)	-
	BECOPAD 580 ²	Q2158	8.0 - 10.0	0.15	(3.9)	<1	> 21.8	(150)	87.6	(3571)	-
	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)	-
ard	BECO KDS 15	23150	0.6	0.15	(3.8)	50	> 7.3	(50)	2.8	(115)	-
BECO standard	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 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)	-
3ECO CPS	BECO CP02S	27122	25.0	0.13	(3.3)	17	> 13.1	(90)	233.6	(9520)	-
CP	BECO CP01S	27121	30.0	0.18	(4.6)	16	> 14.5	(100)	306.8	(12500)	-
	BECO CP2KS ²	27031	27.0	0.11	(2.9)	<1	> 11.6	(80)	239.5	(9760)	-
	BECO CP1KS ²	27021	40.0	0.17	(4.3)	<1	> 21.8	(150)	555.1	(22620)	-
BECO CP1	BECO CP1	27110	3.0	0.1	(2.6)	48	> 14.5	(100)	26.3	(1070)	-
BEC0 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™²	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)	-
BECO BECOPAD PR	BECOPAD P 170 ²	Q1117	0.2 - 0.4	0.15	(3.9)	<1	> 21.8	(150)	1.9	(77)	< 0.025 ³
	BECOPAD P 270 ²	Q2127	0.5 – 0.7	0.15	(3.9)	<1	> 21.8	(150)	3.3	(135)	< 0.025 ³
	BECOPAD P 350 ²	Q2135	0.7 – 1.0	0.15	(3.9)	<1	> 21.8	(150)	3.9	(160)	< 0.025 ³
	BECOPAD P 550 ²	Q2155	2.0 - 3.0	0.15	(3.9)	< 1	> 21.8	(150)	14.0	(570)	< 0.025 ³
	BECOPAD P 580 ²	Q2158	8.0 - 10.0	0.15	(3.9)	<1	> 21.8	(150)	87.6	(3571)	< 0.025 ³
	BECO PR Steril S100	27295	0.1	0.15	(3.9)	58	>7.3	(50)	0.7	(30)	< 0.125 ⁴
	BECO PR Steril S 80	27280	0.2	0.15	(3.9)	50	> 11.6	(80)	1.1	(46)	< 0.125 ⁴
	BECO PR Steril 40	27240	0.4	0.15	(3.9)	49	>7.3	(50)	1.5	(61)	< 0.125 4
	BECO PR 12	27212	0.8	0.15	(3.9)	50	> 18.9	(130)	4.3	(175)	< 0.125 4
	BECO PR 5	27205	2.0	0.15	(3.9)	50	> 8.7	(60)	8.1	(330)	< 0.125 4
	BECO PR 1	27200	4.0	0.17	(4.3)	48	> 6.5	(45)	58.4	(2381)	< 0.125 ⁴
BECO PR ENDURA S	BECO PR ENDURA S ²	29450	-	0.06	(1.5)	<1	> 58.0	(400)	18.9	(770)	< 0.08 4

¹ 100 kPa = 1 bar |² Without the addition of mineral components |³ Determination after rinsing with 6.6 gal/sqm (251/m²) WFI (Water for Injection) |⁴ Determination after rinsing with 13.2 gal/sqm (501/m²) WFI



Retention ranges and filtration tasks



Ordering information

BECOPAD depth filter sheets

Note for orders:

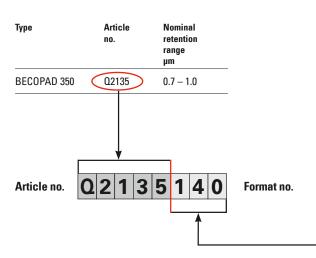
Our 8-digit order no. consists of two parts:

- 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



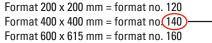
BECO depth filter sheets

Note for orders:

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

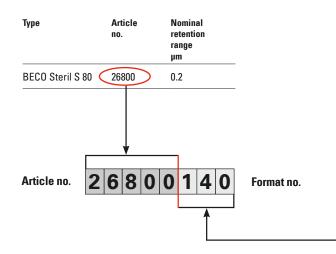
- the 5-digit article no. and
- the 3-digit format no.

Examples for the format no. code:



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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Brazil Rua Clark, 2061 - Macuco 13279-400 - Valinhos, Brazil Tel: +55 11 3616-8400

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