

## Depth Filtration

### BECO SELECT A – Depth Filter Sheet Range

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09/2007

#### For the Filtration of Cognac, Whisky, Brandy, and other High Quality Spirits

**BECO SELECT A depth filter sheets are used for the demanding filtration of high quality spirits such as cognac, armagnac, barrel-matured brandy and whisky. Also in the filtration of spirits based on pomaceus fruit, stone fruit, soft fruit, yeast and grappes, juniper berries (Gin, Genever), grain (Aquavit) excellent filtration results are achieved. The product range is graded from coarse particle separation to fine filtration and enables accurate adaptation to the requirements of spirit filtration.**

The specific advantages of BECO SELECT A depth filter sheets:

- ▶ Low content of calcium, magnesium and iron ions to avoid secondary hazes
- ▶ Colour-preserving filtration through minimum colour adsorption in the depth filter sheet
- ▶ Selective separation of long-chain fatty acid esters
- ▶ Reliable retention of the components to be separated through ideal pore structure
- ▶ High clarification effect through the use of high-quality raw materials
- ▶ Economic service life through high dirt holding capacity
- ▶ Comprehensive quality assurance for all raw and auxiliary materials and intense in-process controls ensure consistent quality of the finished products

#### Fine filtration of very fine haze substances

BECO SELECT A 15, BECO SELECT A 20

BECO depth filter sheets for achieving a high clarifying level. This depth filter sheet type reliably retains very fine particles and higher fatty acids. This makes them particularly suitable for haze-free storage and filling.

#### Clarification filtration

BECO SELECT A 40

BECO depth filter sheets for clarification filtration and for the separation of medium-strong haze. This depth filter sheet type has a high dirt holding capacity and is particularly suitable for the filtration of spirits with a high fusel oil content.

#### Coarse filtration

BECO SELECT A 80

BECO depth filter sheets for pre-filtration of spirits. This depth filter sheet type is particularly suitable for the first filtration after cool storage or maturation in barrel and for the separation of coarse particles.

#### Physical Data

##### Selection Guidelines

Type	Article no.	Nominal retention rate µm	Thickness mm (in)	Ash content %	Bursting strength wet KPa (psi)	Water permeability at $\Delta p = 100 \text{ kPa}$ $\text{l m}^{-2} \text{ min}^{-1}$
SELECT A 15	27615	0.6	4.4 (0.17)	53	> 40 (5.8)	50
SELECT A 20	27620	0.8	4.4 (0.17)	43	> 40 (5.8)	160
SELECT A 40	27640	2.5	4.4 (0.17)	43	> 40 (5.8)	210
SELECT A 80	27680	27.0	2.9 (0.11)	< 1	> 110 (15.94)	10120

## Components

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BECO depth filter sheets are made from particularly pure natural materials and synthetic resin based on polyamine or polyamide. The following materials are used: finely fibrillated cellulose fibers from deciduous and coniferous trees, kieselguhr and perlite in different quantities.

## Instructions for Correct Use

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Depth filter sheets require careful handling when inserting them into the plate and frame filter. Avoid banging, bending, and rubbing the sheets. Do not use damaged depth filter sheets.

### Inserting the Sheets

The smooth discharge side of the depth filter sheets is stamped with type and production numbers. The discharge side must always be placed against the clear filtrate plate.

## Sanitizing and Sterilizing (optional)

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The wetted BECO SELECT® A depth filter sheets may be sterilized with hot water or saturated steam up to a maximum temperature of **121 °C (250 °F)**. The pressed filter package should be loosened slightly. Make sure to sterilize the entire filter system thoroughly. Do not apply final pressure until after the filter package has cooled down.

### Sterilizing with hot water:

The flow velocity should at least equal the filtration capacity.

Water quality:	The water should be softened and free of impurities.
Temperature:	> 85 °C (185 °F)
Duration:	25 minutes after the temperature has reached 85 °C (185 °F) at all valves.
Pressure:	At least 0.5 bars (7.2 psi) at the filter outlet.

### Sterilizing with steam:

Steam quality:	The steam must be free of foreign particles and impurities.
Temperature:	<b>Max. 121 °C (250 °F) (saturated steam)</b>
Duration:	Approx. 20 minutes after steam escapes from all filter valves.
Rinsing:	After sterilizing with 50 l/m <sup>2</sup> at 1.25 times the flow rate.

## Filter Preparation and Filtration

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Unless already completed after sterilization, we recommend pre-rinsing the closed filter with 50 liters (13.2 gal) of water per square meter at 1.25 times the flow rate prior to the first depth filtration. Depending on the application, this usually corresponds to a rinsing time of 10 - 20 minutes. Test the entire filter for leakage at maximum operating pressure.

High-proof alcohol solutions and chemical products that do not allow pre-rinsing with water, should be circulated for 10 to 20 minutes. Dispose of the rinsing solution after rinsing.

## Safety

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If used properly no negative effects are known.

An EC safety data sheet is available upon request.

## Disposal

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Due to their composition, BECO depth filter sheets are bio-degradable. Applicable official regulations must be adhered to with regard to filter sheet disposal.

## Storage

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Depth filters consist of strongly adsorbing materials. Careful handling is necessary during transportation and storage. Depth filters must be stored in a dry and smell-free place that is well aerated.

Do not expose the depth filter sheets in direct sun light.

BECO depth filter sheets are intended for immediate use and should be used within 36 months after delivery.

## Available Formats

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

HS customs tariff number: 48 12 00 00

## **Quality Assurance according to DIN EN ISO 9001:2000**

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The comprehensive Quality-Management-System of BEGEROW has been certified from DQS according to DIN EN ISO 9001:2000.

The certification confirms the functioning of the total system of Quality Assurance from product development through contract controls, choice of suppliers as well as acceptance controls, production and final examination all in the way to storage and dispatch.

Extensive quality assurance measures comprise the adherence to technical criteria regarding the function as well as the confirmation of chemical purity and quality recognized as safe under the German law governing the production of foodstuffs and beverages. BECO depth filter sheets meet the requirements of recommendation XXXVI/1 regarding the LFGB (German Food, Commodity and Feed Act) by the BfR (Federal Institute of Risk Assessment), and the test criteria of FDA directive CFR 21 § 177.2260.



Reg. No. 000480 QM

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