

## Depth Filtration

### Depth Filter Sheets - EUROPOR® - K Range

EUROPOR® depth filter sheets were developed to meet exceeding requirements in the filtration of beverages. The depth filter sheets of this series cover a complete range of filtration grades from 4.5 µm to 0.2 µm nominal rating. In this way filtration applications for which a particular retention efficiency is required can be selected.

The specific advantages of the EUROPOR® - K Range:

- ▶ Reliable retention of undesirable components thanks to an ideal pore structure.
- ▶ Excellent clarifying efficiency because of high-quality raw materials.
- ▶ Economical filter lifetimes through high dirt holding capacity.
- ▶ Comprehensive quality control of all raw materials and auxiliary materials.
- ▶ In-process inspections to guarantee consistent quality.

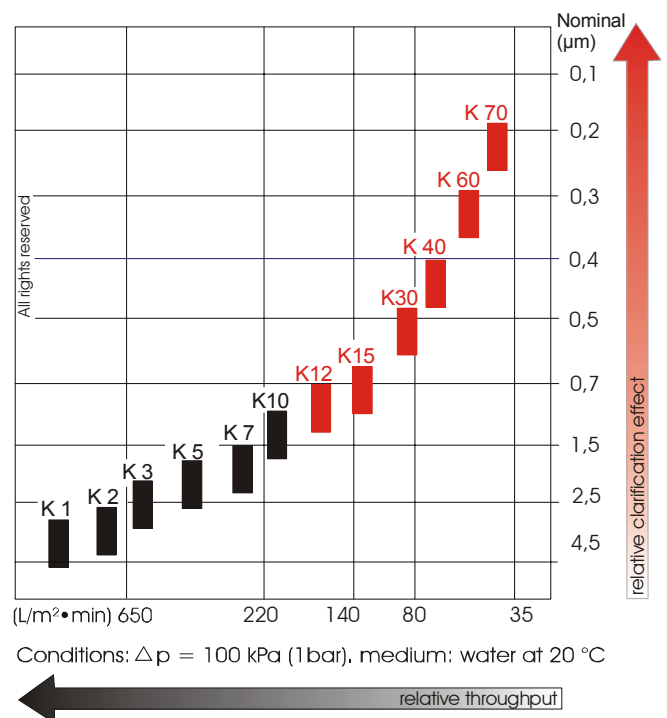
### Germ removing

EUROPOR® K 70, K 60, K 40

EUROPOR® depth filter sheets with a high contaminant retention capacity. These filter sheet types are particularly suitable for cold sterile bottling or storage of beverages. The excellent retention capacity is ensured by the fine pore structure of EUROPOR® depth filter sheets combined with adsorptive electrokinetic properties.

Thanks to their high retention capacity for colloidal substances these filter sheet types do excellent service as a pre-filter before membrane filtration.

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### Fine filtration, germ reduction

EUROPOR® K 30, K 15, K 12, K 10, K 7, K 5

EUROPOR® depth filter sheets for achieving a high grade of clarification. These sheets retain ultrafine particles reliably and have a germ-reducing effect. They are therefore particularly suitable for haze-free filtering of beverages prior to storage and bottling.

### Coarse filtration

EUROPOR® K 3, K 2, K 1

Depth filter sheets with a large-volume pore structure. These sheets have a high dirt holding capacity for particles and are especially suitable for clarifying filtration applications.

## Components

EUROPOR® depth filter sheets are made from pure natural materials and cationic resin. They contain varying quantities of finely fibrillated cellulose fibres of hardwood and softwood, kieselguhr and perlite.

## Instructions for correct use

When inserting the depth filter sheets into the sheet filters, handle carefully. Avoid knocks, distortion or abrasion. Never use a damaged filter sheet.

### Insertion of the depth filter sheets:

The outlet side of depth filter sheets is smooth. This side must always be placed against the clear filtrate discharge) plate.

### Filter preparation:

Prior to the first filtration, rinse the packed filter with drinking water depending on the filtration task, for 10 to 20 minutes in direction of flow. The flow rate for rinsing is 1.25 times that of the recommended filtration speed. Check packed and closed filter for leaks at maximum operating pressure.

## Sterilization

EUROPOR® filter sheets may be sterilized with saturated steam of 125 °C or hot water. The pressed packed filter has to be slightly loosened. Make sure to sterilize the entire filter system thoroughly. Final pressure should be applied to the filter package once the entire filter has cooled down.

### Sterilization with steam:

Steam quality: Steam has to be free of foreign particles and impurities  
Temperature: max. 125 °C (saturated steam)  
Duration: approx. 20 minutes after steam has exited from all filter valves

### Sterilization with hot water:

Water quality: The water should be softened and be free of impurities.  
Temperature: > 85 °C  
Duration: 25 minutes, with the temperature achieving 85 °C at the valves  
Pressure: adjust to at least 0.5 bar at the filter outlet

### Important notice:

**All vent and discharge valves must be slightly opened for optimal sterilization effect and to avoid the steam shock.**

## Regeneration/back-washing

The high capacity of the EUROPOR® depth filter sheets can be used to a greater or lesser degree for filtration in damp environments via easy back-washing using softened water. In this way they contribute considerably to the reduction of filtration cost.

Proceed as follows in the regeneration:

Cold rinsing: in direction of filtration approx. 5 - 10 minutes  
Temperature: 15 °C - 20 °C  
Duration: approx. 5 minutes  
Hot rinsing: against direction of filtration  
Temperature: 60 °C - 80 °C  
Duration: approx. 10 minutes

## Safety

If used properly no negative effects are known. Safety regulations according to DIN 52 900. An EC safety data sheet is available upon request.

## Waste disposal

EUROPOR® depth filters can be composted due to their composition. Please observe the current valid official directives relation to filtration products.

## Storage

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

EUROPOR® depth filter sheets are intended for immediate use and should be used within 18 months after delivery.

## Forms of supply

EUROPOR® depth filters can be supplied for all current filter sizes, square or round.

HS customs tariff number: 4812 00 00

## Verified quality

The laboratory inspects EUROPOR® depth filter sheets for constant high quality. These inspections comprehend technical parameters as well as chemical purity and the quality generally recognized as safe.



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