



## Mini Kleenpak™ capsule with Supor® EKV membrane

### Description

Pall® Mini **Kleenpak** capsules are designed for small scale critical applications due to the minimum hold-up volume of 6 mL. They are particularly well suited for the filtration of high value/low volume products and for scaling up or scaling down activities.

These capsules contain the **Supor** EKV polyethersulfone (PES) membrane which combines the latest technology of sterilizing grade filter membrane with our asymmetric machV technology for optimal protection of the retentive layer. This provides very high assurance of removal efficiency and consistency with extraordinary high flow rates and long life time due to the structure. It allows you to have a very compact filter system and to reduce filtration costs considerably.

Pall's range of **Supor** PES membranes are suited for fluids over a wide pH range including buffers, biological fluids, tissue culture media, ophthalmic products and many others.

### Key Features

- Low area pleated membrane capsule filter (220 cm<sup>2</sup> (0.24 ft<sup>2</sup>) filter area)
- Very low hold-up volume – typically 6 mL
- Available pre-sterilized by gamma irradiation or suitable for autoclaving or gamma irradiation
- Easily wettable
- Built-in prefiltration with **Supor** machV asymmetric technology for long life and low filtration costs
- Fully integrity testable using the Forward Flow test



### High Quality Standards

- Validated in liquids with *Brevundimonas diminuta* (ATCC 19146) at a challenge level of 10<sup>7</sup> cfu/cm<sup>2</sup> of filter area
- 100% integrity tested during manufacturing
- Identified by a lot number and a unique serial number for complete traceability of manufacturing history and for user's traceability systems
- Supplied with a Certificate of Test
- Comprehensive validation guide available
- Manufactured under a Quality Management System certified to ISO 9000
- Meets USP Biological Reactivity Tests *in vivo*, in accordance with USP Class VI plastics at 121°C (250°F)

### Supor EKV filters meet the following standards:

- Cleanliness per USP particulates in injectables after flushing
- Non-Pyrogenic per USP Bacterial Endotoxins (0.25 EU/mL) after flushing
- USP limits for TOC and conductivity under purified water after flushing

## Materials of Construction

Membrane	Hydrophilic polyethersulfone
Support and Drainage Layers	Polypropylene
Capsule	Polypropylene
Vent	Polypropylene
Sealing Technology	Thermal bonding
Filling Bell (not shown in drawing)	Polycarbonate

## Typical Effective Surface Area

220 cm<sup>2</sup> (0.24 ft<sup>2</sup>)

## Operating Parameters<sup>(1)</sup>

Max Operating Pressures	4.1 bar (60 psi) at 30°C (86°F)
Max Operating Temperature	80°C (176°F) at 2.1 bar (30 psi)

<sup>(1)</sup> In compatible fluids which do not soften, swell or adversely affect the filter or its materials of construction

## Sterilization

Autoclave*	3 x 1 hour cycles at 135°C (284°F)
Gamma Irradiation**	Maximum 50 kGy

\* Please refer to service instructions, or contact Pall for more details

\*\* G option only

Warning: Pre-sterilized units should not be resterilized.

This product must not be sterilized *in-situ* by passing steam through under pressure. Do not autoclave after use if heat labile contaminants are present on the filter.

Filters must be wetted prior to sterilization.

## Typical Extractables

< 1 mg in water at 20°C (68°F) for non irradiated filter

≤ 5 mg in water at 20°C (68°F) for gamma irradiated filter

## Ordering Information

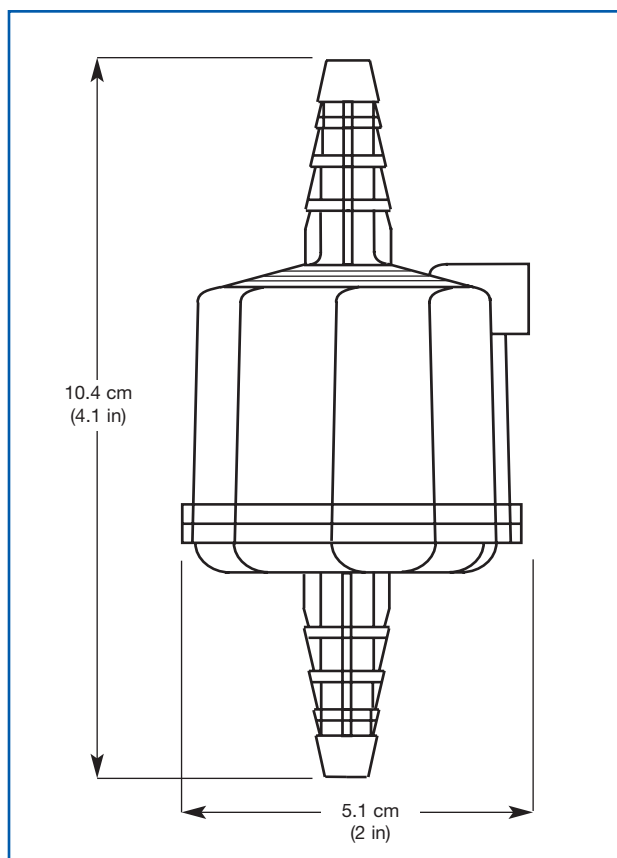
Part Number***	Description
KA02EKVP2G	Suitable for autoclaving or gamma irradiation with stepped hosebarb with ¼" to ½" connections and filling bell****
KA02EKVP2S	Pre-sterilized with stepped hosebarb with ¼" to ½" connections and filling bell****

\*\*\* 3 filters per box

\*\*\*\* Filling bell is removable for in-line use

1 bar = 100 KPa

## Dimensions



## Water Flow vs Differential Pressure

350 mL/min at 100 mbar (1.4 psi) differential pressure



Life Sciences

New York - USA

+1 516 484 5400 phone

+1 516 801 9548 fax

pharmafilter@pall.com e-mail

Portsmouth - Europe

+44 (0)23 9230 3303 phone

+44 (0)23 9230 2506 fax

BioPharmUK@europe.pall.com e-mail

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