



Mini Kleenpak™ Capsules with Fluorodyne® EX Grade EDT Membrane



Unrivalled Mycoplasma Control with Superior Value

Fluorodyne EX Grade EDT Membrane Filtration Technology

Mini Kleenpak capsules with Fluorodyne EX Grade EDT membrane are high capacity, 0.1 micron rated sterilizing grade filters, suitable for filter-sizing studies or the processing of small volumes (up to 30L) of pharmaceutical GMP process streams.

Applications / Use

- ▶ Qualifying filter membrane performance on the bench before commitment to a full-scale manufacturing process
- ▶ Filtration of cell culture media
- ▶ Enhanced sterile filtration of biological fluids

Benefit from using Mini Kleenpak capsules with Fluorodyne EX EDT membrane in your process

- ▶ **Superior value** – An asymmetric, high capacity MachV polyethersulfone (PES) membrane combined with twin polyvinylidene fluoride (PVDF) membrane layers downstream ensures excellent throughput performance.
- ▶ **Economical scale-up** – For large production volumes, scale up from Mini Kleenpak capsules to high-area AB-style filter cartridges and Kleenpak Nova filter capsules. These high area formats feature a unique, Pall-patented laid over pleat membrane pleating construction coupled with a narrow core design for maximum throughput capacity and rapid fluid processing when effective time and cost control is paramount.
- ▶ **Safety** – Validated for the removal of *Brevundimonas diminuta* (ATCC® 19146) and *Acholeplasma laidlawii* (ATCC® 23206) (see removal ratings on reverse). They assure maximum safety in critical sterilizing filtration applications where there is also a need for mycoplasma control.

Specifications

Materials of Construction

Filter Membrane	Pre-filter layer: Single layer hydrophilic asymmetric PES
	Final filter layers: Dual layer hydrophilic PVDF
Support/Drainage	Polypropylene
Capsule Shell	Polypropylene
Core and Endcaps	Polypropylene
Filling Bell	Polycarbonate
Sealing Technology	Thermal bonding without adhesives

Operating Parameters¹

Maximum Operating Temperature	40 °C
Maximum Operating Pressure	4.1 bar (60 psi) at 38 °C

¹ In compatible fluids which do not soften, swell or adversely affect the filter or its materials of construction

Sterilization Conditions²

Autoclavable 'G' option	3 x 30 minutes up to 135 °C
Gamma-irradiatable 'G' option	Maximum of 50 kGy

² • Pre-sterilized 'S' option Mini Kleenpak capsules must not be re-sterilized.
• Mini Kleenpak capsules must not be sterilized in-situ by passing steam under pressure

Typical Extractables in Water at 20 °C

< 5 mg NVR

Nominal Dimensions

Maximum Diameter Including valves	68 mm (2.7 in.)
Length – Code 2	105 mm (4.1 in.)
Length – Code 8	73 mm (2.9 in.)

Ordering Information⁴

Pall Part Number: KA02EDTP

Code	Connection Options	Code	Shipping Format
2	¼ – ½ in. (6 – 13 mm) hosebarb	G	Non-sterile gamma irradiatable/ autoclavable
8	½ – ¾ in. (13 – 19 mm) sanitary flange	S ⁵	Pre-sterilized using gamma irradiation

⁴ 3 filters per box

⁵ 'S' option with Code 2 connection is provided with filling bell on outlet. It is removable for in-line use



Life Sciences

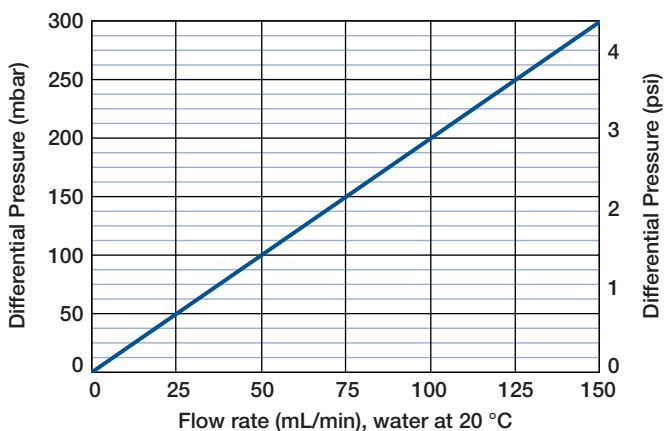
United States

1.800.717.7255 toll free (USA)
1.516.484.5400 phone
1.516.801.9548 fax
biopharm@pall.com e-mail

Europe

+41 (0)26 350 53 00 phone
+41 (0)26 350 53 53 fax
LifeSciences.EU@pall.com e-mail

Typical Liquid Flow vs. Differential Pressure



Nominal Effective Filter Area (EFA)

200 cm² (0.22 ft²)

Removal Rating³

0.1 µm sterilizing grade

Sterile effluent when challenged with 10⁷/cm² *Brevundimonas diminuta*. Zero recovery for *Acholeplasma laidlawii* when challenged with 2 x 10⁹ organisms per capsule (10⁷/cm²) consistent with the titer reduction claim for this organism of > 10¹⁰ for the AB style and Kleenpak Nova configurations. Please contact Pall for integrity test values.



Visit us on the Web at www.pall.com/biopharm
e-mail us at biopharm@pall.com

International Offices

Pall Corporation has offices and plants throughout the world in locations such as: Argentina, Australia, Austria, Belgium, Brazil, Canada, China, France, Germany, India, Indonesia, Ireland, Italy, Japan, Korea, Malaysia, Mexico, the Netherlands, New Zealand, Norway, Poland, Puerto Rico, Russia, Singapore, South Africa, Spain, Sweden, Switzerland, Taiwan, Thailand, the United Kingdom, the United States, and Venezuela. Distributors in all major industrial areas of the world.

The information provided in this literature was reviewed for accuracy at the time of publication. Product data may be subject to change without notice. For current information consult your local Pall distributor or contact Pall directly.

© 2011, Pall Corporation. Pall, , Kleenpak and Fluorodyne are trademarks of Pall Corporation. ® indicates a trademark registered in the USA. Filtration. Separation. Solution.™ is a service mark of Pall Corporation. *ATCC is a registered trademark of American Type Culture Collection.