

# STERYKLEAR-KST

## EXTENDED SURFACE AREA TECHNOLOGY or “SE-TECH” design.

**STERYKLEAR** has been developed by applying Fluid Dynamic Analysis to the flow patterns through different filter media, including polymeric membranes. As a result Bea Technologies has achieved significant improvements in the layering of the filter media leading to better filtration results from the membranes.

This new “SE-TECH” design optimises the flow distribution between the filter media and the internal core to avoid restrictions and to exploit the full area of the filter element to generate higher throughput and to increase the life of the filter in-line.

The extended surface area technology has been engineered so that filtration cost is competitive with other sterilization techniques but with the great advantage of maintaining and preserving the essential characteristics of the filtered liquids.

**STERYKLEAR** The construction materials are chemically and biologically inert according to F.D.A. and E.E.C. directives. Manufacturing is in a CLEAN ROOM, class 10,000 (M4) according to cGMP guidelines, assuring filter elements of high quality. Each membrane cartridge is subjected to a specific integrity test and it is possible to verify the integrity of STERYKLEAR cartridges IN SITU before and after the filtration process.

**APPLICATION:** Pharma, Food & Beverage

## FILTRATION RATING

STERYKLEAR membrane cartridges assure retention of microorganisms listed in the following table (for 10” cartridges):

Filtration Grade	Filtration Rating	Microorganisms used for microbiological test
FY	0.2 µm	≥ 10 <sup>10</sup> Brevundimonas diminuta
FT	0.45 µm	≥ 10 <sup>10</sup> Serratia marcescens
FK	0.65 µm	≥ 10 <sup>10</sup> Leuconostoc oenos



## MATERIALS OF CONSTRUCTION

Filter media:	Polyethersulfone
Upstream drainage:	Polyester
Downstream drainage:	Polyester
Core and Cage:	Polypropylene
End Caps:	Polypropylene

## MAXIMUM OPERATING CONDITIONS

Maximum continuous temperature:	65° C
Steam sterilization:	repeatedly sterilizable at 121° C with cycles of 30' or at 125° C with cycles of 20'
Sanitization procedures:	can be sanitized by chemical agents or hot water 80° C
Pressure drop recommended for replacement:	2.0 bar @ 25° C
Maximum pressure drop:	5.0 bar @ 25° C

## BIOLOGICAL SAFETY

Component materials meet the USP specifications for Class VI-121° C Biological Tests for plastics

### . EXTRACTABLE SUBSTANCES

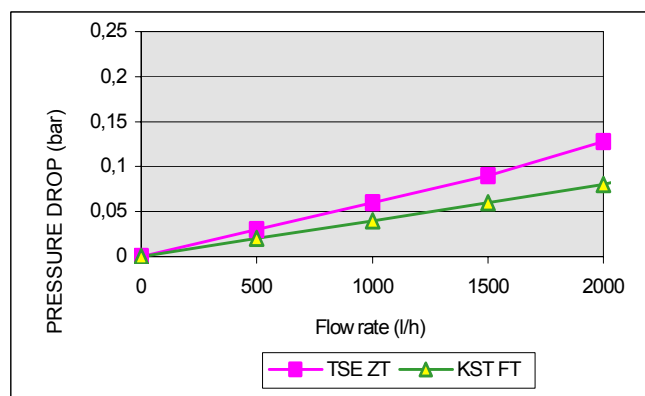
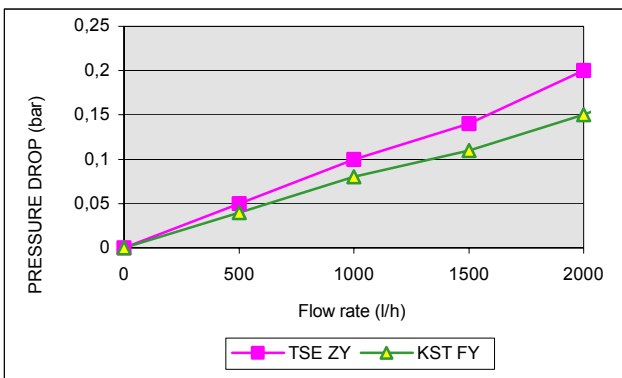
STERYKLEAR filter cartridges meet the current USP XXV requirements.

### GLOBAL MIGRATION TEST

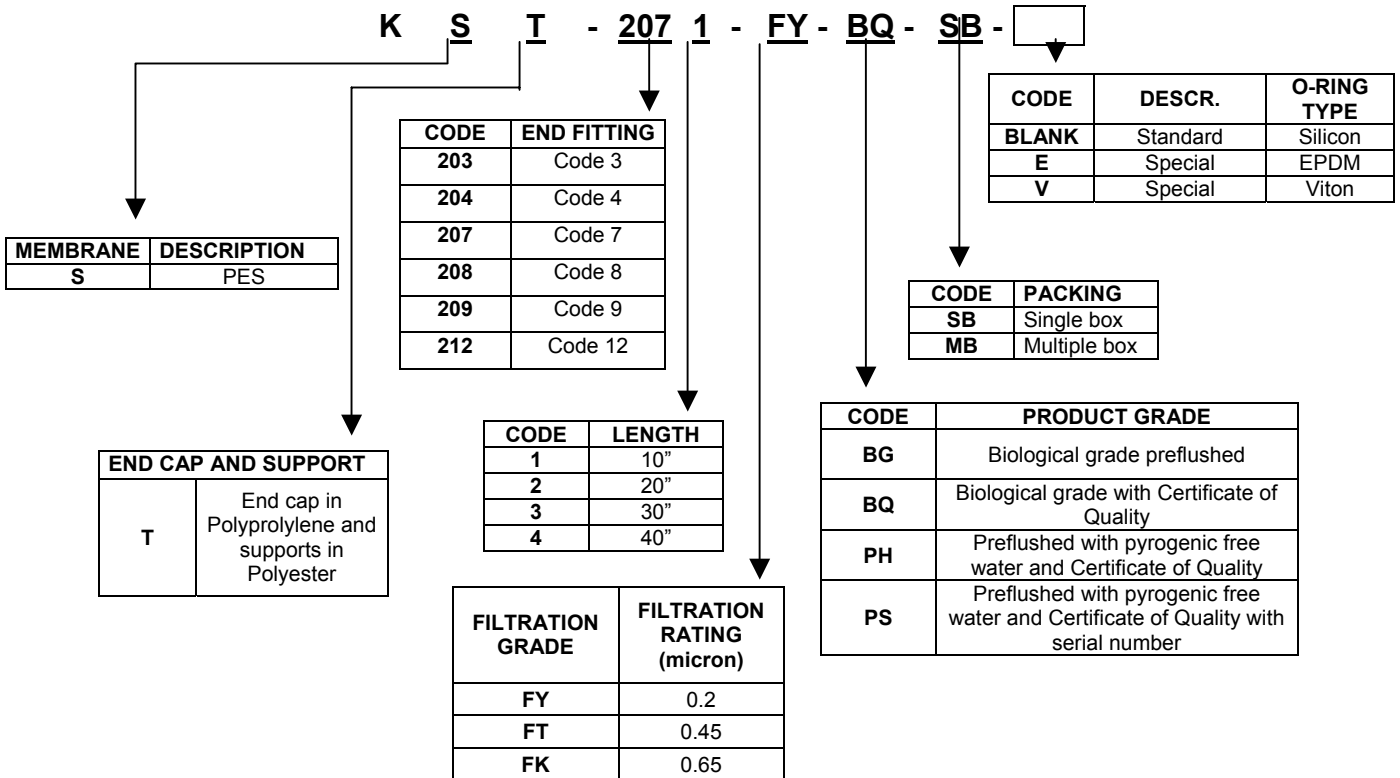
STERYKLEAR filter cartridges meet European directives 82/711/EEC, 85/572/EEC, 80/128/EEC, 92/39/EEC, 93/8/EEC, 93/9/EEC, 2002/72/EC, 2004/19/EC "Global migration test for extractables".

Filtration Grade	Liquid Filtration Rating micron	INTEGRITY TEST at (20-25° C)	
		Test Pressure bar	Diffusion Flow Test for 10" cartridge cc/min
FY	0.2	2.7	≤ 26
FT	0.45	1.7	≤ 16
FK	0.65	1.1	≤ 25

### WATER FLOW RATE CURVES FOR 10" ELEMENT



### ORDERING INFORMATION



DS-KST-563-UK-05/2

