

## STERYFLUS MINI CARTRIDGES

**STERYFLUS** mini cartridges are an important advance in membrane filter cartridge technology. These mini cartridges are specifically designed for sterile filtration in pharmaceutical and food & beverage applications. The filter membrane is a **hydrophilic PES (Polyethersulphone)** with liquid absolute filtration rating of **0.2** and **0.45** micron, pleated with upstream and downstream support layers in polyester. All construction materials are chemically and biologically inert according to **FDA, USP** and **EC** directives. **STERYFLUS** are manufactured in Clean Rooms. Extensive testing is conducted to assure filter elements of highest quality. Each mini cartridge is subjected to integrity test before releasing from production. Furthermore, it is possible for customers to re-verify the integrity of **STERYFLUS** cartridges **IN SITU**. **STERYFLUS** mini cartridges have a **Validation Guide** which is available upon request.



### CONSTRUCTION MATERIALS

<b>Filter media:</b>	PES membrane
<b>Upstream drainage:</b>	Nonwoven polyester
<b>Downstream drainage:</b>	Nonwoven polyester
<b>Core &amp; Cage:</b>	Moulded polypropylene
<b>End caps:</b>	Moulded polypropylene/Polyester

### DIMENSIONS

External diameter	56 mm
Length	135 mm (size 1001)
Other lengths available on request	

### OPERATING SPECIFICATIONS

- max continuous temperature:	65 ° C
- steam sterilization cumulative time:	TSP : 20h at 125°C or 40h at 121°C TSE : 13h at 125°C
- chemical sanitization:	compatible with standard chemical sanitising agents
- pressure drop recommended for replacement:	2,0 bar at 25 °C
- max pressure drop:	5,0 bar at 25 °C

### FILTRATION RATING

FILTRATION CLASS	LIQUID ABSOLUTE FILTRATION RATING
ZYY	0.2 µm double layer membrane
ZY	0.2 µm single layer membrane
ZT	0.45 single layer membrane
ZK	0.65 single layer membrane

### WATER FLOW RATE

FILTRATION CLASS	l/h (ΔP = 0.1 bar)
ZYY	250
ZY	400
ZT	600
ZK	800

### INTEGRITY TEST

FILTRATION CLASS	ACCEPTABLE LIMIT FOR DIFFUSION FLOW TEST (ml/min)*
ZYY	≤ 8 at 2.8 bar
ZY	≤ 8 at 2.8 bar
ZT	≤ 6.5 at 1.7 bar
ZK	≤ 10 at 1.7 bar

(\*)The DIFFUSION FLOW TEST is performed using water as wetting liquid

## BACTERIAL RETENTION

**STERYFLUS** membrane cartridges are validated for retention of the microorganisms reported in the Table according to ASTM F838-05 ( $\geq 10^7$  CFU/cm<sup>2</sup> effective filtration area).

FILTRATION CLASS	MICROORGANISM USED FOR MICROBIOLOGICAL TEST
ZY, ZYY	<i>Brevundimonas diminuta</i> in liquid
ZT	<i>Serratia marcescens</i> in liquid

## GLOBAL MIGRATION TEST

**STERYFLUS** filter elements materials meet directive 2002/72/EC and its amendments, regulations EC 1935/2004 and 1895/2005.

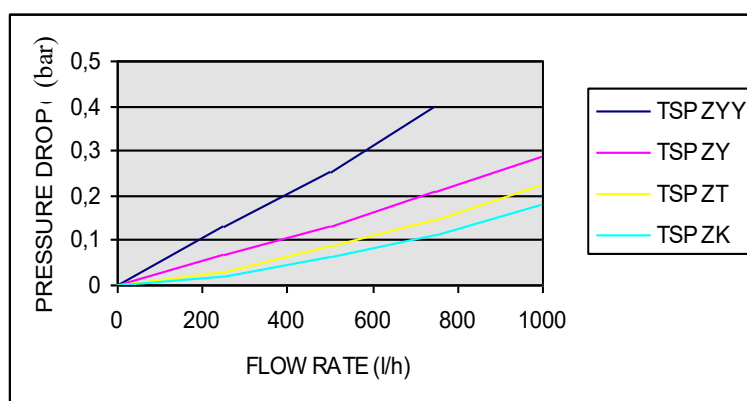
## TOXICITY

Component materials meet the **USP XXV class VI Biological Test for Plastics**.  
Test data is available upon request.

## EXTRACTABLE SUBSTANCES

**STERYFLUS** cartridges meet **USP** requirements.

## WATER FLOW RATE CURVES



## STERYFLUS MINI CARTRIDGES SELECTION CODE

TSP — 100 — 1 — ZT — -

END CAPS MATERIAL	CODE
Polypropylene	P
Polyester	E

END CAPS	CONFIGURATION
1001	100

NOMINAL LENGTH	INDEX
(135 mm)	1

CONFIGURATION	GASKET		
100	SPECIAL	EPDM	E
	STANDARD	SILICONE	-
EXTRA	FOR APPLICATIONS WITH SOLVENTS, GASKETS IN VITON AND TEFLON ARE AVAILABLE UPON REQUEST.		

ABSOLUTE FILTRATION RATING (micron)	FILTRATION CLASS
0.2	ZYY
0.2	ZY
0.45	ZT
0.65	ZK

## TECHNICAL SUPPORT

Bea Technologies S.p.a manufactures a broad range of filter elements and systems that are used with confidence and satisfaction by customers worldwide in beverage, food and many other demanding industries. The highly experienced team of technical experts at Bea Technologies S.p.a is available to help customers select the best performing and most cost effective filter for particular application.



Bea Technologies Spa Via Newton, 4 - 20016 Pero (Milano) ITALY  
Tel +39 02 339271 FAX +39 02 3390713 e-mail: [info@bea-italy.com](mailto:info@bea-italy.com)  
web: [www.bea-italy.com](http://www.bea-italy.com)