

# **STERYFLON**

- Intrinsecally Hydrophobic PTFE membrane
- High permeability versus gas
- Thermic cycles resistant
- Repeatedly steamable in situ or in autoclave
- Thermowelded construction
- FDA-listed materials per CFR21
- Bio-Safety per USP-Plastics
- Validation Guide available on request

STERYFLON is a filter element designed, manufactured and submitted to severe controls for applications in processes where the effluent is required to be free from particellar and biological contaminants.

The expanded PTFE membrane, intrinsically hydrophobic, allows superior performances both in gas filtration and non-acqueos liquid filtration. Bio-tech pharmaceutical, electronic, food & beverage industries can roly on a product with high standard of quality suitable to solve contamination issues on critical applications.

STERYFLON is manufactured within a controlled environment and each cartridge is integrity tested and is validated for bacterial retention correlated with microbiological challenge test. The retention is checked on regular sampling.

### MATERIALS OF CONSTRUCTION

| Filter media        | PTFE membrane |  |  |
|---------------------|---------------|--|--|
| Upstream supports   | polypropylene |  |  |
| Downstream supports | polypropylene |  |  |
| Internal Core       | polypropylene |  |  |
| External Cage       | polypropylene |  |  |
| End caps / Adapters | polypropylene |  |  |

#### **FOOD-SAFETY**

STERYFLON PTF filter elements meet regulation (EC) 1935/2004 for indirect food contact. BIO-SAFETY

Filter media and components pass USP Biological Reactivity and Chemical-Physical tests for CLASS VI plastics.

Specific for "PH" grade: the filter meets USP "Water for injection" requirements for particle release and the effluent is Non-Pyrogenic per USP Bacterial Endotoxins (< 0,25 EU/ml). QUALITY STANDARDS

Produced under a certified Quality System to guarantee traceability of manufacturing records and integrity testing results.

#### **OPERATING CONDITIONS**

| - max. continuous temperature of fermentation inlet and exhaust air                       | 70 °C   |
|---|---|
| <ul> <li>max. continuous temperature for vent filter in<br/>recirculation loop</li> </ul> | 83 °C   |
| - max. cumulative time of steam sterilization   | 150 hours at 140 °C with cycles of 30 minutes |
| - sanitization with chemicals   | can be sanitized by standard chemical agents  |
| - max. differential pressure  | 5,0 bar at 25 °C                              |
| - recommended change out differential pressure  | 2,0 bar at 25 °C                              |

| CODE  |           | E FILTRATION | 3) BACTERIAL RETENTION<br>>10 <sup>7</sup> CFU/cm <sup>2</sup> | ACCEPTABLE LIMIT FOR<br>INTEGRITY TEST |  |  |
|-------|-----------|--------------|--|--|--|--|
|       | IN LIQUID | IN DRY GAS   | >10 CF0/cm   |  |  |  |
| SH    | 0,1 µm    | < 0,01 µm    | Acheleoplasma laidlawii in liquid                              | 1) ≤ 10 ml/min @ 1,3 bar               |  |  |
| SL    | 0,2 µm    | < 0,01 µm    | Batteriofago T1 in aerosol                                     | 1) ≤ 10 ml/min @ 0,8 bar               |  |  |
| SLA   | 0,2 µm    | < 0,01 µm    | Brevundimonas diminuta in liquid                               | 2) ≤ 16 Nml/10min @ 2,5 bar            |  |  |
| Mahai |           |              |  |  |  |  |

Note:

1- The integrity is verified by DIFFUSION TEST using an aqueous solution of isopropyl alcohol

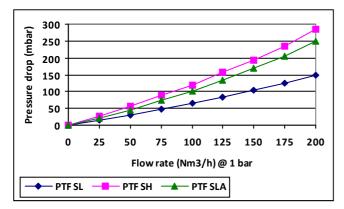
(IPA 60/40 V/V) as wetting liquid.

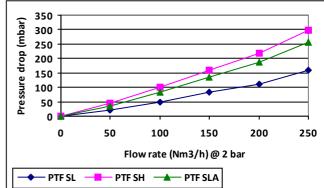
2- The integrity is verified by WATER FLOW INTRUSION TEST.

3- Cartridges are validated for retention of the microorganism reported in the table according to ASTM F838-05.



## **AIR FLOW RATE FOR 10" CARTRIDGE**





## **STERYFLON ORDERING INFORMATION**

| PTF -   | <u>207</u>   | <u>1</u> - | <u>SL</u>   | -        |          |         |         | -  | <u>PH</u>   |         |
|---|--------------|------------|---|----------|----------|---------|---------|--|---|---------|
| END FITTING   | CODE         |            | L   | I        |          |         |         |  |   |         |
| DOE: double open<br>end with flat gaskets   | 200          | FILT       | SOLUTE<br>TRATION<br>ATING  | CODE     |          | CODE    |         | CODE   | PRODUCT GRADE   |         |
|   |              |            | nicron  |          |          |         | No code | Biological Grade                                 |   |         |
| SOE: open end with (2) O-Ring 2.222.  | 203          |            | 0,1 SH *  |          | :        |         | РН      | Non-pyrogenic Grade.<br>Quality Certification in |   |         |
| Blind end with flat top.  |              |            | 0,2 <b>SL</b> <sup>3</sup>  |          | SL *     |         |         |  | the box   |         |
| SOE: open end with<br>(2) O-Ring 2.226 and<br>2 bayonet locks. Blind<br>end with fin. | 207          |            | 0,2 <b>S</b><br>* Integrity by IPA diffusion<br>** Integrity by water intru |          |          |         |         | рнн  | Non-pyrogenic Grade.<br>Quality Certification,<br>with serial number, in<br>the box |         |
| SOE: open end with<br>(2) O-Ring 2.222.<br>Blind end with fin.                        | 208          |            |   |          |          | CODE    |         | GASKI  | ETS   | END     |
| SOE: open end with  |              |            |   |          |          |         |         |  |   | FITTING |
| (2) O-Ring 2.222 and  | 212          | CODE       |   |          | I        | No code |         | Standard   | EPDM  | 200     |
| 3 bayonet locks. Blind end with fin.  |              |            | LENGT   | H        |          | т       | 0       | n request  | Teflon  | 200     |
|   | 05 5″ No cod |            | l <b>e</b> S  | Standard | Silicone | All the |         |  |   |         |
|   |              | 1          | 10″   |          |          | v       | 0       | n request  | Viton   | others  |
|   |              | 2          | 20″   |          |          | F       | 0       | n request  | FEP   | 207     |
|   |              | 3          | 30″   |          |          | -       | Ű       |  |   | 207     |
|   |              | 4          | 40″   |          |          |         |         |  |   |         |

Data contained in this bulletin are informative and subject to change without notice. User is responsible for determining whether the product is fit for particular purpose and suitable for User's method of 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 web: www.bea-italy.com