STERYFLON Plus MINI CARTRIDGES

- 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 Plus mini cartridges are an important advance in membrane filter cartridge technology. These mini cartridges are specifically designed for sterile filtration of compressed air and gas in pharmaceutical, bioengineering and food & beverage applications, and also for filtering high purity solvents in microelectronics. The filter media is a hydrophobic expanded PTFE with liquid absolute filtration rating of 0.1 and 0.2 micron, pleated with upstream and downstream support layers in nonwoven polypropylene.
STERYFLON Plus mini cartridge is manufactured within a controlled environment and each cartridge is integrity tested and validated for bacterial retention correlated with microbiological challenge test.
The retention is checked on regular sampling.

MATERIALS OF CONSTRUCTION

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

BIO-SAFETY

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

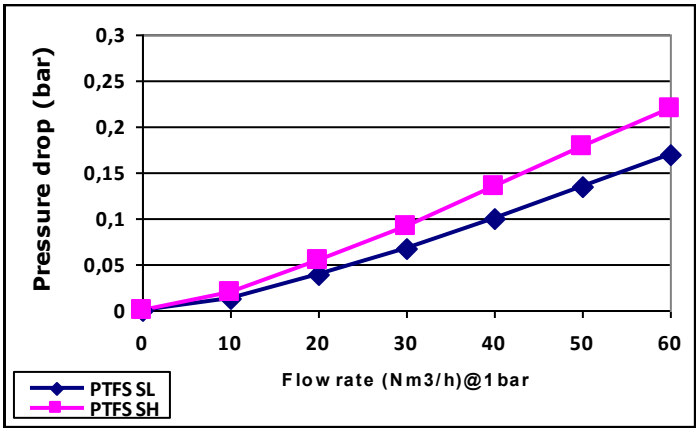
OPERATING CONDITIONS

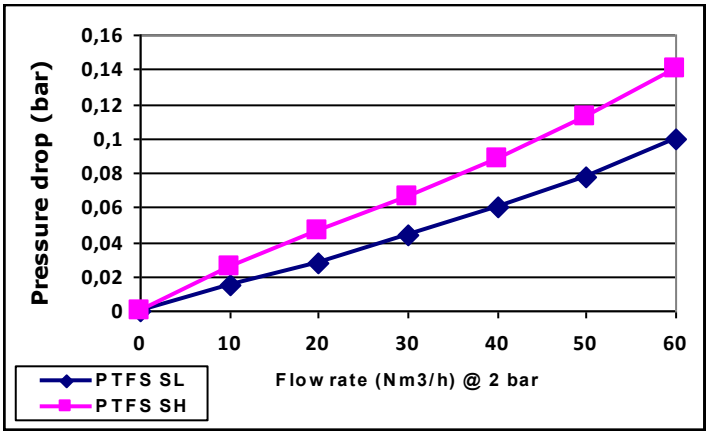
- max. continuous temperature in air	65 °C
- max. cumulative time of steam sterilization	150 hours at 140 °C with cycles of 30 minutes
- sanitization with chemicals	can be sanitized by standard chemical agents
- max. differential pressure	5,0 bar at 25 °C
- recommended change out differential pressure	2,0 bar at 25 °C

CODE	ABSOLUTE FILTRATION RATING		3) BACTERIAL RETENTION >10^7 CFU/cm^2	ACCEPTABLE LIMIT FOR INTEGRITY TEST
	IN LIQUID	IN DRY GAS		
SH	0,1 µm	< 0,01 µm	Acheleoplasma laidlawii in liquid	1) ≤ 13 ml/min @ 1,0 bar
SL	0,2 µm	< 0,01 µm	Batteriofago T1 in aerosol	1) ≤ 6 ml/min @ 0,8 bar
SLA	0,2 µm	< 0,01 µm	Brevundimonas diminuta in liquid	2) ≤ 8 Nml/10min @ 2,5 bar

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

AIR FLOW RATE CURVES





STERYFLON Plus MINI CARTRIDGES ORDERING INFORMATION

PTFS - 100 1 - SL - ☐ ☐

END FITTING	CODE
SOE: single open end with internal o-ring 2.116	**100**
SOE: single open end with threaded 1/2" (available only for code rating "SL")	**120**

ABSOLUTE FILTRATION RATING micron	CODE
0,1	**SH ***
0,2	**SL ***
0,2	**SLA ****

*Integrity by IPA diffusion test
**Integrity by water intrusion test

CODE	PRODUCT GRADE
No code	Biological Grade
PH	Non-pyrogenic Grade. Quality Certification in the box
PHH	Non-pyrogenic Grade. Quality Certification, with serial number, in the box

CODE	NOMINAL LENGTH
1	135 mm
05	142 mm Threaded end included

CODE	GASKETS	
No code	Standard	Silicone

DS-PTFS 1001-561-EN-23

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