

3M™ LifeASSURE™ BFS Series

PTFE Membrane Filter Cartridges

LifeASSURE BFS series filter cartridges are used in critical process stages where sterile air/gas filtration is required. This filter has also been designed for high-purity chemicals used in the electronics industry. The hydrophobic PTFE membrane in an all polypropylene construction provides excellent chemical resistance and high efficiency contaminant reduction for acids, bases, solvents and photo-chemicals used in the semiconductor industries. No pre-wetting is required for solvent based chemicals.

Applications

Microelectronics:

- High purity chemicals
- Organic solvents
- Photoresists
- Anti-reflective coatings
- Plating solutions

Food and beverage:

- Sterile vent filtration for fermentation applications
- Sterile air in-take for bioreactors
- Sterile compressed gas filtration
- Spirit particulate filtration

Features and benefits

PTFE and polypropylene materials of construction

- Excellent air flow for fermenter aeration and smaller, economical vent filter assemblies. LifeASSURE BFS series filter cartridges are qualified for quantitative retention of *Brevundimonas diminuta* (*B. diminuta*) at a minimum challenge of 10^7 organisms/cm² of effective filter surface area.
- Hydrophobic PTFE membrane that will not become blocked with moisture.
- Provides a low differential pressure to minimize bubble formation pressure applications.

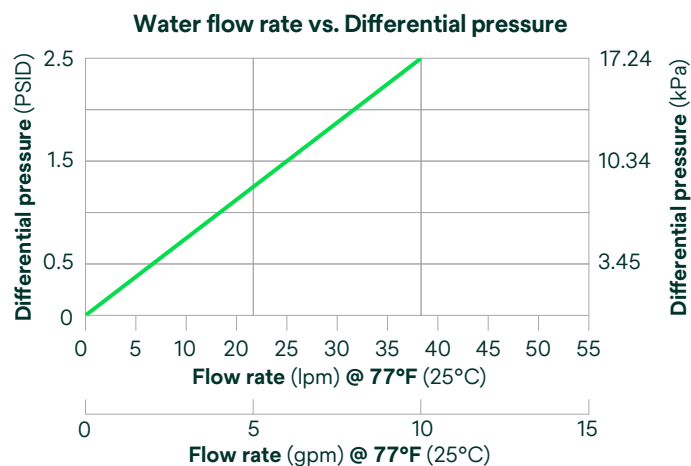


Chart 1: LifeASSURE BFS series filter flow rate vs. differential pressure

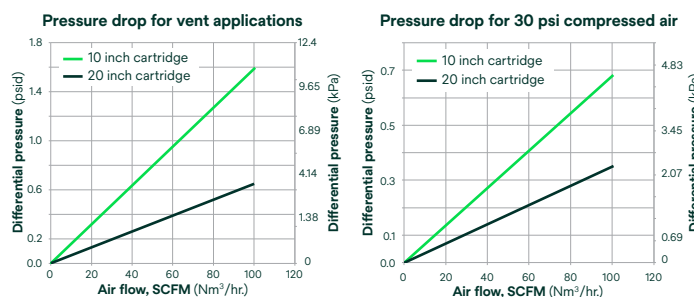


Chart 2: LifeASSURE™ BFS series air flow rate vs. differential pressure

Technical data and operating parameters

| | |
|--|---|
| Filter configuration | Cartridge 10" to 30" |
| Filter rating | 0.2 μm |
| Filtration surface area | 11 ft²* (1.02 m²) |
| Maximum differential pressure | |
| Forward pressure | 80 psid (551.6 kPa) @ 77°F (25°C) 25 psid (172.4 kPa) @ 176°F (80°C) |
| Reverse pressure | 65 psid (448.2 kPa) @ 77°F (25°C) |
| Maximum operating temperature | 176°F (80°C) |
| Integrity parameters - forward flow test - @ 16 psig (110 kPa)*** | |
| 60%/40% (v/v) IPA/water @ 77°F (25°C) and 1 atm: cc/min | ≤35.5** cc/min |
| Minimum bubble point | 16 (110.3) psig (kPa)**** |
| Water intrusion test – Maximum allowable flow at 40 psig (275.8 kPa) @ 68°F (20°C) and 1 atm | 0.59 cc/min |
| In situ steam conditions | Up to 293°F (145°C) |
| In use max temperature rating | 140°F (60°C) continuous, 176°F (80°C) short duration |

* Per 10" element

** Not for continuous compressed gas service.

*** NOTE: Wetting fluid should be maintained within +/- 2% v/v concentration and +/- 35.6°F (2°C) temperature.

**** Wet with 60%/40% (v/v) IPA/Water

Ordering guide

Table 1. For food and beverage applications (with reinforced stainless steel ring)

| Cartridge type | Grade | | Configuration | Length (inches) | | End modification | Gasket / O-ring material |
|----------------|-------|-------------|---------------|-----------------|-------------------|---|--------------------------|
| | Code | Rating (µm) | | | | | |
| BFS | 020 | 0.20 | A | 01 02 03 | 10" 20" 30" | B 226 O-ring and spear F 222 O-ring and flat cap | A Silicone |

Table 2. For microelectronics applications (with embedded polyethersulfone (PES) ring)

| Cartridge type | Grade | | Configuration | Length (inches) | | End modification | Gasket / O-ring material |
|----------------|-------|-------------|---------------|-----------------|-------------------|---|---|
| | Code | Rating (µm) | | | | | |
| BFS* | 020 | 0.20 | A | 01 02 03 | 10" 20" 30" | B 226 O-ring and spear C 222 O-ring and spear F 222 O-ring and flat cap | A1* Silicone B Fluorocarbon C EPR K PTFE Encapsulated Fluorocarbon |

*Part number example: **BFS020A03CA1**. The suffix "1" is intended for use in Microelectronics applications only. Please consult with your Solventum representative to determine the appropriate part number for your application.

For more information contact your Solventum sales representative.

Intended Use: 3M™ LifeASSURE™ BFS Series products are intended for use in industrial, chemical, electronics and food and beverage filtration applications of gases, aqueous and non-aqueous fluids in accordance with the product instructions, specifications and where materials of construction are compatible.

Certain LifeASSURE BFS products are compliant for use in Food and Beverage applications. For specific details regarding use or limitations for food contact applications please contact your Solventum representative for more information.

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3M Purification is now part of Solventum

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Compliance

| Standard |
|---|
| ISO 9001 Registered Quality System |
| 100% diffusion flow tested prior to shipment |
| Certain 3M LifeASSURE BFS products are compliant with: |
| • US FDA 21 CFR |
| • EU food contact regulation (EC) 1935/2004 |
| • other food contact regulations |
| Contact your Solventum representative for detailed declaration of compliance information for food contact applications. |