LEPURE

Datasheet

LeSiever® Capsule Filters with Hydrophobic PTFE

Hydrophobic polytetrafluoroethylene (PTFE), a highly versatile and chemically resistant material, which exhibits exceptional hydrophobic properties, repelling water and other aqueous liquids while allowing for the smooth passage of gases and air.

The hydrophobic nature of LeSiever® hydrophobic PTFE filter ensures unimpeded airflow, enabling high filtration rates and maintaining optimal ventilation. This makes it an ideal choice for applications such as venting, gas and air filtration, and sterile filtration, where blocking or clogging caused by liquid ingress may hinder performance.

With its broad chemical compatibility, LeSiever® hydrophobic PTFE filter can withstand exposure to a wide range of chemicals, solvents, and acids and boasts a long service life, offering extended periods of reliable filtration performance.

Typical applications

LeSiever® Hydrophobic PTFE Capsule
Filters offer distinct advantages in handling

- Non-aqueous products filtration
- Air and gas filtration
- Venting and degassing
- Chemical filtration
- Liquid filtration in Non-aqueous solutions
- Sterilizing filtration

Advantage

- Excellent hydrophobicity
- Low extractable and leachable
- Excellent chemical compatibility
- Reliable air flow
- Sterilizable and autoclavable
- Long service life and versatile applications
- Broad temperature and pH range
- 100% integrity tested during manufacture
- Available with a variety of connectors

Specification

LeSiever® Sterilizing-grade Hydrophobic PTFE capsule filters are available in 0.1 µm, 0.2 µm, 0.45 µm, 1.0 µm hdrophobic PTFE membrane, and multiple configurations that vary by filtration area and type of inlet/outlet connection.

- LeSiever® Capsule Filter with Hydrophobic PTFE

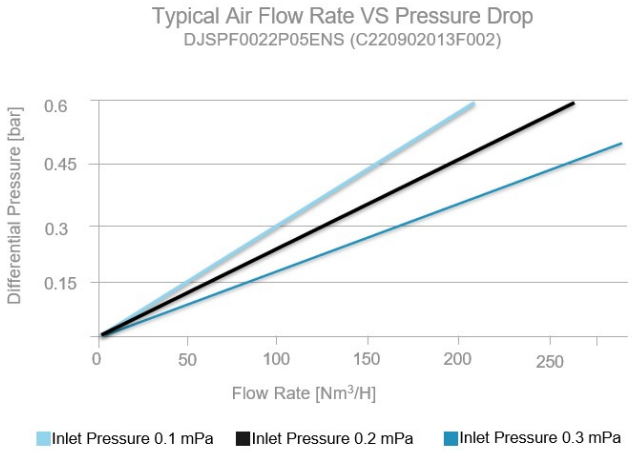
LeSiever® Filters with 0.1 µm or 0.2 µm hydrophobic PTFE filters, are a versatile and reliable choice for numerous applications across industries. Their ability to ensure clean, sterile, and particle-free environments makes them indispensable for critical processes that demand high-quality filtration.

LeSiever® Filters with 0.45 µm or 1.0 µm hydrophobic PTFE filters are commonly used in pre-filter in HVAC systems, compressed air lines, venting applications.

Technical specification

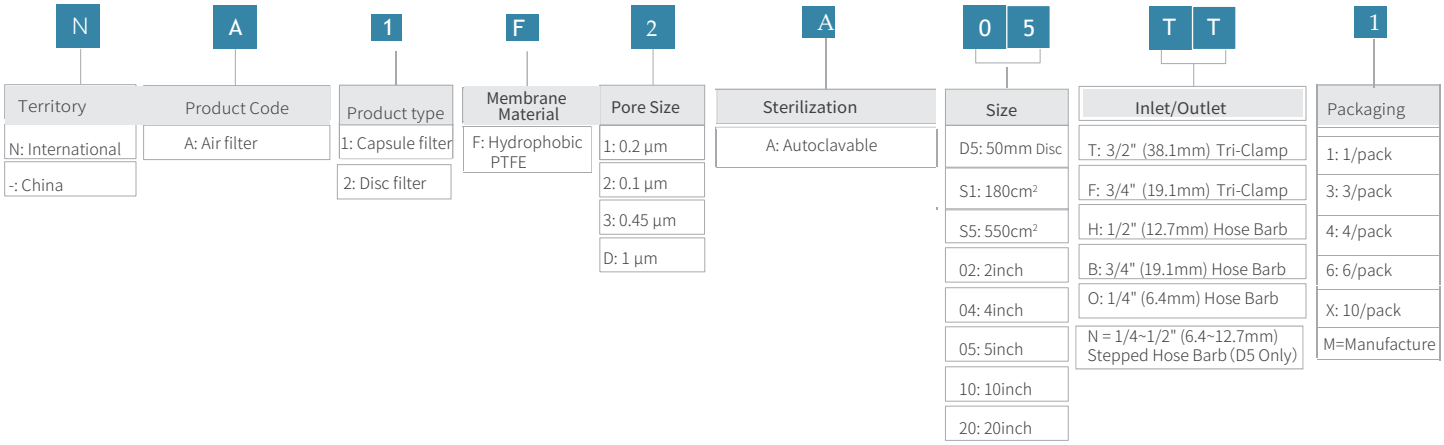
Size	Size 1	Size 5	2''	4''	5''	10''	20''
Filtration Area m^2 I ft^2	0.018 I 0.19	0.055 I 0.59	0.13 I 1.4	0.23 I 2.5	0.33 I 3.6	0.66 I 7.1	1.32 I 14.2
Pore size (μm)	0.1 μm, 0.2 μm, 0.45 μm, 1.0 μm						
Materials of Construction							
Filter media	Hydrophobic PTFE (Polytetrafluoroethylene)						
Structural components	Polypropylene						
O-ring	Silicone (SI)						
Supports	Polypropylene						
Maximum Pressure							
Forward mbar (psi) at 23°C	4000 (58)	5000 (73)	5000 (73)	5000 (73)	5000 (73)	5000 (73)	5000 (73)
Reverse mbar (psi) at 23°C	2000 (29)	2500 (36)	2500 (36)	2500 (36)	2500 (36)	2500 (36)	2500 (36)
Integrity Test for 0.1μm and 0.2μm only							
Water Intrusion @ 2600 mbar| 37.7 psi, mL/min	-	-	⩽0.16	⩽0.27	⩽0.38	⩽0.76	⩽1.2
Bubble Point at 23 °C, mbar (psi), 60/40% IPA/Water	⩾1350 (19.6)						
Bacterial Retention	Quantitative retention of 10^7 CFU/cm^2 Brevundimonas diminuta (ATCC® 19146) per ASTM® F838-83 methodology						
Toxicity	Meet the requirements of USP 88						
TOC/Conductivity	Effluent meets the WFI criteria for USP <643>, TotalOrganic Carbon, and USP <645>, Conductivity, after a WFI water flush of: 5.5 L at 25 °C and 10 L at 25 °C						
Oxidizable Substances	Effluent meets the requirements for USP Sterile Water for Injection after a water flush of: 1000 mL.						
Bacterial Endotoxins	Aqueous extraction contains ⩽0.5 EU/mL as determined by the Limulus Amebocyte Lysate (LAL) Test						
Sterilization	20 autoclave cycles of 60 min @ 126°C						
Non-Fiber Releasing	Component materials meet the "non-fiber releasing" criteria as defined in 21 CFR 210.3 (b) (6).						
Component Material Toxicity	Component materials meet the criteria of the USP <87>, USP <88>						

Standard Flow Rate versus Pressure Drop



Ordering information

LeSiever® Hydrophobic PTFE Capsule Filters



Size	Catalogue Number				Filtration Area	Package
	0.1 μm	0.2 μm)	0.45 μm)	1 μm)		
D5	NA2F2AD5NNX	NA2F1AD5NNX	NA2F3AD5NNX	NA2FDAD5NNX	20cm²	10/pack
S1	NA1F2AS1--6	NA1F1AS1--6	NA1F3AS1--6	NA1FDAS1--6	180cm²	6/pack
S5	NA1F2AS5--4	NA1F1AS5--4	NA1F3AS5--4	NA1FDAS5--4	550cm²	4/pack
2inch	NA1F2A02--4	NA1F1A02--4	NA1F3A02--4	NA1FDA02--4	0.13m²	4/pack
4inch	NA1F2A04--3	NA1F1A04--3	NA1F3A04--3	NA1FDA04--3	0.23m²	3/pack
5inch	NA1F2A05--1	NA1F1A05--1	NA1F3A05--1	NA1FDA05--1	0.33m²	1/pack
10inch	NA1F2A10--1	NA1F1A10--1	NA1F3A10--1	NA1FDA10--1	0.66m²	1/pack
20inch	NA1F2A20--1	NA1F1A20--1	NA1F3A20--1	NA1FDA20--1	1.32m²	1/pack

--Inlet/Outlet:

B = 19.1 mm 3/4"Hose Barb (Only 20")

F = 19.1 mm 3/4'' Tri-Clamp (Size 1 Only)

O = 6.4 mm 1/4'' Hose Barb (Size 1 Only)

N = 1/4~1/2" (6.4~12.7mm) Stepped Hose Barb (D5 Only)

*Packaging:

1 = 1/pack (5", 10", 20")

3 = 3/pack (4")

4 = 4/pack (2")

6 = 6/pack (Size 1)

X = 10/pack (D5)

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