



SKL Dual Layer Series PTFE Filter Capsules

SKL dual layer Series PTFE filter capsules are highly retentive hydrophobic PTFE membrane filters that have been specially designed for critical applications. The PTFE membrane in an all-polypropylene construction provides excellent chemical compatibility and superior flow per unit area as compared to other membrane capsules. The hydrophobic PTFE membrane is ideally suited for aggressive chemicals such as acids, bases, and solvents. In addition, the hydrophobic membrane provides superior flow and pressure-drop characteristics per unit area for gas filtration and tank venting applications. All filter capsules are 100% integrity tested to ensure filter performance each and every time out of the package.

Application

Buffers and Reagents	Product Sterilization	Fermentation Broths
SVP (Small Volume Parenteral)	Fine Chemicals	Pharmaceuticals
Acids	Biologics	Process Water
Bases	Plating Solutions	Serums

SKL Series H-size Capsule



Inlet: Female Luer Lock

Outlet: 1/4" to 1/2" Hose Barb





Technical Data Sheet

Popular Configuration:

Catalog Number	Internal Filter Length	Inlet Connection	Outlet Connection	Sterilization
SKLF045020HLF2H-PH-ETO	1.5"	Female Luer Lock	¼" to ½" Hose Barb	ETO

Materials of Construction

- Media: PTFE Sterilizing Grade - Hydrophobic
- Media Supports: Polypropylene
- Cage, Core, End Caps: Polypropylene
- Valve O-Rings: Silicon (Standard)
- Sealing: Thermally End Capping

Micron Rating:

- Final Media: 0.2 µm
- Pre-Filter: 0.45 µm

Effective Filtration Area:

0.7 ft² (650 cm²)

Volume Filtered:

12.5L – 28.6L

Nominal Dimensions:

- Lengths: 1.5" (38mm) without fittings
- Diameter: 2.75" (70mm)

Operating Conditions:

- Maximum Working Pressure: 5.5 bar (80 psi) at 77°F/25°C
- Minimum Burst Pressure: >3.5 bar (50 psi) at 77°F/25°C
- Recommended Replacement Pressure: 2.4 bar (35.3 psi)
- Maximum Forward Differential Pressure: 4.1 bar (60psi) at 77°F/25°C
- Maximum Reverse Differential Pressure: 2.1 bar (30psi) at 77°F/25°C
- Maximum Operating Temperature: 176°F/80°C

Water Bubble Point Specification:

0.2 µm: 50psi, 0.35 MPa



Regulatory Compliance:

The filters are constructed with polypropylene resins and filtration media in compliance with 21CFR Part 177 of the US Code of Federal Regulations and USP Class VI Biological Test for Plastic.

Capsule Integrity:

The capsules meet the minimum burst pressure of 8.3 bar (120 psi) at 72°F/22°C

Filter Integrity:

The finished product was sampled and shown to exhibit a bubble point of 3.5 bar (50 psi) using air at 22°C.

USP Bacterial Endotoxins:

The filters were tested to confirm that an aqueous extraction of this product contains <0.25 EU/ml as determined by the Limulus Amebocyte Lysate (LAL) Test

USP Conductivity:

Effluent is tested during the manufacturing process and shown to meet the requirements for USP Sterile Water for Injection for conductivity.

Bacterial Retention:

The filters are quantitatively retentive towards *Brevundimonas diminuta* (ATCC #19146) at a minimum challenge level of 10^7 CFU per cm^2 of filtration area, consistent with ASTM F838-05

Sterilization:

The filters can be autoclaved up to 25 cycles at 125°C (257°F) for 30 minutes. They can be sterilized by gamma sterilized up to 50kGy.

Warning: The filters cannot be sterilized by steam-in-place (SIP)

ISO 10993-5 Cytotoxicity:

Extract from this product is non-Cytotoxic

ASTM Hemolysis:

Extract from this product is non-Hemolytic

Shelf Life:

The SKL capsules have a shelf life of 2 years from the date of sterilization

Special Configuration:

Layer Option:

- Single Layer
- Dual Layer

Size Option:

- H = 1.5" [Filtration Area: 720 cm^2]
- S = 2.5" [Filtration Area: 1380 cm^2]
- L = 5.0" [Filtration Area: 2600 cm^2]

Seal Option:

- EPDM
- Buna-N
- Viton





Micron Rating Option:

- 0.04 Micron
- 0.1 Micron
- 0.2 Micron
- 0.45 Micron
- 0.65 Micron
- 0.8 Micron
- 1.2 Micron

Inlet Fitting Option:

- 1H = 1/8" Hose barbs
- 1Q = 1/8" Male Quick Coupling with Metal latch
- 1QF = 1/8" Female Quick Coupling with Metal latch
- 2H = 1/4" to 1/2" Hose barbs
- 2HS = 1/4" to 3/8" Hose barbs
- 2P = 1/4" Push to Connect
- 2Q = 1/4" Male Quick Coupling for Metal latch
- 2QF = 1/4" Female Quick Coupling with Metal latch
- 3H = 3/8" Hose Barb
- 3H-FB = 3/8" Hose Barb with filling bell
- 4H = 1/2" Hose Barb
- 4Q = 1/2" Male Quick Coupling for Plastic latch
- LF = Luer Lock Female
- MT = 1/2" Tri clamps
- TC = 1-1/2" Tri clamp

Outlet Fitting Option:

- 1H = 1/8" Hose barbs
- 1Q = 1/8" Male Quick Coupling with Metal latch
- 1QF = 1/8" Female Quick Coupling with Metal latch
- 2H = 1/4" to 1/2" Hose barbs
- 2HS = 1/4" to 3/8" Hose barbs
- 2P = 1/4" Push to Connect
- 2Q = 1/4" Male Quick Coupling for Metal latch
- 2QF = 1/4" Female Quick Coupling with Metal latch
- 3H = 3/8" Hose Barb
- 3H-FB = 3/8" Hose Barb with filling bell
- 4H = 1/2" Hose Barb
- 4Q = 1/2" Male Quick Coupling for Plastic latch
- LM = Luer Lock Male
- MT = 1/2" Tri clamps
- TC = 1-1/2" Tri clamp

