

# PS 70 mm Encapsulated Disc Filters

## Double Layer Asymmetric Polyethersulfone Membrane



### Applications

- ◆ Aseptic Sampling of Fluid
- ◆ Contaminant Analyses
- ◆ Process Scale Up Studies
- ◆ Validation Studies

PS 70 mm disc capsule filters are manufactured using two layers of highly asymmetric polyethersulfone (PES) membrane. This high flow membrane with low binding characteristics is ideal for removing bacteria and other contaminants in pharmaceuticals, ophthalmics, biopharmaceuticals and other liquids.

Our 70 mm disc capsule filters are manufactured to the highest industry standards and packaged in an appropriately rated clean room. Any filtration process can be scaled from the laboratory through to full production using the same filter media and materials of construction.

### PS 70 mm Disc Capsule Filter- Dimensions

Diameter/Length	Filtration Area	Holdup Volume*
Body Diameter = 84.6 mm (3.33") Overall Length = 37 mm (1.85") to 74 mm (2.48") (Varies with Choice of Inlet/Outlet)	38.5 cm <sup>2</sup> (5.97 in <sup>2</sup> )	8.2 mL

\* Typical holdup volume without fittings.

### Identical Membrane and Materials of Construction for Scale-Up

Critical Process Filtration filter devices of all scales are made using the same media, membrane, support materials and device materials. Our disposable disc filters (both 25mm and 70mm) mini-capsule filters, disposable capsule filters and pleated cartridge filters use the same polymers and other materials, so you can be assured of the same performance in compatibility and have no surprises with leachables or extractables.

### Construction Materials

<b>Housing</b>	Polypropylene
<b>Filtration Media</b>	Double Layer Highly Asymmetric Polyethersulfone
<b>Media Support</b>	Polypropylene
<b>Sealing Method</b>	Thermal Bonding

### Maximum Operating Parameters

<b>Liquid Operational Pressure</b>	30 psi (2.1 bar) at 20 °C (68 °F)
<b>Gases Operational Pressure</b>	30 psi (2.1 bar) at 20 °C (68 °F)
<b>Operating Temperature</b>	82° C (180° F)
<b>Forward Differential Pressure</b>	30 psi (2.1 bar) at 20 °C (68 °F)
<b>Burst Pressure</b>	60 psi (4.2 bar) at 20° C

### Flow Rates

The following table shows the initial flow rate (in mL per minute) at a one psid (69 mbard) differential pressure through a 70 mm disc capsule filter with 1/4" hose barb inlet and 1/4" hose barb outlet. The test fluid is water at ambient temperature. Higher pressure drops are acceptable, but as flows increase the pressure drop of the housing and connections becomes more apparent.

Media and Pore Size Rating	0.03 µm	0.10 µm	0.22 µm	0.45 µm	0.65 µm	0.80 µm	1 µm	1.2 µm
<b>Asymmetric Polyethersulfone Membrane</b>	15	30	60	100	175	300	375	425

## Integrity Test Information

Representative samples of PS 70 mm disc capsule filters are factory tested for integrity before shipment.

## Sanitization/Sterilization

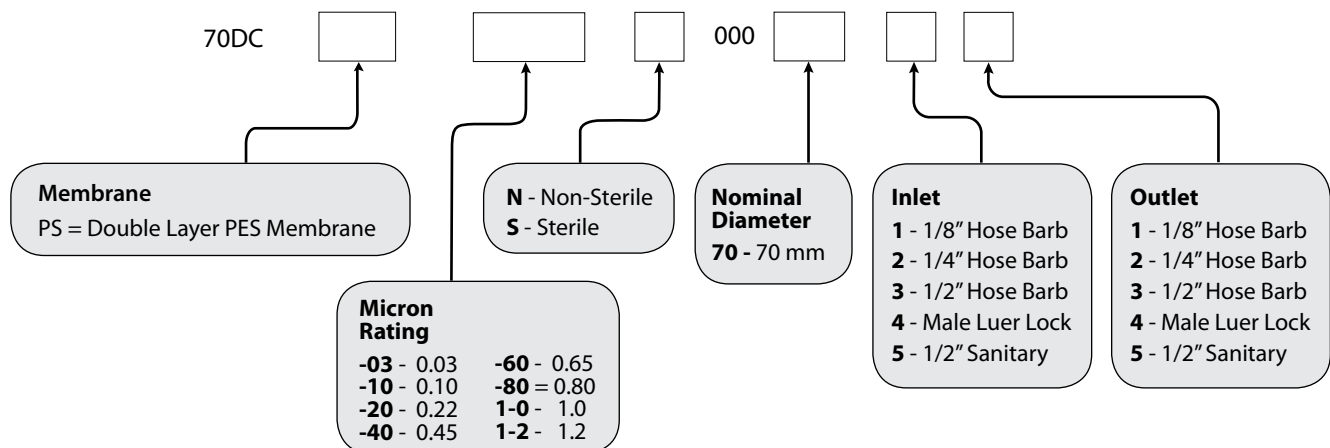
**Autoclave**.....  
250° F (121° C), 30 min, single cycle

## USP Biosafety and FDA Compliance

The materials used to construct PS 70 mm disc filters are non-toxic and meet the requirements for the MEM Elution Cytotoxicity Test and the requirements for Biological Reactivity Tests in the current version of the United States Pharmacopeia (USP) for Class VI - 121 °C Plastics. In addition, the materials meet the requirements listed by the FDA as appropriate for use in articles intended for repeated food contact as specified in Title 21 CFR sections 174.5, 177.1500, 177.1520, 177.1630, 177.2440, and 177.2600 as appropriate. PS 70 mm disc filters comply with Title 21 CFR sections 210.3 (b)(6) and 211.72, for non-fiber releasing filters. The levels of bacterial endotoxins in aqueous extracts from pharmaceutical grade capsule filters are below current USP limits as specified for water for injection.

## Ordering Information

70 mm disc capsule filter order number example: Double Layer Polyethersulfone Membrane, 0.22 Micron Rating, Non-Sterile, 1/2" Sanitary Inlet, 1/2" Sanitary Outlet = 70DCPS-20N0007055.



Request a **QUOTE** from your area representative



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## Extractables

PS 70 mm disc capsule filters are rinsed with high purity water to remove manufacturing debris and extractable substances. Our 70 mm disc capsule filters typically exhibit low levels of non-volatile residues.

## Quality Assurance and Standards

Critical Process Filtration filters are designed for use in cGMP-compliant processes. Our state of the art manufacturing facility and quality management system are certified to meet ISO 9001 standards. Each operation from assembly and test to cleaning, drying, and packaging is done in appropriately rated clean rooms. Each filter is assigned a lot code and serial number to ensure the traceability of manufacturing data and materials. A sophisticated MRP system collects and processes real time data from manufacturing centers and inspection points, allowing quick and easy analysis driving constant improvements in quality.

## We Do It Right the First Time

We solve filtration challenges where filters are a critical part of your manufacturing process. Our Technical Team works with you to engineer filtration solutions that fit your needs. Then we manufacture the filters in our ISO 9001 certified facility and deliver them fast, so you have the right filters when you need them.