

PD 70 mm Encapsulated Disc Filters

Flat Sheet Polypropylene Depth Media



Applications

- ◆ Bulk Pharmaceutical Chemicals
- ◆ Buffers and Other Media
- ◆ LVPs and SVPs
- ◆ Biologicals
- ◆ Ophthalmics
- ◆ Diagnostics

PD 70 mm encapsulated disc filters are made with polypropylene microfiber media. PD filters protect critical membrane filters downstream by removing 99.9% (β ratio = 1000) of contaminants at the rated pore size.

Specific applications for PD filters include pre-filtration of bulk pharmaceutical chemicals, water, buffers, solvents, alcohols and chemicals. PD filters also protect membrane filters used for sterilizing SVPs, LVPs, diagnostics, ophthalmics, beverages and other products.

Polypropylene exhibits broad chemical compatibility, so it is particularly suited for the filtration of chemicals and solvents.

PD 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 ² (5.97 in ²)	8.2 mL

*Typical holdup volume without fittings.

Identical Media 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

Housing	Polypropylene
Filtration Media	Polypropylene Flat Sheet Depth Media
Media Support	Polypropylene
Sealing Method	Thermal Bonding

Maximum Operating Parameters

Liquid Operational Pressure	30 psi (2.1 bar) at 20 °C (68 °F)
Gases Operational Pressure	30 psi (2.1 bar) at 20 °C (68 °F)
Operating Temperature	82° C (180° F)
Forward Differential Pressure	30 psi (2.1 bar) at 20 °C (68 °F)
Burst Pressure	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	0.10 μ m	0.22 μ m	0.45 μ m	0.65 μ m	1 μ m	3 μ m	5 μ m	10 μ m	20 μ m	30 μ m	40 μ m	60 μ m	100 μ m
Polypropylene Flat Sheet Depth Media	50	170	250	400	750	850	1200	1500	1700	1800	1850	1900	2000

Sanitization/Sterilization

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

Extractables

PD 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.

USP Biosafety and FDA Compliance

The materials used to construct PD 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. PD 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.

Quality Assurance and Standards

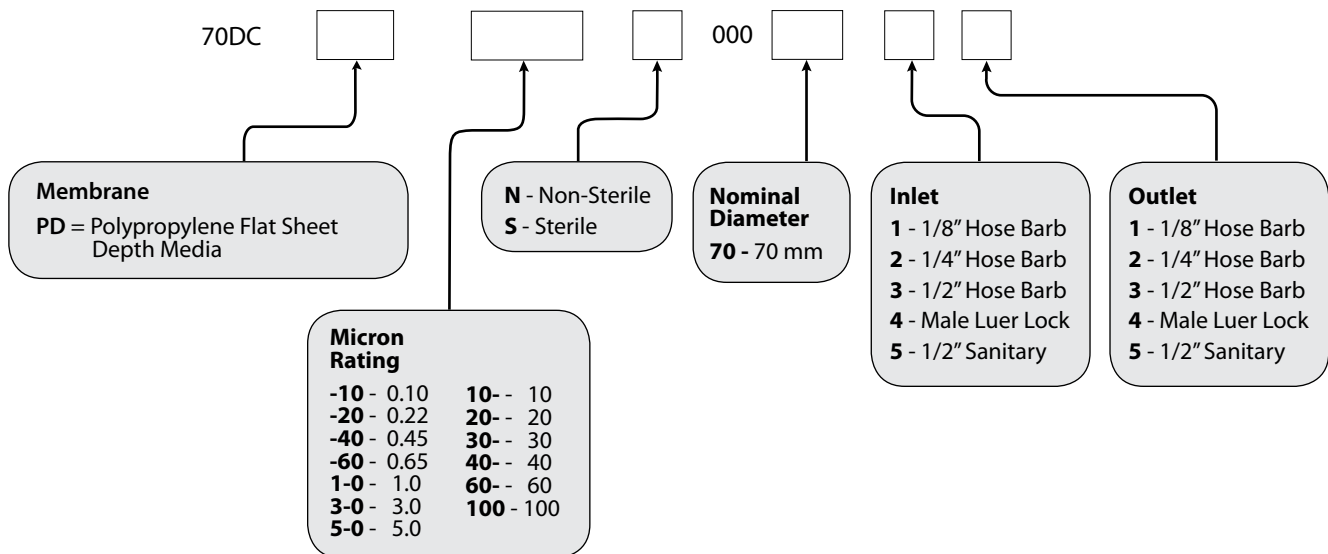
Critical Process Filtration filters are designed for use in cGMP-compliant processes. Our state of the art manufacturing facility and quality management system are certified to meet ISO 9001 standards. Each operation from assembly and test to cleaning, drying, and packaging is done in appropriately rated 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.

Ordering Information

70 mm disc capsule filter order number example: Polypropylene Flat Sheet Depth Media, 0.45 Micron Rating, Non-Sterile, 1/4" Hose Barb Inlet, 1/4" Hose Barb Outlet = 70DCPD-40N0007022.



Request a **QUOTE** from your area representative



Critical Process Filtration, Inc.

One Chestnut Street • Nashua, NH 03060
Tel: 603.880.4420 • Fax: 603.880.4536

criticalprocess.com • sales@criticalprocess.com

The information contained herein is subject to change without notice.

The Critical Process Filtration logo is a trademark of Critical Process Filtration, Inc.

Viton is a trademark of DuPont Performance Elastomers L.L.C.

© 1998-2019 Critical Process Filtration, Inc. • All Rights Reserved • Data Sheet 70DCPDDS0319 Rev-