

TM 70 mm Encapsulated Disc Filters

Polytetrafluoroethylene (PTFE) Membrane



Applications

- ◆ Solvent Filtration
- ◆ Fermentation Air
- ◆ Small Tank Vent Filters
- ◆ Process Gas
- ◆ Compressed Air Filtration

TM 70 mm disc filters are manufactured with highly hydrophobic polytetrafluoroethylene (PTFE) membrane, these discs are used for filtration of non-aqueous liquids, aggressive solvents, compressed gases, and as vent filters on small tanks.

Laboratory Filters

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 ² (5.97 in ²) | 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

| | |
|-------------------------|---|
| Housing | Polypropylene |
| Filtration Media | Polytetrafluoroethylene (PTFE) Membrane |
| 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 fluids are water (after membrane pre-wetting) or compressed air at ambient temperature. Higher pressure drops are acceptable, but as flows increase the pressure drop of the housing and connections becomes more apparent.

| Air/Gas Flow Rates | | | | | | | | Liquid Flow Rates | | | | | | | |
|--------------------|---------|---------|---------|---------|--------|--------|--------|-------------------|---------|---------|---------|---------|--------|--------|--------|
| µm Rating | 0.05 µm | 0.10 µm | 0.22 µm | 0.45 µm | 1.0 µm | 3.0 µm | 5.0 µm | µm Rating | 0.05 µm | 0.10 µm | 0.22 µm | 0.45 µm | 1.0 µm | 3.0 µm | 5.0 µm |
| SCFM | 0.1 | 0.2 | 0.4 | 0.8 | 2 | 5 | 10 | LPM | 3 | 15 | 25 | 65 | 100 | 200 | 375 |

Integrity Test Information

Representative samples of TM 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 TM 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. TM 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: Polytetrafluoroethylene (PTFE) Membrane, 0.22 Micron Rating, Non-Sterile, 1/2" Sanitary Inlet, 1/2" Sanitary Outlet = 70DCTM-20N0007055.

Extractables

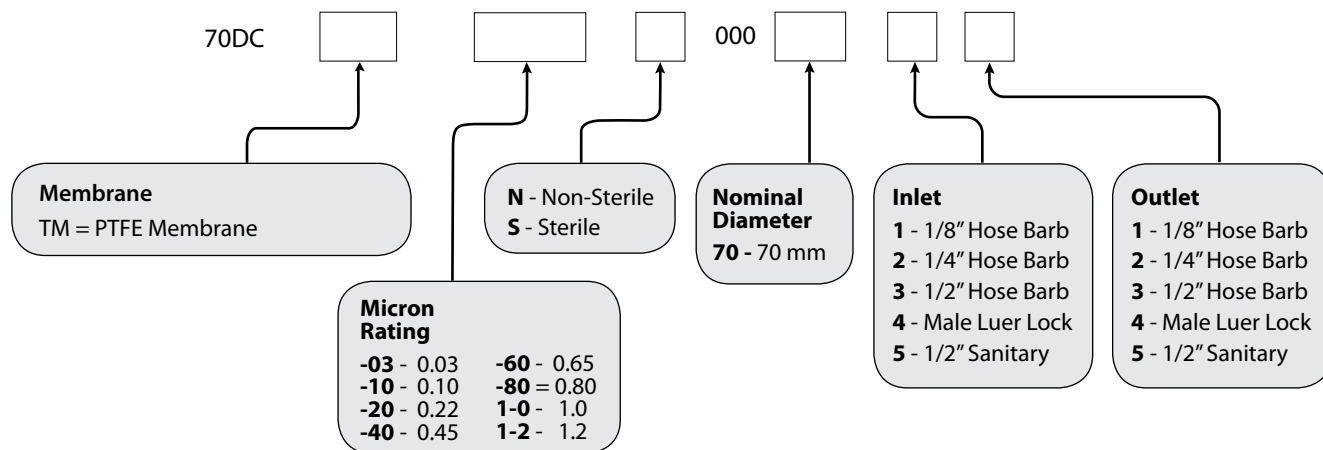
TM 70 mm disc capsule filters are rinsed with high purity water to remove manufacturing debris and extractable substances. Our 70 mm disc capsule filters typically exhibit low levels of non-volatile residues.

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.



Request a **QUOTE** from your area representative



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