

# Ultradyne®

## 0.2 µm TA-grade Filter Cartridge

### Description

The Ultradyne® TA0.2 filter cartridge is a sterilizing grade hydrophobic PTFE membrane filter optimized for applications requiring complete removal of bacteria and viruses from air and gas streams, such as fermenter inlet air and exhaust, sterile process air and sterile venting of filling vessels, bioreactors and product or intermediate tanks. The product also has broad chemical compatibility and is suitable for removal of particles and microorganisms from aggressive liquids, including strong acids and bases, and organic solvents.

### Materials of Construction

All components of the Ultradyne® filter cartridge are either animal component free or in compliance with EMEA/410/01 Rev. 3 (EDQM 5.2.8 07/2011:50208), and US Code of Federal Regulations 9 CFR 94.18 and 21 CFR 189.5. These materials are listed for food contact use in the Code of Federal Regulations (CFR), Title 21, as below:

Membrane:	Polytetrafluoroethylene (PTFE)	CFR Title 21, 177.1550
Upstream support:	Polypropylene	CFR Title 21, 177.1520
Downstream support:	Polypropylene	CFR Title 21, 177.1520
Outer guard:	Polypropylene	CFR Title 21, 177.1520
Core:	Polypropylene	CFR Title 21, 177.1520
End caps:	Polypropylene	CFR Title 21, 177.1520
O-rings:	Typically silicone	CFR Title 21, 177.2600
Sealing method:	Thermal bonding	

**Pore Size** 0.2 µm

**Minimum Bubble Point** 16 psi (1.1 bar), 60% IPA/40% water  
16 psi (1.1 bar), 70% IPA/30% water

**Maximum Diffusion Rate** 10 mL/min per 10" (25 cm) @ 10 psi (0.69 bar), 60% IPA/40% water  
19.5 mL/min per 10" (25 cm) @ 10 psi (0.69 bar), 70% IPA/30% water

**Water Intrusion Test** 0.6 mL/min water at 36 psi (2.48 bar) per 10" (25 cm)  
*Specification can vary by instrumentation; consult factory.*

**Typical Water Flow** 0.4 psid/gpm per 10" (1.37 L/min at Δp 10 mbar per 25 cm)

**Typical Air Flow** 50 scfm/psid per 10" (61.6 Nm<sup>3</sup>/hr @ Δp 50 mbar per 25 cm)

**Bacterial Retention** > 10<sup>7</sup> per cm<sup>2</sup> removal of *Brevundimonas diminuta* per ASTM F838

### Operating Characteristics

Operating temperature range:	32 °F to 100 °F (0 °C to 38 °C)
Maximum temperature rating:	180 °F @ 30 psid (82 °C @ 2.1 bar)
Maximum operating pressure:	80 psid @ 100 °F (5.5 bar @ 38 °C)
Maximum reverse pressure:	15 psid @ 100 °F (1.0 bar @ 38 °C)

### Sterilization

Autoclave: 121 to 135 °C (15 to 30 psi, 1 to 2 bar), 30 to 60 min, ≥ 3 cycles

Steam in place: 121 to 135 °C (15 to 30 psi, 1 to 2 bar), 30 to 60 min, ≥ 3 cycles

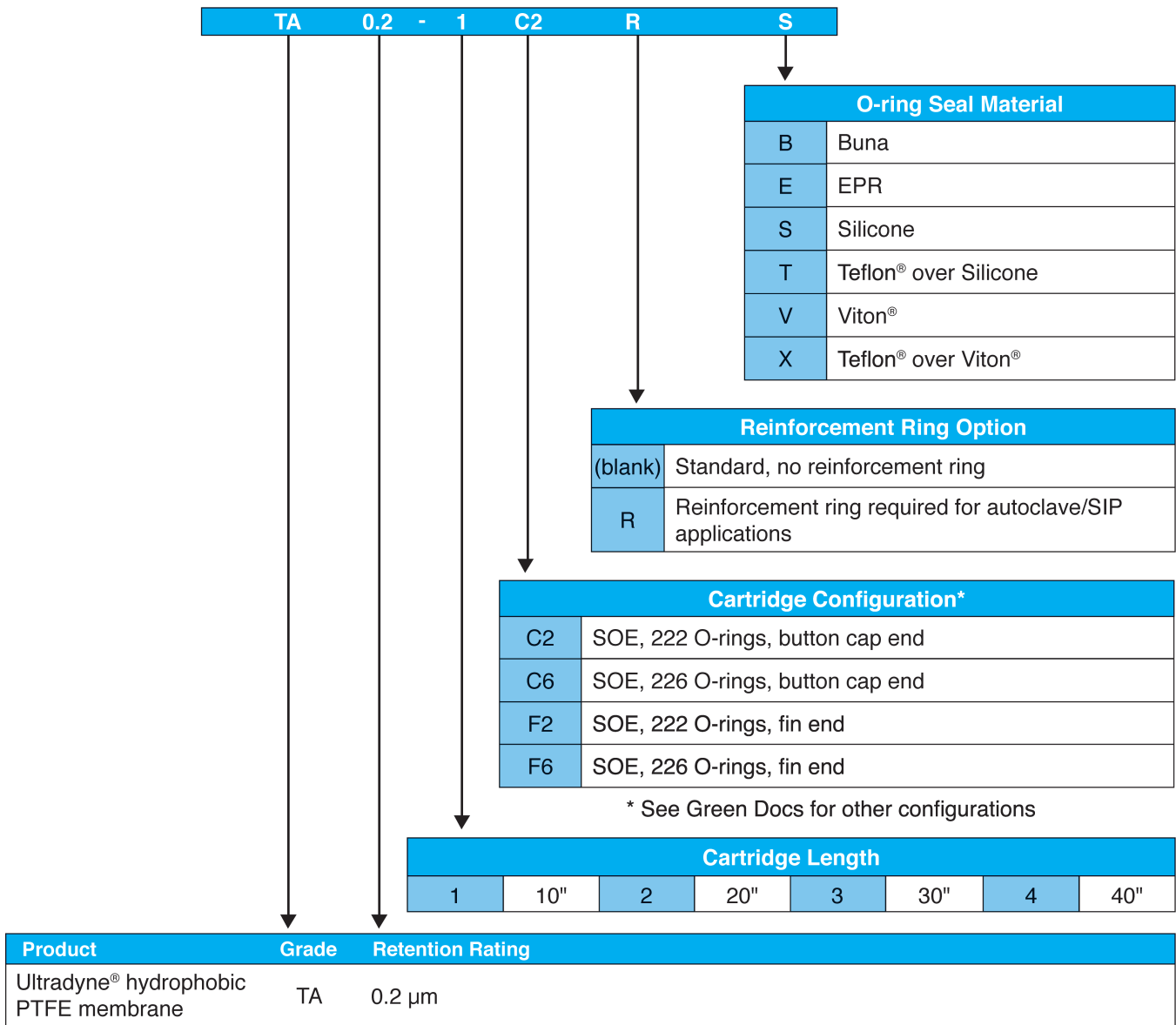
### Biological Safety

Ultradyne® filters meet the requirements as specified in the current USP <88> Class VI plastics, <87> cytotoxicity and pyrogenicity tests. No binders, adhesives, or surfactants are used in its construction. Filters comply with Commission Regulation (EU) No 10/2011.

## Quality Assurance

Ultradyne® TA0.2 filters comply with the Food and Drug Administration Code of Federal Regulations, Title 21, Parts 210 and 211. Product is manufactured and packaged in a cleanroom facility that, through voluntary compliance, meets or exceeds FDA Good Manufacturing Practice Standards. To ensure product reliability, Meissner's Quality Assurance staff continually audits the manufacturing process for conformance to its Quality Management System. Each Ultradyne® filter is integrity tested during manufacture and is clearly marked with filter type and lot number.

## Ordering Guide



Additional information about this filter product is available in the Ultradyne® Green Docs document at [www.meissner.com/green-docs](http://www.meissner.com/green-docs).

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