

# 3M™ LifeASSURE™ MFE Series

## PTFE Membrane Filter Cartridges

3M™ LifeASSURE™ MFE Series Filter Cartridges have been designed for high-purity chemicals used in the electronics industry. The hydrophobic PTFE membrane in an all polypropylene construction provides excellent chemical resistance and high efficiency contaminant reduction for acids, bases, solvents and photo-chemicals used in the semiconductor, video display and hard drive industries. After manufacture and assembly, cartridges are rinsed with 18 megohm-cm DI water in a clean environment under an ISO-certified quality system to provide downstream cleanliness and then double-bagged. No pre-wetting is required for solvent based chemicals.

### Features & Benefits

#### PTFE and Polypropylene Materials of Construction

- Robust materials provide excellent resistance in aggressive chemicals and/or dynamic pressure applications

#### Radial Pleat Construction

- Provides a low differential pressure to minimize bubble formation
- Increased throughput and long filter life

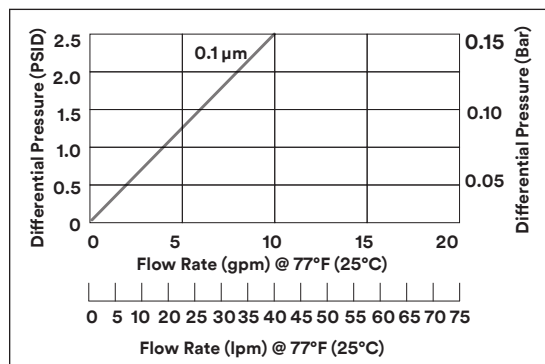
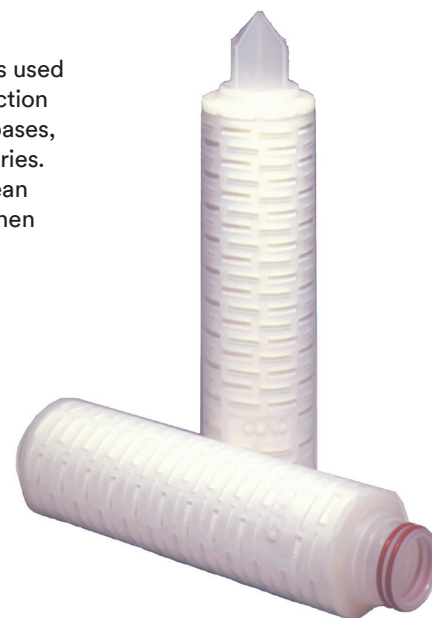


Chart 1: 3M™ LifeASSURE™ MFE Series Flow Rate vs. Differential Pressure

### Applications

- Acids
- Bases
- Solvents
- Photoresists
- Anti-reflective coatings
- Plating solutions
- Glass substrates
- Hard disk drives

# Materials of Construction

3M™ LifeASSURE™ MFE Series Filter Cartridges are constructed of high efficiency hydrophobic PTFE membrane. The outer cage, inner core, end cap adapters and membrane support layers are made of polypropylene and no adhesives, binders, or surfactants are used in the manufacturing process. Filter cartridges are manufactured and double bagged in a clean environment under an ISO quality system. All MFE series cartridges are rinsed with 18 megohm-cm DI water and integrity tested.

Specifications	
Membrane Material	Hydrophobic PTFE
Outer Cage, Inner Core, End Cap Adapters, Membrane Support Layer	Polypropylene
Filtration Surface Area	11.0 ft. <sup>2</sup> (1.02m <sup>2</sup> )
Outside Diameter	Nominal 2.75 in. (7cm)
Length	10 in. (25.4cm), 20 in. (50.8cm)
Maximum Forward Differential Pressure	80 psid @ 77°F (5.5 bar @ 25°C) 25 psid @ 176°F (1.7 bar @ 80°C)
Maximum Operating Temperature	176°F (80°C)
Reduction Ratings	0.1µm

# 3M™ LifeASSURE™ MFE Series Ordering Guide

Model Number	3M ID	Global ID	Description		
			Length	Grade	End Treatments
MFE010A01BB	70-0203-5027-1	7100194334	10 in.	0.1 µm	226/Spear Fluorocarbon
MFE010A02BB	70-0201-6865-7	7010338504	20 in.	0.1 µm	226/Spear Fluorocarbon
MFE010A02CK	70-0201-6976-2	7100004486	20 in.	0.1 µm	226/Spear PTFE Encapsulated Fluorocarbon
MFE010A02BA	70-0203-5359-8	7100242176	20 in.	0.1 µm	226/Spear SLCNE
MFE010J25AB01	70-0203-5059-4	7100206449	2.5 in.	0.1 µm	2.5" Capsule, 1.5" sanitary in/out, Fluorocarbon

**Intended Use and Product Selection:** 3M™ LifeASSURE™ MFE Series Filter cartridges are intended for use in industrial and high purity chemical filtration applications of aqueous fluids in accordance with the applicable product instructions and specifications. 3M LifeASSURE MFE Series Filter cartridges are also intended for use with non-aqueous fluids where materials of construction are compatible. Since there are many factors that can affect a product's use, the customer and user remain responsible for determining whether the 3M product is suitable and appropriate for the user's specific application, including user conducting an appropriate risk assessment and evaluating the 3M product in user's application.

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3M™ LifeASSURE™ MFE Series Filter cartridges products are not for use in food contact applications.

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