PALL Life Sciences

USD 2017[1]

Pall Emflon® FM Filter

Description

Pall **Emflon** FM filters are designed for cost-effective clarification of solvents used in the manufacture of antibiotics and other active pharmaceutical ingredients (APIs). These pharmaceutical grade filters contain a proprietary PTFE membrane and are compatible with a broad range of chemicals. They can also be used to ensure cleanliness of high purity solvents. Applications include removal of carbon or catalyst fines, and these filters are often used downstream of bulk solids removal systems.

Key Features

- Broad chemical compatibility
- Very high flow rates
- Low extractables
- Tolerant of high operating temperatures
- "No cage" option further reduces potential extractables

High Quality Standards

- Each filter supplied with a certificate of test
- Lot number traceable
- Meets USP Biological Reactivity, *In Vivo*, for class VI –121°C for Plastics
- FDA listed materials per 21 CFR

Compatibility at 20°C

This filter was specifically designed for improved compatibility and optimized economics in polishing a broad array of challenging solvents, including:

Acetic Acid, Glacial - Acetone - Acetonitrile Dimethylacetamide (DMAC) Dimethylformamide (DMF) Dimethylsulfoxide *(DMSO)* - Ethanol - Ethyl Acetate - n Heptane - Hexane - Hydrochloric Acid 38% - Isopropyl Alcohol (IPA) - Methanol - Methylene Chloride - Methyl Isobutyl Ketone (MIBK) - Methyl Tertiary Butyl Ether (MTBE) - Pyridine - Sodium Hydroxide, 50% -Tetrahydrofuran (THF) - Toluene - Water - Xylene

This partial list is provided for general guidance only.

Note: *Because so many factors (eg elevated temperatures) can affect the chemical resistance of a given product, you should pre-test under your own operating conditions observing applicable safety practices such as those given in the Material Safety Data Sheet for each chemical. Pall Corporation can provide specific compatibility guidance, testing and data upon request.*

Filtration. Separation. Solution.SM

Materials of Construction

Membrane	PTFE (hydrophobic)
Support and Drainage Layers	Polypropylene
Core, Cage and Endcaps	Polypropylene

Operating Parameters

Max Differential Pressure (Δp)	4.1 bar (60 psi) @ 23°C (73°F) 2.1 bar (31 psi) @ 60°C (140°F)
Max Operating Temperature	95°C (203°F) at 1.0 bar (14 psi) Δp

Extractables*

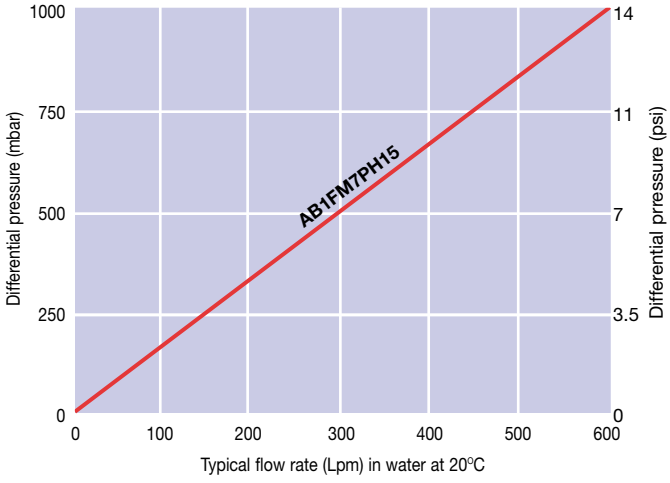
Water	< 5mg
Acetone	90mg
Ethyl acetate	240mg
Methylene chloride	600mg
Toluene	515mg

*These typical extractables are based on tests of sampled 254mm modules with cages at 20°C.

Filter Area (Per 254mm module)

Typical Effective Filtration Area	0.58m² (6.2ft²)

Typical Liquid Flow rates



Removal Ratings**

Particle size	Beta Ratio (Efficiency)	
0.6µm	100	(99.0%)
1µm	2000	(99.2%)
2µm	5000	(99.98%)
3µm	>5000	(99.98%)
4µm	>5000	(99.98%)
>5µm	>5000	(99.98%)

***As determined by a modified OSU-F2 test described in Pall publication USD 1329

Order Information (Part number denotes one filter, minimum order quantity 12)

AB-Series

A			FM		P	H15

MCY-Series

MCY100		FM	P	H2

Code	Cage Option
B	Polypropylene cage
BA	No cage

Code	Nominal Length
1	254mm
2	508mm
3	762mm
4	1016mm

Code	Adaptor Style
47	Single O-ring with locating fin (Fits in all **Pall** code 7 housings)
7	Double O-ring with locating fin

Code	Seal Option
H15	FEP / Silicone
H2	PTFE

PALL Life Sciences

New York - USA
+1 516 484 5400 phone
+1 516 625 3610 fax
pharmafilter@pall.com e-mail

Portsmouth - Europe
+44 (0)23 9230 3303 phone
+44 (0)23 9230 2506 fax
BioPharmUK@pall.com e-mail

Filtration. Separation. Solution.SM

Visit us on the web at www.pall.com/biopharmaceutical

Pall Corporation has offices and plants throughout the world in locations including: Argentina, Australia, Austria, Belgium, Brazil, Canada, China, France, Germany, Hong Kong, India, Indonesia, Ireland, Italy, Japan, Korea, Malaysia, Mexico, the Netherlands, New Zealand, Norway, Poland, Puerto Rico, Russia, Singapore, South Africa, Spain, Sweden, Switzerland, Taiwan, Thailand, United Kingdom, the United States and Venezuela. Distributors are located in all major industrial areas of the world.

PELEH/00-ZZC.SH/CS/08.2000
USD 2017(1)/02.2002