

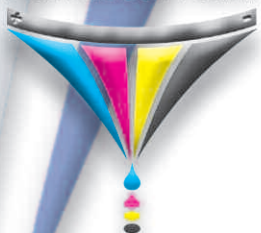


Pall Corporation

WATER-FINE Filter Cartridges for Ink Jet Ink Formulation



Pall Ink Jet Team



Filtration. Separation. Solution.SM

IJ 1787



Long Life Membrane Filtration for Aqueous Ink Jet Inks

The Pall® WATER-FINE filter is a highly asymmetric membrane filter designed for filtration of aqueous fluids, including ink jet inks. The patented polysulfone membrane features a tapered pore structure for high flow rates and long on-stream life.

The WATER-FINE filter is an excellent choice where fine filtration to 0.2µm is required, but with the economy of an industrial filter cartridge. This filter is ideal for final filtration of most office printing ink jet inks and will help assure printer performance.

Reference Pall literature publication 1254-B "Filtration Solutions for Ink Jet Ink Formulation" for specific recommendations.

Description and Key Features

- **Pall** WATER-FINE filters are pleated polysulfone membrane filters with polypropylene hardware.
- Four nominal filter lengths are available: 10"/254mm, 20"/508mm, 30"/762mm, and 40"/1016mm.
- **Pall** WATER-FINE filters for aqueous ink filtration are available in removal ratings of 0.1µm, 0.2µm and 0.45µm absolute (complimentary grades are available for other applications).

Features

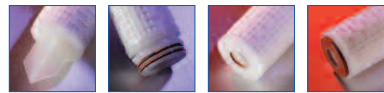
- Filter utilizes a highly asymmetric polysulfone membrane
- Absolute removal ratings of 0.1µm, 0.2µm and 0.45µm
- Hydrophilic filter media
- Ink Jet Specification option
- Wide array of configurations available
- Large media effective filter area

Advantages

- Upstream section is a prefiltration zone
- Consistently high efficiency filtration
- Easily wets out with most aqueous inks
- Optimized filter media for ink jet ink formulation
- Can be used in a wide variety of filter housings
- Low pressure drop

Benefits

- Longer service life
- Meets or exceeds ink quality requirements for thermal ink jet printing
- No need for prewetting
- Maximum flow performance and economy of operation
- Easily retrofitted into current systems and flexible for future expansion
- High flow rates for fast ink production



Technical Information

Materials of Construction

Filter Media	Highly Asymmetric Polysulfone Membrane
Core, Cage and Endcaps	Polypropylene
Gaskets/O-Rings	Ethylene Propylene (EPDM) ⁽¹⁾

⁽¹⁾ Please contact Pall for other available materials

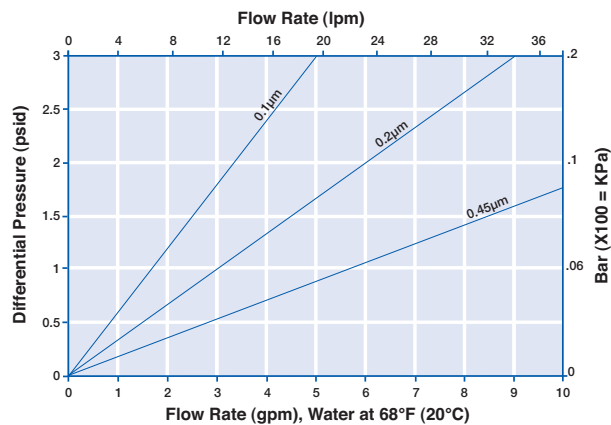
Operating Conditions⁽²⁾

Maximum operating differential pressures and temperatures in compatible fluids:

Operating Temperature	Maximum Differential Pressure
68°F/20°C	80 psid/5.5 bard
203°F/95°C	20 psid/1.4 bard

⁽²⁾ Fluids that do not soften, swell or adversely affect the filter or materials of construction

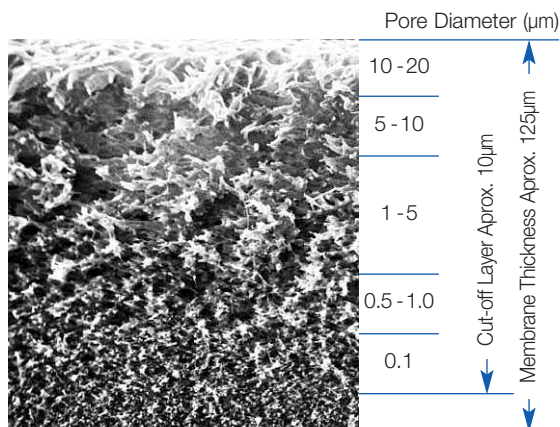
Typical Liquid Flow Rate versus Differential Pressure⁽³⁾



⁽³⁾ For liquids with viscosities differing from water, multiply the pressure drop by the viscosity in centipoise (cP)

Typical Media Structure Cross Section Photomicrograph

Cross section of highly asymmetric polysulfone membrane
(Magnification X 500).





Ordering Information

(This is a guide to part number structure only. For availability of specific options, please consult Pall)

W F N

Table 1 Table 2 Table 3 Table 4 Table 5 Table 6

Table 1

Code	Absolute Removal Rating ⁽⁴⁾
0.1	0.1µm
0.2	0.2µm
0.45	0.45µm

⁽⁴⁾ Based on >99.9% Retention Rating by Standard Latex Bead Challenge

Table 2

Code	Cartridge Length
10	10"
20	20"
30	30"
40	40"

Table 3

Code	Hardware
U	Polypropylene

Table 4

Code	Gasket/O-ring Material
E	EPDM (standard)
V	'Viton' A
N	Buna N

Table 5

Code	End Configuration
No Code	Double-Open End (DOE)
M3	SOE, flat closed end, external 222 o-rings
M7	SOE, fin end, external 226 o-rings
M8	SOE, fin end, external 222 o-rings

Table 6

Code	Special Ink Jet Specification
147	Preflushed cartridge and Ink Jet optimized media



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