POLY-FINE® XLD Filter Cartridges for Digital Ink Formulation

Data Sheet MEXLDIJEN

Optimized Hybrid of Depth and Pleated Filtration Technologies

The Pall® POLY-FINE XLD filter is an innovative synthesis of depth and pleated filtration technologies. This product combines the high flow capacity and low pressure loss of pleated filters, with the gel retention capability and long life of a depth filter.

The POLY-FINE XLD filter is an excellent choice for a wide range of digital printing inks. The construction of the POLY-FINE XLD filter has been tailored to meet the needs of digital ink formulation and the all-polypropylene construction is compatible with many of the current Inkjet ink chemistries. The multi-layer media structure has been developed with fine dispersion classification and gel retention in mind.

Features

- Pleated-depth filters with all-polypropylene construction.
- Four nominal filter lengths are available: 10'' / 254 mm, 20'' / 508 mm, 30'' / 762 mm, and 40'' / 1016 mm.
- Removal ratings from 1.0 to 10 µm absolute (coarser grades are available for other applications).

Features	Advantages	Benefits
Optimized media structure	Improved dispersion classification performance	Effectively removes oversized material with minimum removal of colorant
Absolute rated filter media	Consistent, repeatable filtration performance	Dependable ink quality on every batch
Thick media structure	Excellent gel retention	Increased ink cleanliness and printer performance
All-polypropylene construction	Excellent compatibility with most digital ink chemistries	Ink chemists need to approve only one material for new ink formulations
High void volume media structure	Significant porosity to capture and retain contaminant	Long service life and low filter cost per gallon
Robust construction for higher viscosity fluids	Filter pleats will resist pleat deformation when filtering higher viscosity digital inks	Even pleat flow throughout service life for maximum media utilization and long service life.
Cartridges are free of surfactants, binders, resins and adhesives	Very low extractables in most ink systems	No impact on critical ink properties

Specifications

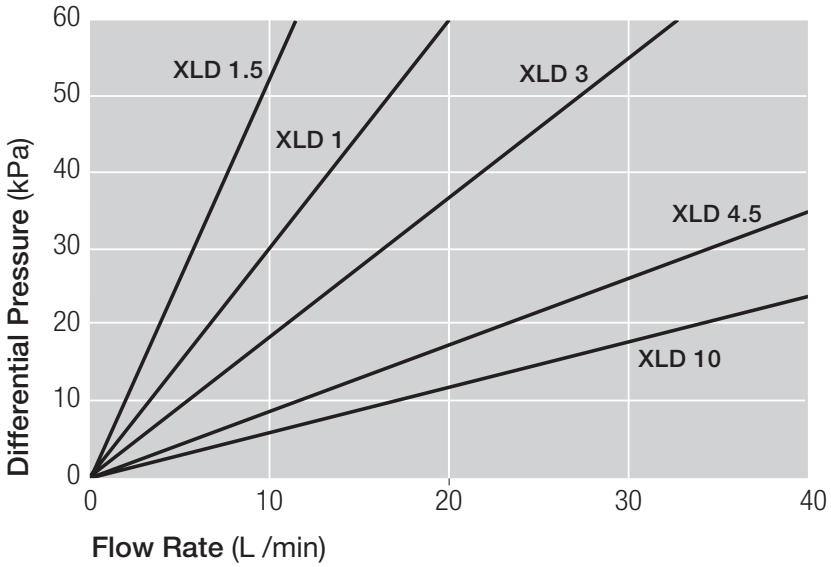
Materials of Construction

Filter Media	Polypropylene
Core, Cage and Endcaps	Polypropylene
Gaskets / O-Rings	Ethylene Propylene (EPDM)[1]

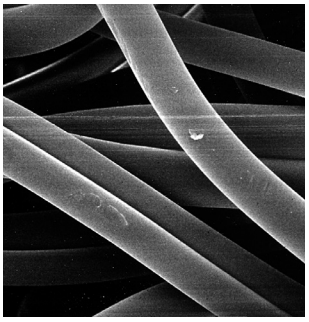
[1] Please contact Pall for other available materials

Maximum Operating Temperature	65 °C / 150 °F
Maximum Differential Pressure	280 kPa @ 65 °C / 40 psid @ 150 °F
	480 kPa @ 20 °C / 70 psid @ 68 °F

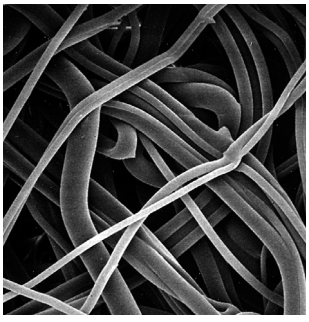
Typical Liquid Flow Rate versus Differential Pressure



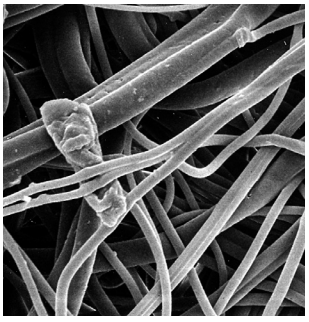
Micrograph of POLY-FINE XLD Series filter media (magnification x500)



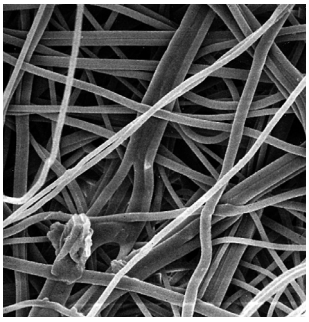
Outer Pre-Filtration Layer



Pre-Filtration Layer 2



Pre-Filtration Layer 3



Inner Final Filtration Layer (Constant Pore Size)

Part Numbers / Ordering Information

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

XLD [1] [2] [3] [4] [5] [6]

Table 1

Code	Removal Ratings
1	1.0 µm
1.5	1.5 µm
3	3.0 µm
4.5	4.5 µm
10	10 µm

Table 2

Code	Cartridge Length
10	10" / 254 mm
20	20" / 508 mm
30	30" / 762 mm
40	40" / 1016 mm

Table 3

Code	Hardware
U	Polypropylene

Table 4

Code	Gasket / O-ring Material
E	EPDM (standard)
V	Fluoroelastomer
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 Inkjet Specification
147	Preflushed cartridge with optimized media

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