

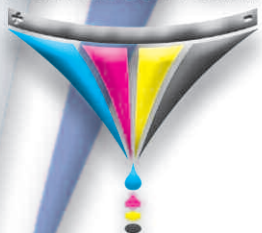


Pall Corporation

# NEXIS® A series Filter Cartridges for Ink Jet Ink Formulation



Pall Ink Jet Team



*Filtration. Separation. Solution.<sup>SM</sup>*

IJ 1788



## High Performance, Absolute-Rated Depth Filter for Ink Jet Ink Filtration

The Pall® **NEXIS** A filter cartridge is a high performance depth filter and an essential part of many ink jet ink formulation applications. This all-polypropylene filter features proprietary CoLD (Co-located Large Diameter) fiber technology to enhance the filters' strength and resist contaminant unloading. In addition, this filter has been optimized with a graded pore structure for outstanding dirt holding capacity and long service life.

**Pall NEXIS** A filters are an ideal choice for a wide variety of ink jet ink formulation applications, including solvent, aqueous and UV curable ink jet formulations.

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

### Description and Key Features

- **Pall NEXIS** A Series filters are high efficiency depth filters with all-polypropylene construction.

Four nominal filter lengths are available: 10"/254mm, 20"/508mm, 30"/762mm, and 40"/1016mm.

- **Pall NEXIS** A filters for ink jet ink formulation filtration are available in key removal ratings from 0.5 to 10µm absolute (coarser grades are available for other applications).

### Features

- All-polypropylene construction
- Continuous gradient pore structure
- Proprietary CoLD fiber technology
- Free of adhesives, binders, resins and silicone
- Absolute rated at >99.9% efficiency
- Wide array of sizes and configurations available
- Microprocessor-controlled, continuous manufacturing process

### Advantages

- Excellent compatibility with most ink systems
- Prefiltration section and final filtration capability in one filter
- Enhanced filter structural strength
- Very low extractables in most ink jet systems
- High efficiency contaminant removal, even at finer levels
- Can be used in a variety of filter housings and applications
- Maximum filter consistency from lot-to-lot

### Benefits

- One filter can be utilized across a wide range of ink families
- Longer service life and lower cost per gallon for filtration
- Resist contaminant unloading even at high differential pressures
- Filter will not impact critical ink properties
- Excellent protection of downstream final filter
- Easily retrofitted into current systems and flexible for future expansion
- Ink will meet quality criteria on a consistent basis



## Technical Information

### Materials of Construction

Filter Media	Polypropylene
Core, Cage and Endcaps	Polypropylene
Gaskets/O-Rings	Ethylene Propylene (EPDM) <sup>(1)</sup>

<sup>(1)</sup> Please contact Pall for other available materials

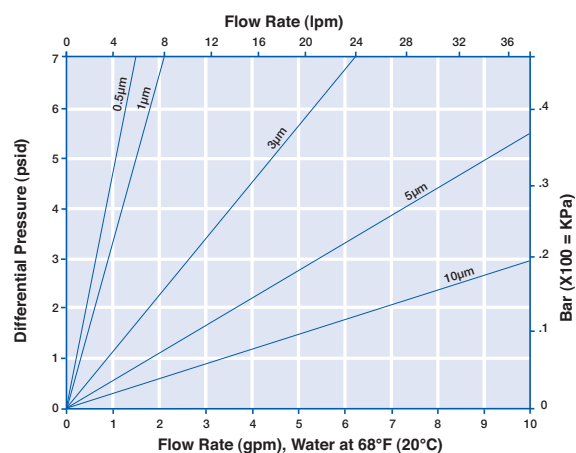
### Operating Conditions<sup>(2)</sup>

Maximum operating differential pressures and temperatures in compatible fluids:

Operating Temperature	Maximum Differential Pressure
86°F/30°C	60 psid/4.1 bard
150°F/66°C	25 psid/1.7 bard
180°F/82°C	15 psid/1.0 bard

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

### Typical Liquid Flow Rate versus Differential Pressure<sup>(3)</sup>

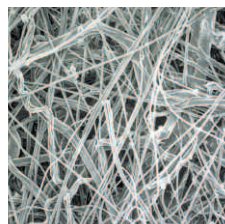


<sup>(3)</sup> Flow rate is per 10" / 254 mm. For liquids with viscosities differing from water, multiply the pressure drop by the viscosity in centipoise (cP).

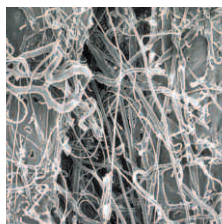
### Graded Pore Structure Micrographs of Nexis Series Filter Cartridges (magnification x75)



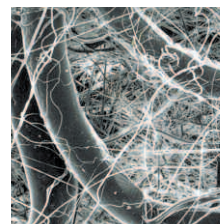
Outer Pre-Filtration Zones



Intermediate Pre-Filtration Zones



Intermediate Pre-Filtration Zones with CoLD fibers



Final Filtration Zone: Micro-Thin Fibers interwoven with CoLD fibers



## Ordering Information

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

**N X A**



**Table 1**

Code	Absolute Removal Rating <sup>(4)</sup>
0.5	<0.5µm
1	0.95µm
3	2.8µm
5	4.1µm
10	9.5µm

<sup>(4)</sup> Based on >99.9% Retention Rating by ASTM F-795 Test

**Table 2**

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

**Table 3**

Code	Hardware
U	Polypropylene

**Table 4**

Code	End Configuration
No Code	Double Open End (DOE) Industrial (no endcaps)
H21	DOE, 'Santoprene' Gasket Seal Endcaps
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 5**

Code	Gasket/O-ring Material
No Code	None
E	EPDM (standard)
V	'Viton' A
N	Buna N



Pall Corporation

**Pall Microelectronics**

New York - USA

800.360.7255 toll free  
+1 516 484 5400 telephone  
+1 516 625 3610 fax

Portsmouth - UK

+44 (0)23 9230 2336 telephone  
+44 (0)23 9230 2509 fax  
processuk@pall.com

**Visit us on the web at [www.pall.com](http://www.pall.com)**

**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, United States, and Venezuela. Distributors are located in all major industrial areas of the world.

Because of developments in technology these data or procedures may be subject to change. Consequently we advise users to review their continuing validity annually. Part numbers quoted above are protected by the Copyright of Pall Europe Limited.

PALL, Pall and Nexis are trade marks of Pall Corporation  
Part Numbers quoted above are protected by the Copyright of Pall Europe Limited

® indicates a trade mark registered in the USA

Santoprene is a trade mark of Santoprene

Viton is a trade mark of DuPont Dow

Filtration.Separation.Solution is a service mark of Pall Corporation

© 2005, Pall Europe Limited

*Filtration. Separation. Solution.<sup>SM</sup>*