

Fluorogard® NX Filter

Cost-effective, hydrophobic PTFE/PFA filters for advanced wet etch and clean applications

Fluorogard® NX filters offer a cost-effective alternative for advanced wet etch and clean (WEC) applications. Designed for aggressive aqueous chemicals and solvent applications, the Fluorogard NX filter's hydrophobic PTFE membrane maximizes surface area to improve flow rate performance and increase device yields at elevated temperatures. Ideal for medium- to high-flow extended lifetime applications, Fluorogard NX filters remove particles from a wide range of acids, bases, and other process chemicals. In addition, the PTFE/PFA fluorine resin materials and thermally bonded construction minimize chloride, metal extractables, and other contaminants that can negatively impact yield and throughput.

Fluorogard NX filters are available in various device configurations with a wide range of retention ratings to balance performance with cost of ownership. The optional prewet configuration ships 0.9% H₂O₂ wet, enabling rapid start-up in aqueous chemicals while avoiding alcohol-chemical interactions.

APPLICATIONS

- Medium- to high-flow chemical applications in both semiconductor and display market applications
- Wet etch and clean (WEC) applications/one pass and recirculation
- Bulk chemical manufacturing
- Bulk chemical delivery systems (BCDS)
- Aggressive aqueous chemistries
- Advanced solvents

Note: Fluorogard NX filters are not recommended for high-outgassing solutions like SPM, SC1, and SC2. Entegris recommends [QuickChange® NX filters](#) for these applications.



Remove particles from a range of acids, bases, and other process chemicals.

FEATURES & BENEFITS

Retention ratings from 10 µm to 15 nm	Removes particles from a wide range of acids, bases, and other process chemicals
Rugged materials of construction	<p>Requires minimal setup time, promoting a lower cost of ownership in advanced WEC processes</p> <p>Hydrophobic membrane's increased surface area</p> <ul style="list-style-type: none"> • Improves flow rate performance with low pressure drop • Enables higher throughput and increased device yield at elevated temperatures
Cost-effective prewet cartridge filter option ships 0.9% H₂O₂ wet	<p>PTFE/PFA fluorine resin materials and thermally bonded PFA construction</p> <ul style="list-style-type: none"> • Ensures excellent chemical compatibility • Minimizes chloride and metals extractable that can impact process performance • Enables low particle shedding to increase yield and throughput <p>Allows for rapid start-up in aqueous chemical</p> <p>Prevents alcohol-chemical interactions</p>

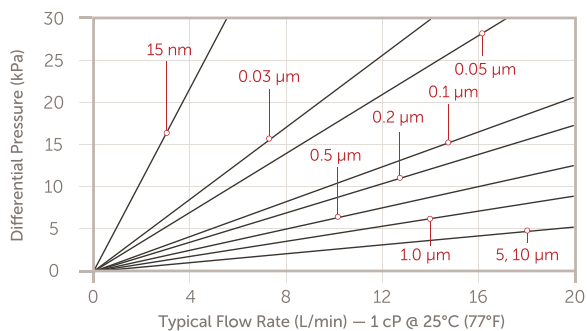
SPECIFICATIONS

	NXT cartridge	NXE cartridge
Materials	Membrane	Hydrophobic PTFE
	Supports, core, sleeve, end caps, Chemlock® key	PFA
	O-ring options	E-FKM, E-ETP, Kalrez®
Retention ratings	0.05, 0.1, 0.2, 0.5, 1.0, 5, 10 µm, 15, 30 nm	0.05, 0.1, 0.2, 0.5 µm, 15, 30 nm
Membrane surface area	4": 0.36 m² (3.88 ft²)	10": 2.1 m² (22.6 ft²)
	10": 0.9 m² (9.68 ft²)	20" 4.2 m² (45.21 ft²)
	20": 1.8 m² (19.38 ft²)	30" 6.3 m² (67.81 ft²)
	30": 2.7 m² (29.06 ft²)	
Metallic extractables	Testing conducted for 23 metals	
Maximum operating conditions	Operating pressure	0.58 MPa (5.8 bar, 84 psi @ 25°C [77°F])
	Forward differential pressure	0.44 MPa (4.4 bar, 64 psi @ 25°C [77°F]) 0.05 MPa (0.5 bar, 7.5 psi @ 180°C [356°F])
	Reverse pressure	0.34 MPa (3.4 bar, 50 psi @ 25°C [77°F])
	Operating temperature	180°C (356°F)

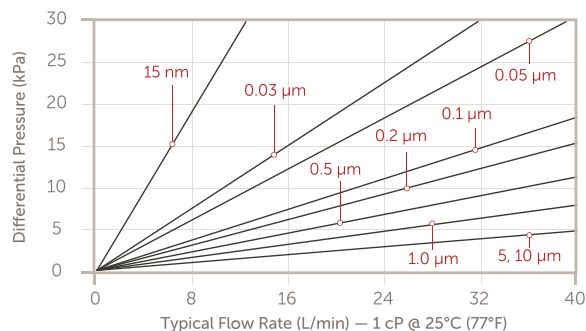
Note: The prewet option ships 0.9% H₂O₂ wet. Contact Entegris for proper use and handling. Fluorogard NX filters are PFOA free. Shelf life (prewet option) is one year.

PERFORMANCE DATA

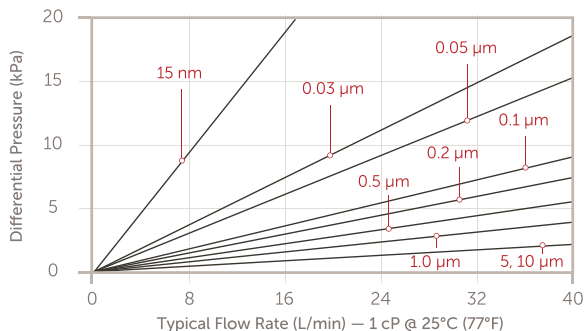
Fluorogard NXT 4" Cartridge Filters



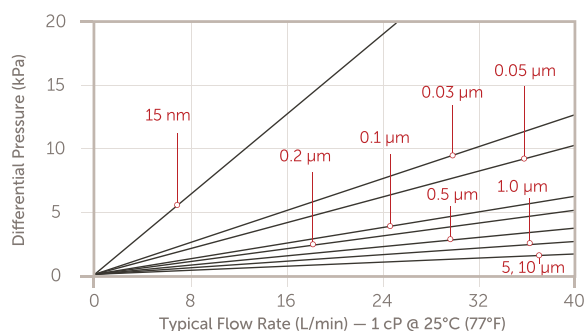
Fluorogard NXT 10" Cartridge Filters



Fluorogard NXT 20" Cartridge Filters

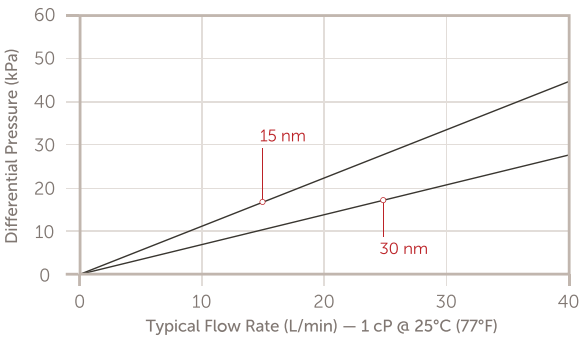


Fluorogard NXT 30" Cartridge Filters

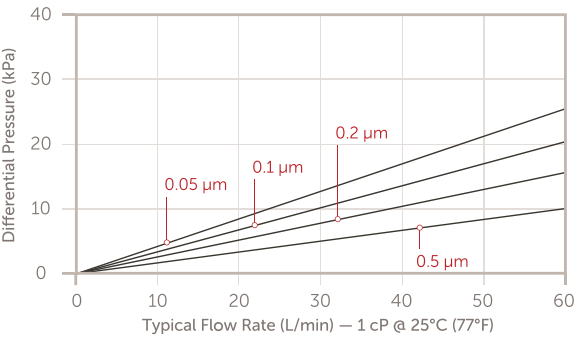


PERFORMANCE DATA

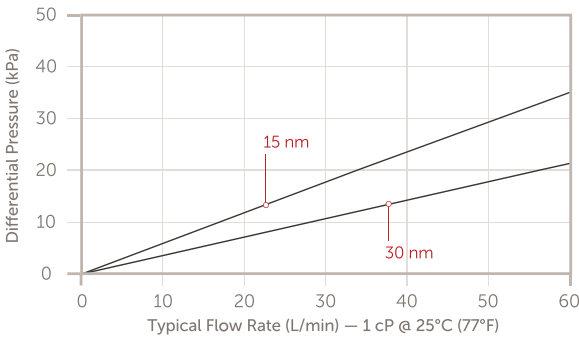
Fluorogard NXE 10" Cartridge Filters (nm)



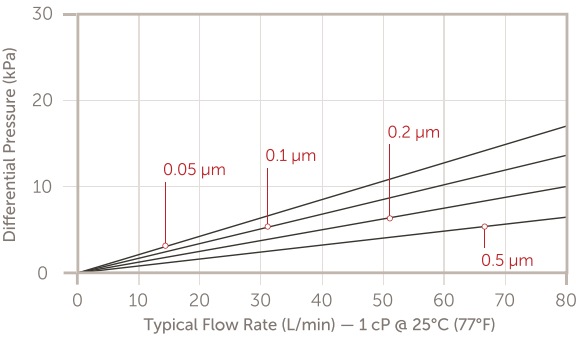
Fluorogard NXE 10" Cartridge Filters (µm)



Fluorogard NXE 20" Cartridge Filters (nm)

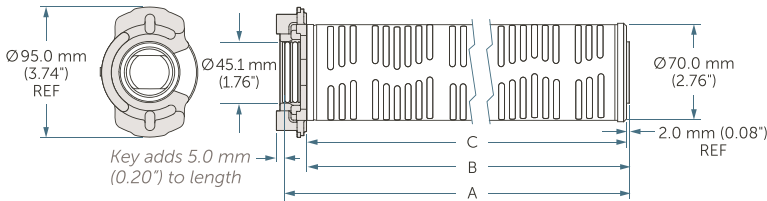


Fluorogard NXE 20" Cartridge Filters (µm)



DIMENSIONS

Fluorogard NXT Cartridge Filters

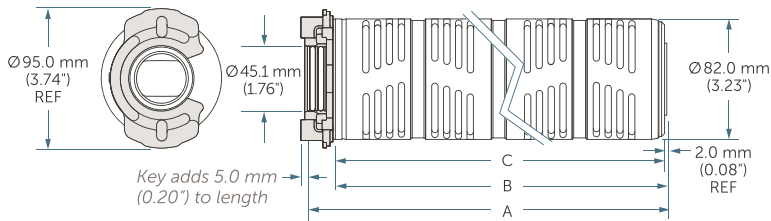


NXT Cartridge Filters

Cartridge length	A (overall)	B (control)	C (shoulder)
4"	132.3 mm (5.21")	115.0 mm (4.53")	113.0 mm (4.45")
10"	262.3 mm (10.33")	245.0 mm (9.65")	243.0 m (9.57")
20"	498.3 mm (19.62")	481.0 mm (18.94")	479.0 mm (18.86")
30"	738.0 mm (29.06")	721.0 mm (28.39")	719.0 mm (28.31")

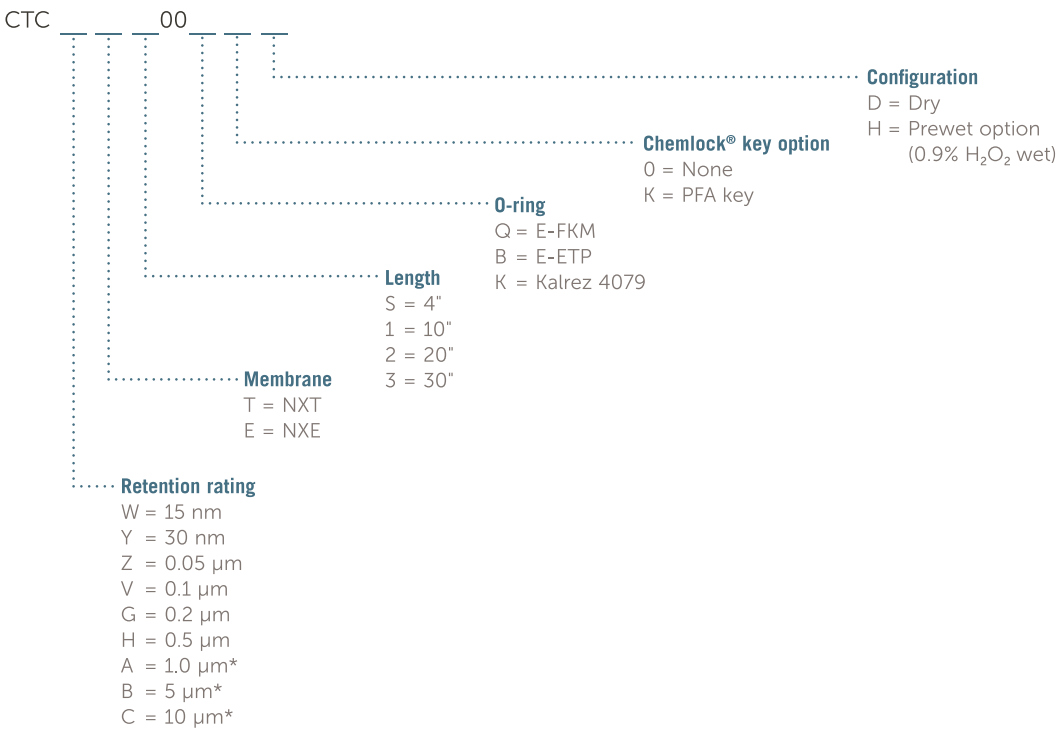
DIMENSIONS

Fluorogard NXE Cartridge Filters



NXE Cartridge Filters			
Cartridge length	A (overall)	B (control)	C (shoulder)
10"	244.0 mm (9.61")	227.0 mm (8.94")	225.0 m (8.86")
20"	471.0 mm (18.54")	454.0 mm (17.87")	452.0 mm (17.80")
30"	699.5 mm (27.54")	682.0 mm (26.85")	681.0 mm (26.81")

ORDERING INFORMATION



*Available with NXT membrane only.

FOR MORE INFORMATION

Please call your Regional Customer Service Center today to learn what Entegris can do for you. Visit entegris.com and select the [Contact Us](#) link to find the customer service center nearest you.

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