



Citadel™ Series Filter Cartridges

100% integrity tested to ensure performance standards.

All-Fluoropolymer Cartridge Filters for Aggressive Applications.

Citadel pleated membrane cartridges feature a PTFE membrane and PFA structural components to provide excellent chemical and temperature resistance for aggressive chemical applications such as etchers, strippers, cleaners and bulk chemicals. The all-fluoropolymer construction provides for the highest level of fluid purity and will exhibit rapid rinse-up to 18 MΩ-cm resistivity and single digit ppb levels of TOC. Citadel filter cartridges are produced and manufactured in an ISO cleanroom and are 100% integrity tested to ensure performance standards.

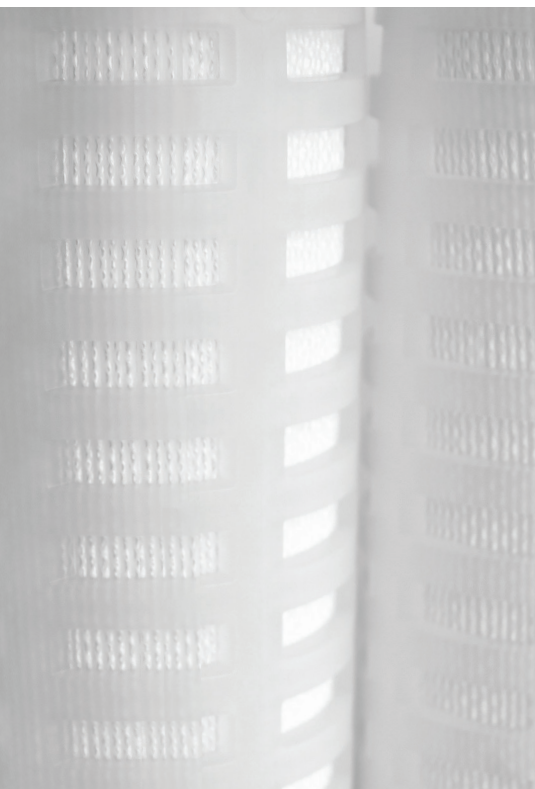
FEATURES & BENEFITS

- Manufactured, flushed, tested and packaged, in an ISO Class 7 Cleanroom Environment
- Filters are flushed with 18 MΩ-cm DI water to ensure low extractables and low particle shedding
- 100% integrity tested to provide reliable performance
- Resistivity rinse-up to 18 MΩ-cm and single digit ppb TOC levels with minimal throughput
- Pore size ratings of 0.05, 0.1 and 0.2 micron to meet a broad range of applications
- Wet-Pack option available to eliminate the requirement for solvent pre-wetting in aqueous applications

FILTER SPECIFICATIONS

Construction

Media	PTFE Membrane
Inner core, end caps, cage	PFA
Support layers	FEP, Expanded PTFE
Gaskets/O-Rings	Teflon encapsulated Viton, Chemraz®, Kalrez®
Micron ratings	0.05 μm, 0.1 μm, 0.2 μm



PRODUCT SPECIFICATIONS

Nominal Lengths	10", 20", 30", 40" (25.4, 50.8, 76.2, 101.6 cm)
Outside Diameter	2.7" (6.9 cm)
Inside Diameter	1.0" (2.54 cm)
Surface Area	0.05 µm: 7.9 ft ² (0.71 m ²) per 10-inch 0.1 µm, 0.2 µm: 8.9 ft ² (0.8 m ²) per 10-inch
Operating Parameters	
Maximum Differential Pressure	80 psid (5.5 bar) @ 24°C (75°F) 55 psid (3.8 bar) @ 75°C (167°F) 30 psid (2.0 bar) @ 125°C (257°F) 15 psid (1.0 bar) @ 150°C (300°F)
Maximum Reverse Pressure	50 psid (3.4 bar) @ 24°C (75°F) 15 psid (1.0 bar) @ 121°C (250°F)

CITADEL NOMENCLATURE INFORMATION

CTL	.05	-20	P3	T	-W
Filter Type Citadel Series Filters		Nominal Length (inches) -10 -20 -30 -40	End Configuration P3 222/Flat Single Open End	Gasket or O-Ring C Chemraz K Kalrez T Teflon Encapsulated Viton	Option W Pre-wet
Retention Rating (micron) 0.05 0.1 0.2					

RINSE-UP VOLUMES

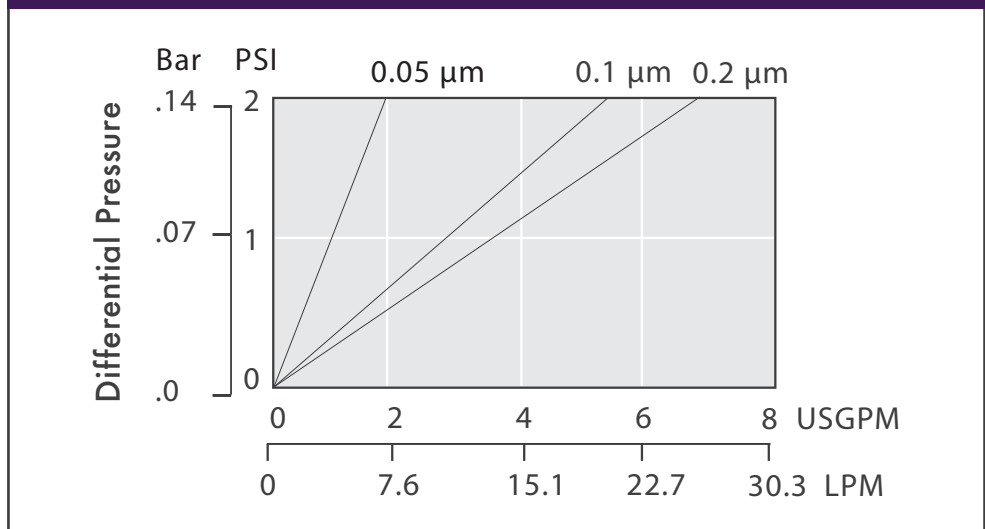
- Resistivity rinse-up to 18 MΩ-cm: <5 liters
- Particle cleanliness: <10 particles/mL >0.1 µm
- Extractable levels: < 25 ppb total in 5% HCl

INTEGRITY TEST SPECIFICATIONS

Maximum Diffusive Air Flow (per 10-inch cartridge) values for Citadel filters wet with 60/40 IPA/water:

- 0.05 µm: ≤ 90 cc/min @ 22 psig (1.5 bar)
- 0.1 µm: ≤ 50 cc/min @ 18 psig (1.2 bar)
- 0.2 µm: ≤ 20 cc/min @ 12 psig (0.8 bar)

CITADEL FLOW RATE



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