



WAFERGARD® F CARTRIDGE AND DISPOSABLE FILTERS

For point-of-use filtration of photochemicals, photoresists, solvents and other process chemicals

Overview

Wafergard® F 4-, 16- and 40-stack cartridge filters are designed for removal of hard particles from photochemicals. In addition to 0.1 µm, 0.2 µm and 1.0 µm, Wafergard F cartridge filters are available with a 0.05 µm pore size for critical point-of-use photochemical filtration. Wafergard F disposable filters provide safe and convenient in-line installation.

Applications

Stacked Disc Design to Provide Superior Downstream Cleanliness

The stacked-disc filter design eliminates flexing and particle shedding, providing downstream cleanliness in photochemical and photoresist applications. A polytetrafluoroethylene (PTFE) membrane made of Teflon® fluoropolymer resin and Halar® ethylene chlorotrifluoroethylene (ECTFE) stacked-disc make this filter ideal for point-of-use filtration applications with a broad range of photoresists.

Designed for Flexibility

Wafergard F filters in both cartridge and disposable types to meet your production needs and ensure clean and safe operation.



Manufactured at an ISO 9000 Registered Facility

An Entegris facility, registered to the ISO 9002 Quality Systems Standard, manufactures the filter. Testing of each filter ensures reliability.

Features and Benefits

Features	Benefits
Hydrophobic PTFE membrane made of Teflon fluoropolymer resin and Halar ECTFE stacked-discs	Provides excellent chemical compatibility to make these filters ideal for point-of-use filtration applications with a broad range of photochemicals and photoresists.
Stacked-disc filter design	Eliminates flexing and shedding to ensure reliable downstream cleanliness.
Available in pore sizes of 0.05 µm, 0.1 µm, 0.2 µm and 1.0 µm	Available in pore sizes to match the specific configuration and flow needs of your system. Excellent small particle retention: ensures minimal particles on wafer.
Available in 4-, 16- and 40-stacked-disc sizes	Available in sizes to fit most systems and production equipment configurations to provide one-source flexibility for all your point-of-use filtration needs.

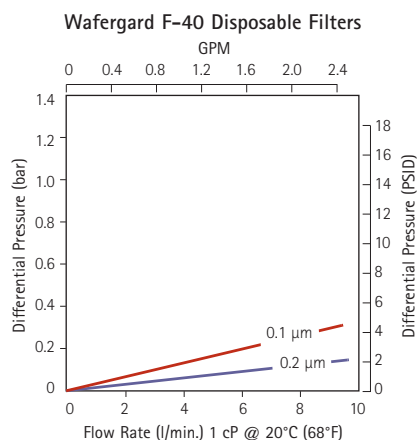
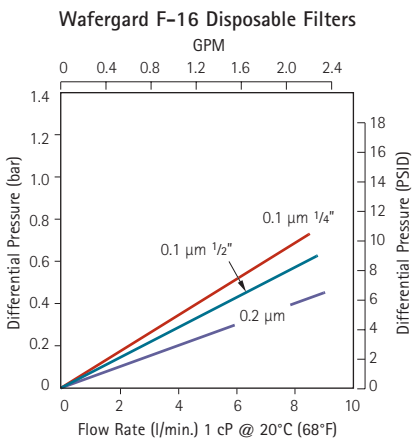
Wafergard F Disposable Filters

Specifications

Materials:	Membrane	Hydrophobic PTFE membrane made of Teflon fluoropolymer resin	
	Supports	Halar ECTFE stacked-disc	
	O-ring	Teflon fluoropolymer resin PTFE	
	Shell	Halar ECTFE	
Filtration area:	F-16	800 cm ² (124 in ²)	
	F-40	2,000 cm ² (310 in ²)	
Connections:	Vents	1/8" NPTF	
	Inlet and outlet	F-16	1/4" NPTF or 1/2" NPTM
		F-40	1/2" NPTM
Operating conditions:	Maximum inlet pressure	5.1 bar (74 PSIG, 5.2 kg/cm ²) @ 25°C	
		3.4 bar (50 PSIG, 3.4 kg/cm ²) @ 50°C	
		1.7 bar (25 PSIG, 1.7 kg/cm ²) @ 80°C	
	Maximum forward differential pressure	4 bar (58 PSID, 4.1 kg/cm ²) @ 25°C	
	Maximum reverse differential pressure	0.7 bar (10 PSID, 0.7 kg/cm ²) @ 25°C	
Maximum temperature	85°C		
Bubble point integrity testing:	Values are given using N ₂ and a membrane wet with 60% IPA at 23°C		
	0.05 μm	≥ 2.0 bar (29 PSIG, 2.0 kg/cm ²)	
	0.1 μm	≥ 1.5 bar (22 PSIG, 1.5 kg/cm ²)	
	0.2 μm	≥ 0.9 bar (13 PSIG, 0.9 kg/cm ²)	
Dimensions:	F-16 disposable	Width 80 mm (3.125"), Height 110.4 mm (4.25")	
	F-40 disposable	Width 80 mm (3.125"), Height 149.1 mm (6.66")	

Caution: Take proper precautions when handling hazardous or corrosive chemicals.

Performance Data



Ordering Information

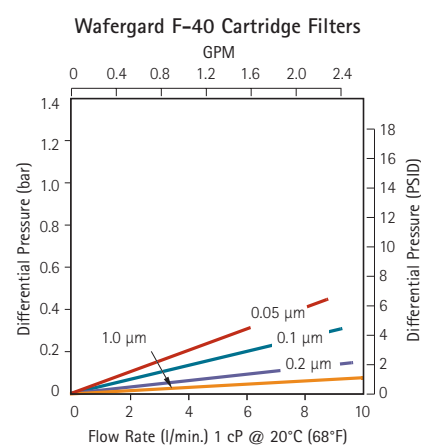
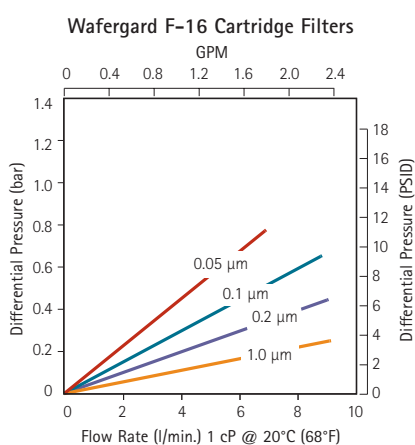
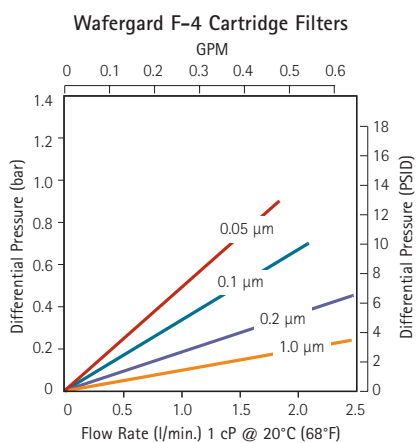
Part Number	Pore Size, μm	Fittings	Type
WGZ 16D 01	0.05	1/4" NPTF	F-16
WGFV 16D 01	0.1	1/4" NPTF	
WGFG 16D 01	0.2	1/4" NPTF	
WGZ 16D 21	0.05	1/2" NPTM	F-40
WGFV 16D 21	0.1	1/2" NPTM	
WGFG 16D 21	0.2	1/2" NPTM	
WGZ 40D 01	0.05	1/2" NPTM	F-40
WGFV 40D 01	0.1	1/2" NPTM	
WGFG 40D 01	0.2	1/2" NPTM	

Wafergard F Cartridge Filters

Specifications

Materials:	Membrane	Hydrophobic PTFE membrane made of Teflon fluoropolymer resin
	Supports	Halar ECTFE stacked-disc
	O-rings	Viton® and EPR, Viton encapsulated with Teflon fluoropolymer resin, Kalrez® perfluoroelastomers or Chemraz®
Filtration area:	F-4	200 cm ² (31 in ²)
	F-16	800 cm ² (124 in ²)
	F-40	2,000 cm ² (310 in ²)
Connections:	2-015 or 2-118	
Operating conditions:	Maximum forward differential pressure	4 bar (60 PSID, 4 kg/cm ²) @ 25°C
	Maximum reverse differential pressure	0.7 bar (10 PSID, 0.7 kg/cm ²) @ 25°C
	Maximum temperature	85°C
Bubble point integrity testing:	Values are given using N ₂ and a membrane wet with 60% IPA at 23°C	
	0.05 μm	≥ 2.0 bar (29 PSIG, 2.0 kg/cm ²)
	0.1 μm	≥ 1.5 bar (22 PSIG, 1.5 kg/cm ²)
	0.2 μm	≥ 0.9 bar (13 PSIG, 0.9 kg/cm ²)
	1.0 μm	≥ 0.2 bar (3 PSIG, 0.2 kg/cm ²)

Performance Data



Ordering Information

O-ring							
Viton and EPR	Viton Encapsulate with Teflon	Kalrez	Chemraz	Pore Size, μm	Size Code	Type	#/pk
WGfZ 04H P6				0.05	2-015	F-4	6
WGfV 04H P6				0.1			
WGfG 04H P6				0.2			
WGfA 04H P6				1.0			
WGfZ 16H P2				0.05	2-015	F-16	2
WGfV 16H P2		WGfV 16K P2	WGfV 16C P2	0.1	2-015		
WGfG 16H P2	WGfG 16T P2		WGfG 16C P2	0.2	2-015		
WGfA 16H P2				1.0	2-015		
WGfZ 40H P1			WGfZ 40C P1	0.05	2-015	F-40	1
WGfZ 40H 01				0.05	2-118		
WGfV 40H P1				0.1	2-015		
WGfV 40H 01	WGfV 40T P1	WGfV 40K P1	WGfV 40C P1	0.1	2-118		
WGfG 40H P1		WGfG 40K P1		0.2	2-015		
WGfG 40H 01	WGfG 40T 01		WGfG 40C 01	0.2	2-118		
WGfA 40H P1				1.0	2-015		
WGfA 40H 01				1.0	2-118		
P14491	P14492	YY50 004 32	P17668	—	2-015	Replacement O-rings	6
P14824	P30526	P16590	P30529	—	2-118		

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