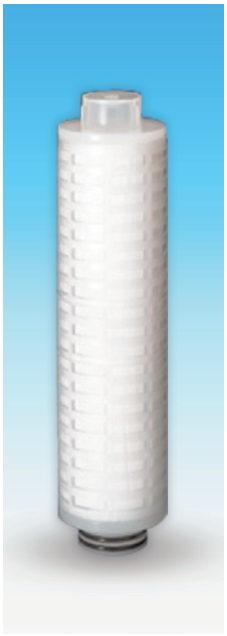
UltiKleen™ Excellar Filter and KC Assemblies

Data Sheet MEUKEXENa

Description

Pall's UltiKleen Excellar filter is constructed of the most technologically advanced non-dewetting all-fluoropolymer media that we offer to the semiconductor industry. This filter is specifically designed to handle the aqueous-based gasgenerating chemicals vital for wafer cleaning (SC-1, SC-2, and SPM).

The non-dewetting property of the UltiKleen Excellar filter is achieved using our proprietary MST (Molecular Surface Tailoring) technology to tailor the surface chemistry on a molecular scale. This method is unlike conventional coating- and grafting-based methods that can compromise chemical compatibility and purity. The advantage of MST is that the PTFE membrane remains robust and durable in highly corrosive acids, bases, and organic compounds.



UltiKleen Excellar Filter

UltiKleen Excellar KC Assemblies

Features & Benefits

- Non-dewetting PTFE membrane
- Provides increased tool uptime
- All fluoropolymer construction
- Provided completely prewet
- High temperature and pressure capabilities
- Very high flow rates
- Low differential pressure
- Manufactured in a cleanroom environment
- 100% integrity tested

Specifications

Materials of Construction

Components	Materials
Filter Medium	Surface-modified PTFE
Media Support	PTFE
Inner Core / Outer Cage	PFA
End Caps	PFA
Sealing Methods	Melt seal
O-ring (for cartridge)	FEP Encapsulated fluoroelastomer
Housing (for KC type)	PFA

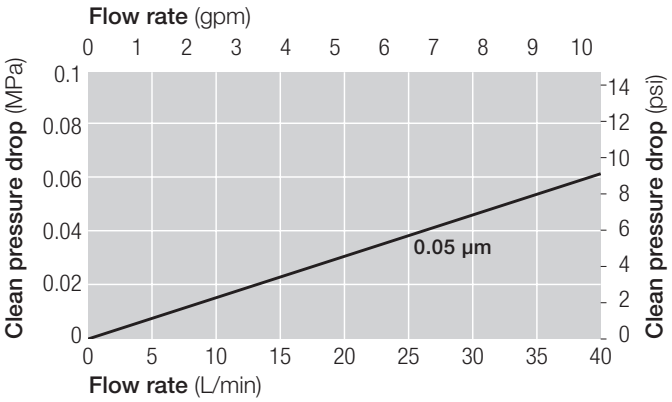
Removal Ratings and Operating Conditions

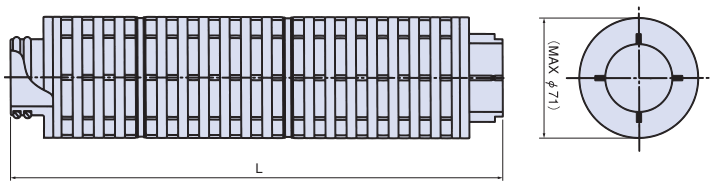
KC (Kleen-Change®) Assembly	
Removal Ratings	0.05 µm
Configurations	T flow, In-line
Filter Area	1.2 m² / 12.9 ft²
Maximum Operating Temperature	170 °C / 338 °F
Maximum Operating Pressure	0.49 MPaG < 25 °C / 71 psig < 77 °F 0.39 MPaG < 60 °C / 57 psig < 140 °F 0.34 MPaG < 90 °C / 49 psig < 194 °F 0.20 MPaG < 120 °C / 29 psig < 248 °F 0.15 MPaG < 150 °C / 22 psig < 302 °F 0.12 MPaG < 170 °C / 17 psig < 338 °F

Cartridge	
Removal Ratings	0.05 µm
Configurations	ABF1, MRF1
Filter Area	ABF1: 1.2 m² / 12.9 ft² MRF1: 1.1 m² / 11.8 ft²
Maximum Operating Temperature	170 °C / 338 °F
Maximum Forward differential pressure	0.59 MPa @ 50 °C / 85 psid @ 120 °F

UltiKleen™ Excellar Filter

Typical Flow Characteristics - 1cP fluid, 20 °C





Configurations	Nominal Cartridge Length	
	mm	inch
ABF1	286	11.2
MRF1	264	10.4

Part Numbers / Ordering Information

ABF1GP [1] 3EH1 [2]

MRF1GP [1] 25EH1 [2]

Table 1

Code	Removal Ratings
D	0.05 µm

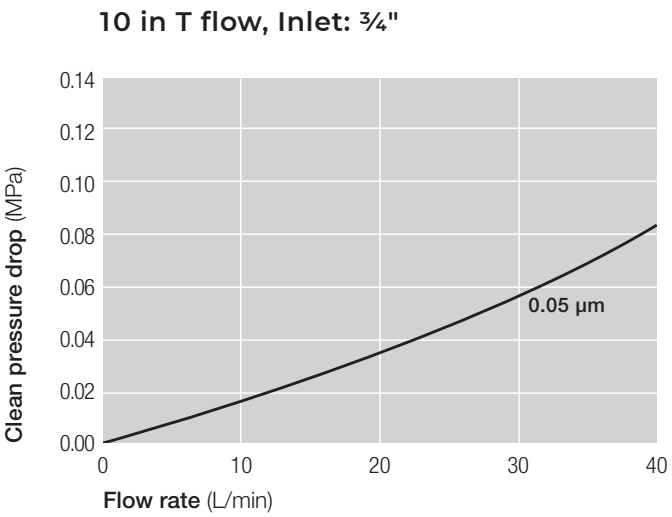
Table 2

Code	Prewet Option
-K3	Prewet filter (packaged in DI water)
-K7	Prewet filter (packaged in DI water), Low metal extractables[1]

[1] Please contact Pall on the extractable conditions

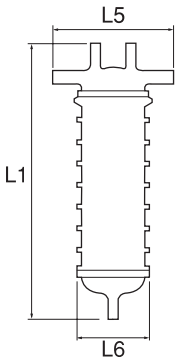
UltiKleen™ Excellar KC Assemblies

Typical Flow Characteristics - 1cP fluid, 20 °C

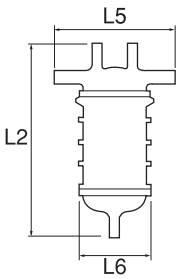


Dimensions

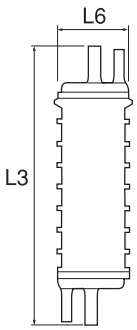
10 in T flow



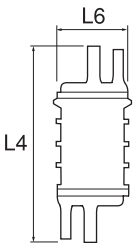
4 in T flow



10 in In-line



4 in In-line



Symbols	Nominal length (mm / in)
L1	416 mm / 16.4 in
L2	281 mm / 11.1 in
L3	430 mm / 16.9 in
L4	282 mm / 11.1 in
L5	180 mm / 7.1 in
L6	106 mm / 4.2 in

Part Numbers / Ordering Information

LDF [1] [2] GP [3] [4] E [5] [6]

Table 1

Code	Flow
T	T-flow
N	In-line

Table 2

Code	Cartridge Length
05	4 inch
1	10 inch

Table 3

Code	Removal Ratings
D	0.05 µm

Table 4

Code	Inlet / outlet	Vent / drain		Memo
		Head end	Bowl end	
6	3/8" male	1/4" male	1/4" male	In-line (5 in only)
8	1/2" male	1/4" male	1/4" male	T-flow
9	1/2" female	1/2" male	1/2" female	T-flow
12	3/4" male	1/2" male	1/2" male	T-flow
12	3/4" male	1/4" male	1/4" male	In-line
13	3/4" male	1/2" male	1/2" male	T-flow / In-line

Table 5

Code	Connections
0	No connection
1	20 Series (Flowell)
2	Super Pillar Type (Nippon Pillar)[2]
51	Flare style
6	FinalLock[3]
71	Super Pillar 300 P Series (Nippon Pillar)
72	Super Pillar 300 P Series L Type (Nippon Pillar)
8	60 Series (Flowell)
9	11CR Series (Flowell)

Table 6

Code	Prewet option
-K3	Prewet filter (packaged in DI water)
-K7	Prewet filter (packaged in DI water), low metal extractables[4]

[2] Pillar is a trademark of Nippon Pillar Packing Co.
[3] FinalLock is a trademark of Kurabo Industries Ltd.
[4] Please contact Pall on the extractable conditions.
[5] Part numbers in conbination with all codes are not always availbale. Please contact Pall for the part number availability.

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