

Liquatec®

Filter elements product catalog

Best solution in filtration

Edition 2013 (design by vanung university commercial design)







FOOD & BEVERAGES

- Sterile filters for removing organic impurities
- Quick couplings and fittings for food and beverage dispensing equipment in restaurants etc.
- Sterile vent filters for storage tanks and fermenters



PHARMACEUTICAL

- Protective filters for sensors and analysis equipment
- Fine filters for preparing dialysis water
- Quick couplings and fittings for medical equipment



ELECTRONICS INDUSTRY

- Ultrapure water filters for rinsing baths for electronic components
- Membrane filters for cleaning photovoltaic cells
- Fine filters for UV coatings for CDs and DVDs



WATER & PURIFICATION

- Prefilters for reverse osmosis systems and ion exchangers
- Centrifugal separators for degreasing baths in part-cleaning-systems
- Activated carbon filters for reducing odor and taste substances



PAINTS & COATINGS

- Polishing filters for quality control before filling drums
- Self-cleaning and cleanable filters for delivering raw materials
- Depth filters for removing colloidal impurities from coatings



CHEMICAL INDUSTRY

- Process filters for manufacturing chemical products
- Final filters for body lotions, hairsprays and nail polish
- Safety filters for retaining catalysts

Depth Series Filter

05 - 16

Super gard	07
Absolute gard	09
Thermal bonding	11
Wound gard	13
Nylon gard	15

Micro Series Pleated Filter Cartridge

17 - 26

Micro clean	19
Micro star	21
Micro panel	23
Micro fluoro	25

Ultra Series Pleated Filter Cartridge

27 - 34

Ultra clean	29
Ultra panel	31
Ultra fluoro	33

Extra Series Pleated Filter Cartridge

35 - 42

Extra clean	37
Extra panel	39
Extra fluoro	41

High Flow Series Pleated Filter Cartridge **43 - 50**

Max flow	45
Max pleated	47
Cross pleated	49

Disposable Filter **51 - 60**

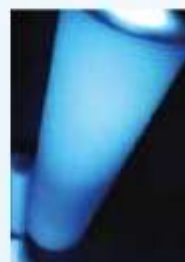
Capsule clean	53
Capsule panel	55
Capsule fluoro	57
OEC Capsule filter	59

Connector Code Comparison Table **61**

Conversion Table for Commonly Used **62**

Chemical resistance Comparison Table **63 - 76**

Company Branch Offices **77**





Depth Series Filter

Depth Series Filter

The depth filters relies on a graded-density provides excellent retention and loading capacity can be used to remove impurities from fluids.

A wide range of filter elements made of different materials and offer options to match your application filtration objectives.

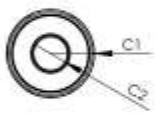

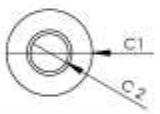

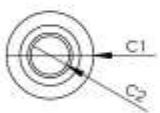
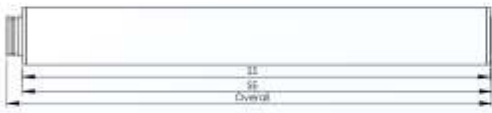
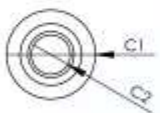
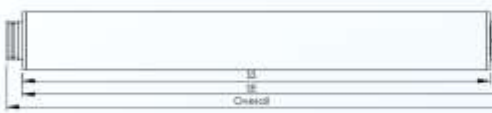
Super Gard: Nominal grade Melt-Blown PP micro fiber filter cartridges

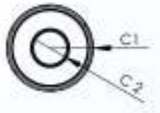
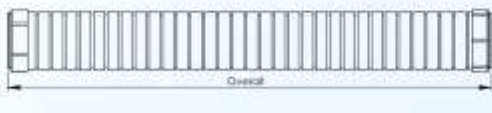


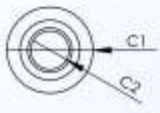

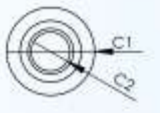

Absolute Gard: Absolute grade Melt-Blown PP micro fiber filter cartridges

Thermal Bonding: PP/PE bi-component fiber filter cartridges

Wound Gard: Wound cartridges made of polypropylene, cotton or glass fiber

Nylon Gard: Melt-Blown nylon micro fiber cartridges

Diameter	End Cap & Core number	Part of Measurement	10"	20"	30"	40"	C1	C2
		Overall(DO)	254	508	762	1016	67	26
		Overall(DO)	254	508	762	1016	63	33
		SS	236	490	744	998	63	33
		SE	237	491	745	999		
		Overall	254	508	762	1016		
		SS	193	447	701	955	63	33
		SE	237	491	745	999		
		Overall	254	508	762	1016		

Diameter	End Cap & Core number	Part of Measurement	10"	20"	30"	40"	C1	C2
		Overall(DO)	254	508	762	1016	67	26
		Overall(DO)	254	508	762	1016	63	33
		SS	236	490	744	998	63	33
		SE	237	491	745	999		
		Overall	254	508	762	1016		
		SS	193	447	701	955	63	33
		SE	237	491	745	999		
		Overall	254	508	762	1016		

Super gard



Description

Liquatec develops the Melt-Blown technology to meet the market requirements for a pure polypropylene depth filter with exceptional dirty-holding capability and performance. The structure of surface is an exceptional value for industry application where long life, low pressure drop and high efficiency required.

Specification

Micron Rating (Nominal Rating):

0.5, 1, 3, 5, 10, 25, 50, 75, 100 μm

Material of Construction:

100% Polypropylene Melt-Blown Micro-Denier fiber

Length: 9.87inches, 10inches, 20inches, 30inches, 40inches, 50inches

Outer Diameter: 63mm(2.48inches),

69mm(2.72inches), 83mm(3.27inches)

Inner Diameter: 28(1.1inches), 38mm(1.50inches)

Operation Conditions

Maximum operation pressure drop:

1.2 kg/cm²(17 psi) at 80°C(176°F)

2.1 kg/cm²(30 psi) at 60°C(140°F)

4.2 kg/cm²(59 psi) at 20°C(68°F)

Recommended replaceable pressure drop:

2.1 kg/cm²(30psi)

Maximum operation temperature: 80°C(176°F)

Benefits and Features

Nominal ratings from 0.5 to 100 μm

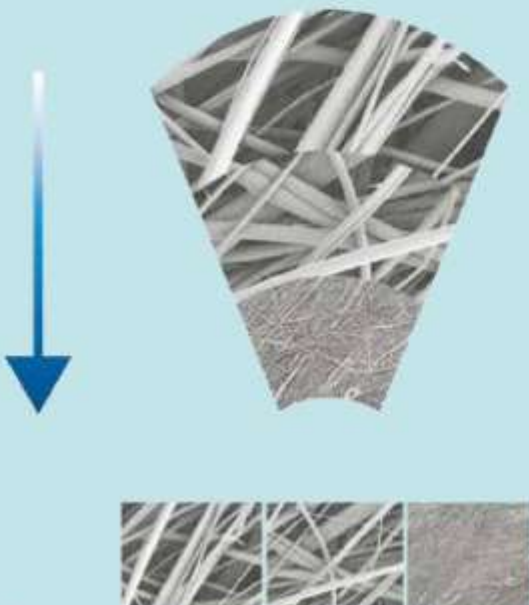
Continuously gradient pore structure increase capacity of dust

Surface fiber fortified to prevent fiber releasing
100% PP for compatibility for a wide range of process fluid

Formed by thermal bond without use any binder and adhesive

High strength and pressure resistance

Certificated by FDA CFR Title 21



Applications of Product

Food & Beverage

Electroplating, etching and image development processes in PCB industry

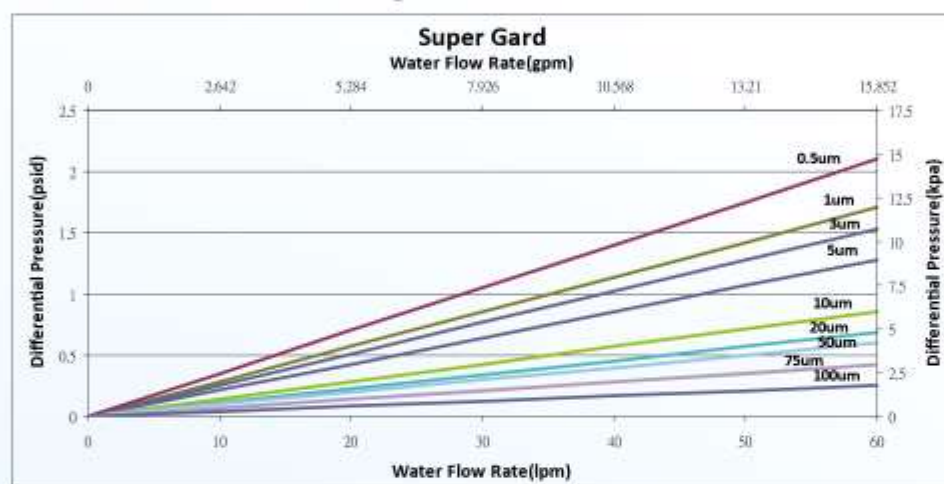
Filtration of electroplating fluid in conventional electroplating industry

Pre-filter of DI & RO water filtration system for industry

Filtration of medium & low viscosity fluids of chemical

Performance

Flow Rate VS Pressure Drop



Code Principle

SG	C	B	D10	0254	E	DO	P
Product Name	OD(mm)	ID(mm)	Rating(um)	Length(mm)	O-ring	Code Number	Inner Core
Super Gard	B : 61	B : 28	B50 : 0.5	0251	E : EPDM	DO : Double Open	P :
	C : 63	C : 38	C10 : 1	0254	S : Silicone	DB : Double Blue cap	With Inner Core
	D : 69		C30 : 3	0508	V : Viton	2C : 222/Cap	N :
	N : 83		C50 : 5	0762	T : PFA encapsulate viton	2S : 222/Spear	No Inner Core
			D10 : 10	1016	X : non o-ring	6C : 226/Cap	
			D20 : 20	1270	A : EVA(two-sided)	6S : 226/Spear	
			D30 : 30		B : EVA(one-sided)		
			D40 : 40				
			D50 : 50				
			D75 : 75				
			E10 : 100				

Absolute gard



Description

Liquatec develops the Melt-Blown technology to meet the market requirements for a pure polypropylene depth filter with exceptional dirty-holding capability and performance. The structure of surface is an exceptional value for industry application where long life, low pressure drop and high efficiency required.

Specification

Micron Rating (Absolute Rating 99.9%):

1, 3, 5, 10, 25, 50, 75, 100 μm

Material of Construction:

100% Polypropylene Melt-Blown Micro-Denier fiber

Length: 9.87inches, 10inches, 20inches, 30inches, 40inches, 50inches

Outer Diameter: 63mm(2.48inches),

69mm(2.72inches), 83mm(3.27inches)

Inner Diameter: 28mm(1.1inches),

38mm(1.50inches)

Operation Conditions

Maximum operation pressure drop:

1.2 kg/cm²(17 psi) at 80°C(176°F)

2.1 kg/cm²(30 psi) at 60°C(140°F)

4.2 kg/cm²(59 psi) at 20°C(68°F)

Recommended replaceable pressure drop:

2.1 kg/cm²(30psi)

Maximum operation temperature: 80°C(176°F)

Benefits and Features

Absolute ratings from 1 to 100 μm

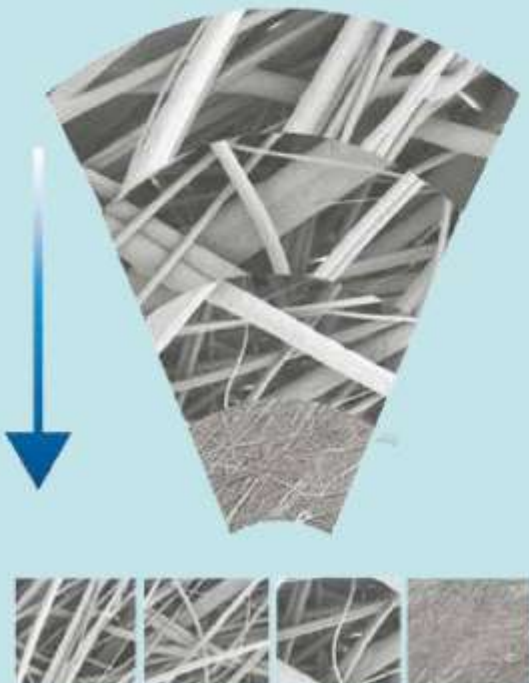
Continuously gradient pore structure increase capacity of dust

Surface fiber fortified to prevent fiber releasing
100% PP for compatibility for a wide range of process fluid

Formed by thermal bond without use any binder and adhesive

High strength and pressure resistance

Certificated by FDA CFR Title 21



Applications of product

Food & Beverage

Electroplating, etching and image development processes in PCB industry

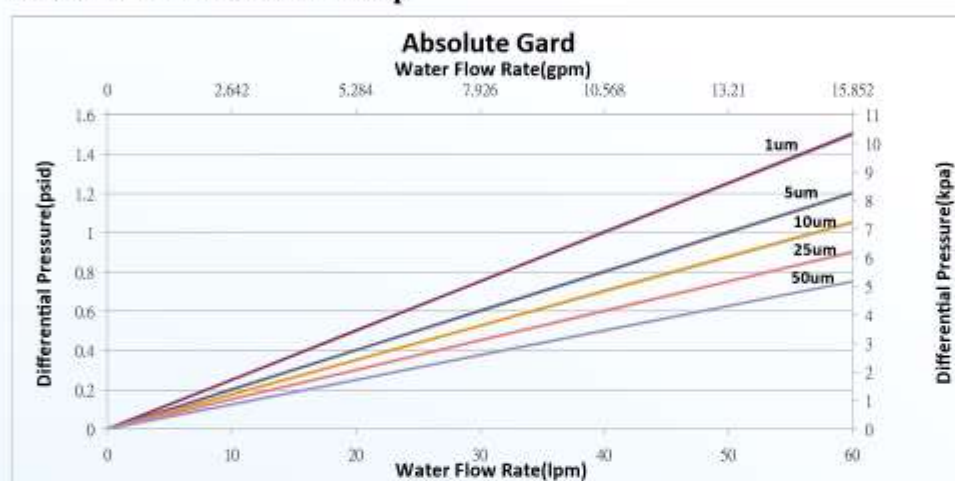
Filtration of electroplating fluid in conventional electroplating industry

Pre-filter of DI & RO water filtration system for industry

Filtration of medium & low viscosity fluids of chemical

Performance

Flow Rate VS Pressure Drop



Code Principle

AG	C	B	D10	0254	E	DO	P
Product Name	OD(mm)	ID(mm)	Rating(um)	Length(mm)	O-ring	Code Number	Inner Core
Absolute Gard	B : 61	B : 28	B50 : 0.5	0251	E : EPDM	DO : Double Open	P :
	C : 63	C : 38	C10 : 1	0254	S : Silicone	DB : Double Blue cap	With Inner Core
	D : 69		C30 : 3	0508	V : Viton	2C : 222/Cap	N :
	N : 83		C50 : 5	0762	T : PFA encapsulate viton	2S : 222/Spear	No Inner Core
			D10 : 10	1016	X : non o-ring	6C : 226/Cap	
			D20 : 20	1270	A : EVA(two-sided)	6S : 226/Spear	
			D30 : 30		B : EVA(one-sided)		
			D40 : 40				
			D50 : 50				
			D75 : 75				
			E10 : 100				

Thermal bonding



Description

TB filter manufacturing utilizes the most advanced technology to produce a clean, rigid filter structure. The filter is constructed with the skin- core long bicomponent fibers, and the fibers are thermally bonded with high temperature. The high degree of fiber- to- fiber bonding provides a rigid structure that no need a core support and any possibility of media migration.

Specifications

Micron Rating : 0.5, 1, 3, 5, 10, 20, 30, 40, 50, 75, 100, 150 μm (Water)
 Materials of Construction :
 Filter Medium : PP/PE
 Outer Diameter : 63~65mm
 Inner Diameter : 30mm
 Length : 250, 500, 750, 1000mm

Operation Conditions

Maximum forward differential pressure :
 5.62kg/cm² (80 psi) at 24°C(75°F)
 Maximum operating temperature : 80°C(175°F)

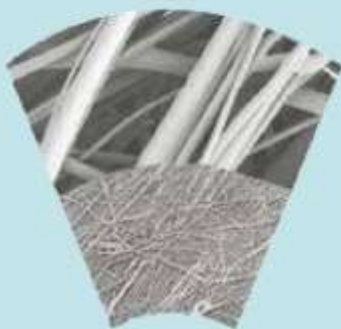
Benefits and Features

Product provides consistent filtration from start to finish

The filter is constructed using filament won't release fiber caused liquid contamination

The rigid structure suit for highly viscous liquid

The porous outer layer and dense inner layer structure ensures high service life



Fiber bonding



Bi-Component Fibers

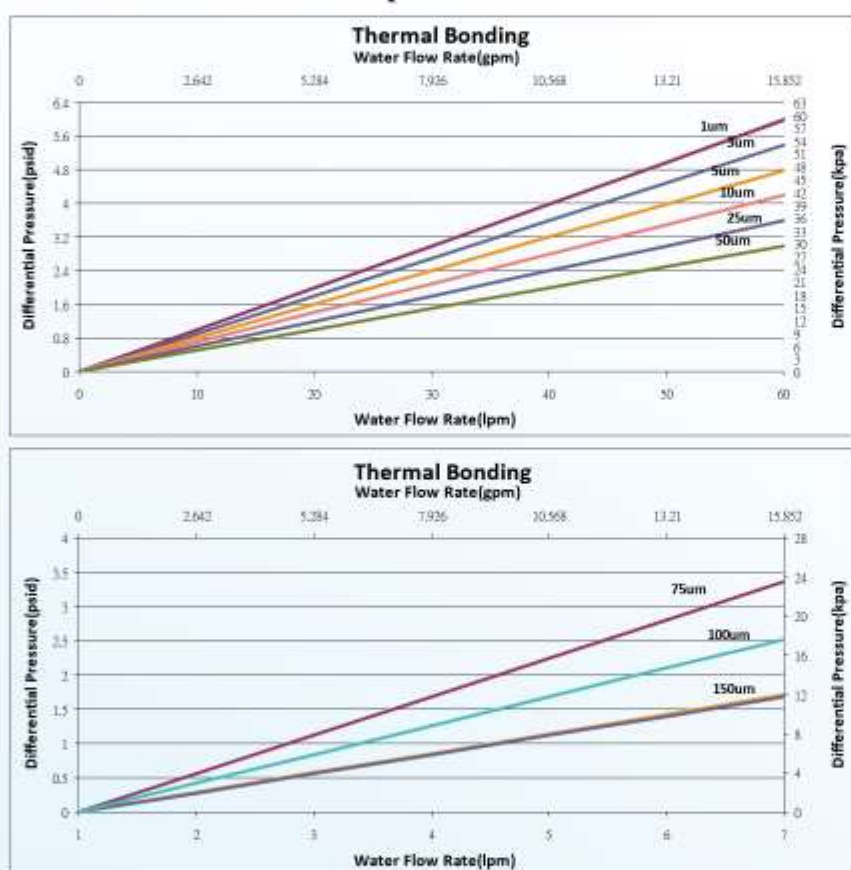


Applications

Food & Beverage : Clarification
 Coating : Clarification
 Coater : Gel filtration
 Ink : Clarification
 Chemical Solution : Clarification.
 Watertreatment : Pre RO, Cooling water.

Performance

Flow Rate VS Pressure Drop



Code Principle

TB	C	B	D10	O254	E	DO	P
Product Name	OD(mm)	ID(mm)	Rating(um)	Length(mm)	O-ring	Code Number	Inner Core
Thermal Bonding	B : 61	B : 28	B50 : 0.5	0251	E : EPDM	DO : Double Open	P :
	C : 63	C : 38	C10 : 1	0254	S : Silicone	DB : Double Blue cap	With Inner Core
	D : 69		C30 : 3	0508	V : Viton	2C : 222/Cap	N :
	N : 83		C50 : 5	0762	T : PFA encapsulate viton	2S : 222/Spear	No Inner Core
			D10 : 10	1016	X : non o-ring	6C : 226/Cap	
			D25 : 25	1270	A : EVA(two-sided)	6S : 226/Spear	
			D50 : 50		B : EVA(one-sided)		
			D75 : 75				
			E10 : 100				

Wound gard

Description

Wound Gard filter cartridges provide good dirt-holding capacity and diverse range of removal ratings thereby graded pore structure. Honeycomb shaped voids, typically of conventional wound string filters are avoided, and there are no short fibers that can break away as loose bits. Dirt holding capacity and filter life is said to be about double that of conventional wound filters and pressure drop is halved.

Specification

Micron Rating: 1, 3, 5, 10, 30, 40, 50, 75, 100 μm

Materials of Construction:

Filter Medium: polypropylene, cotton and glassfiber

Center Core: polypropylene, 304 stainless steel and 316 stainless steel

Outer Diameter: 63mm(2.5"), 110mm(4.5")

Inner Diameter: 28mm(1.1"), 30mm(1.2")

Operation Conditions

Maximum operating temperature:

Polypropylene with stainless steel cores :93°C(200°F)

Polypropylene with polypropylene cores :49°C(120°F)

Cottonwith stainless steel cores: 121°C(250°F)

Cottonwith stainless steel cores: 49°C (120°F)

Recommended replaceable pressure drop:

2.5kg/cm²(30psi)

Maximum operating forward pressure drop:

4.5kg/cm²(30psi)

Benefits and Features

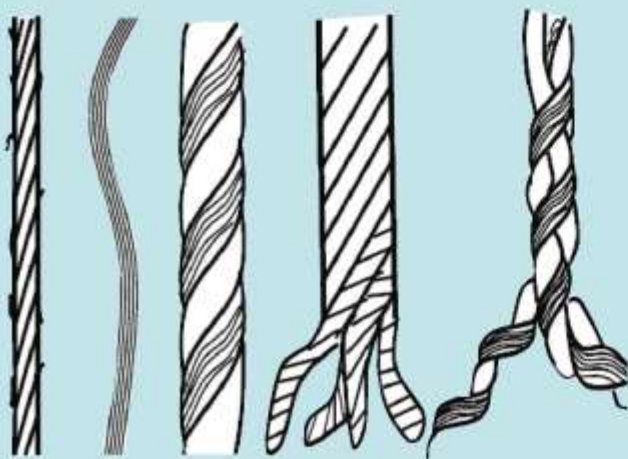
Optional core covers available to assure fiber migration

Various cartridge sealing options

Graded pore structure for efficient removal of wide range of partical sizes

Board chemical compatibility for variety of applications

Cartridges fit all standard housings

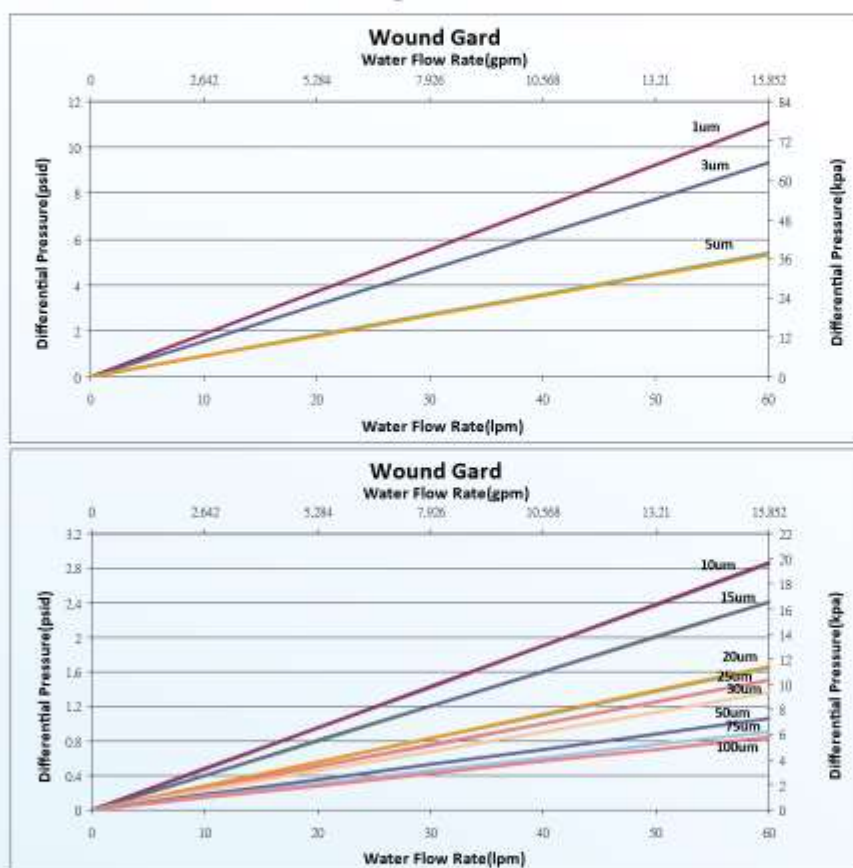


Applications of product

Animal & Vegetables Oils
Concentrated Alkalies
Dilute Acids & Alkalies
Organic Acids & solvents
Petroleum Oils
Potable Liquids
Oxidizing Agents

Performance

Flow Rate VS Pressure Drop



Code Principle

WG	C	B	D10	1	P	P
Product Name	OD(mm)	ID(mm)	Rating(um)	Length(inches)	Inner Core	Material
Wound Gard	B : 61 D : 63 E : 110	B : 28 C : 30	B50 : 0.5 C10 : 1 C30 : 3 C50 : 5 D10 : 10 D20 : 20 D30 : 30 D40 : 40 D50 : 50 D75 : 75 E10 : 100	1 : 10" 2 : 20" 3 : 30" 4 : 40" A : 9.87" B : 19.5" C : 29.5" D : 39.5"	P : Polypropylene S : SS 304 T : SS316	P : PP C : Cotton G : Glass Fiber D : Sterilization Cotton Q : Sterilization PP

Nylon gard

Description

Nylon Gard depth filter cartridge relies on a graded-density provides excellent retention and loading capacity can be used to remove impurities from fluids. The filter is made of nylon micro fiber so the filter provides superior solvent and temperature resistance.

Specification

Micron Rating (Absolute Rating 99.9%):

2, 3, 5, 10, 25, 50, 75, 100 μm

Material of Construction:

100% Nylon Melt-Blown Micro-Denier fiber

Core & End cap Material: Nylon

Length: 9.87inches, 10inches, 20inches, 30inches, 40inches

Outer Diameter:

63mm(2.48inches), 69mm(2.72inches)

Inner Diameter: 28mm(1.1inches)

Operation Conditions

Maximum operation pressure drop:

1.75kg/cm²(25 psi) at 93°C(200°F)

3.5kg/cm²(50 psi) at 71°C(160°F)

6.3 kg/cm²(90 psi) at 32°C(90°F)

Maximum operation temperature: 120°C

Benefits and Features

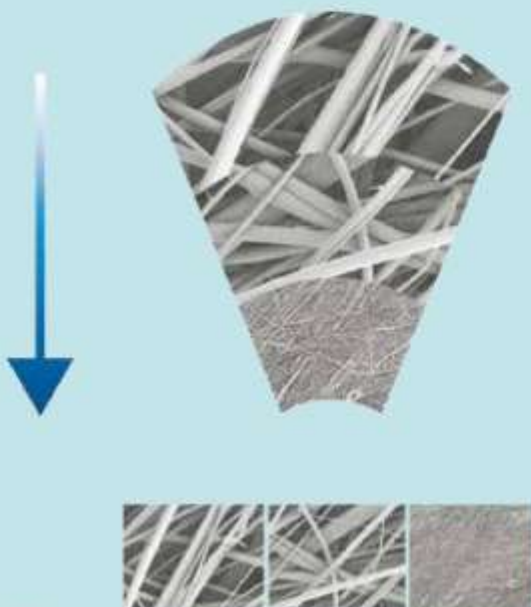
Absolute ratings from 2 to 100 μm

Continuously gradient pore structure increase capacity of dust

Surface fiber fortified to prevent fiber releasing

100% nylon construction provides superior solvent and temperature resistance

Formed by thermal bond without use any binder and adhesive

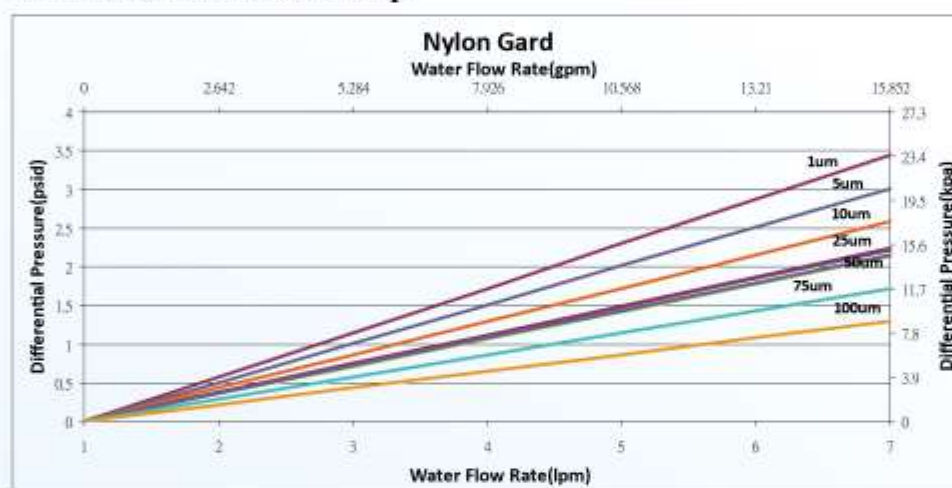


Applications of product

Solvent
Fine Chemicals
Plating Solution
Process Water
Beverages
Ink Jets
Parts Cleaning
Dyes

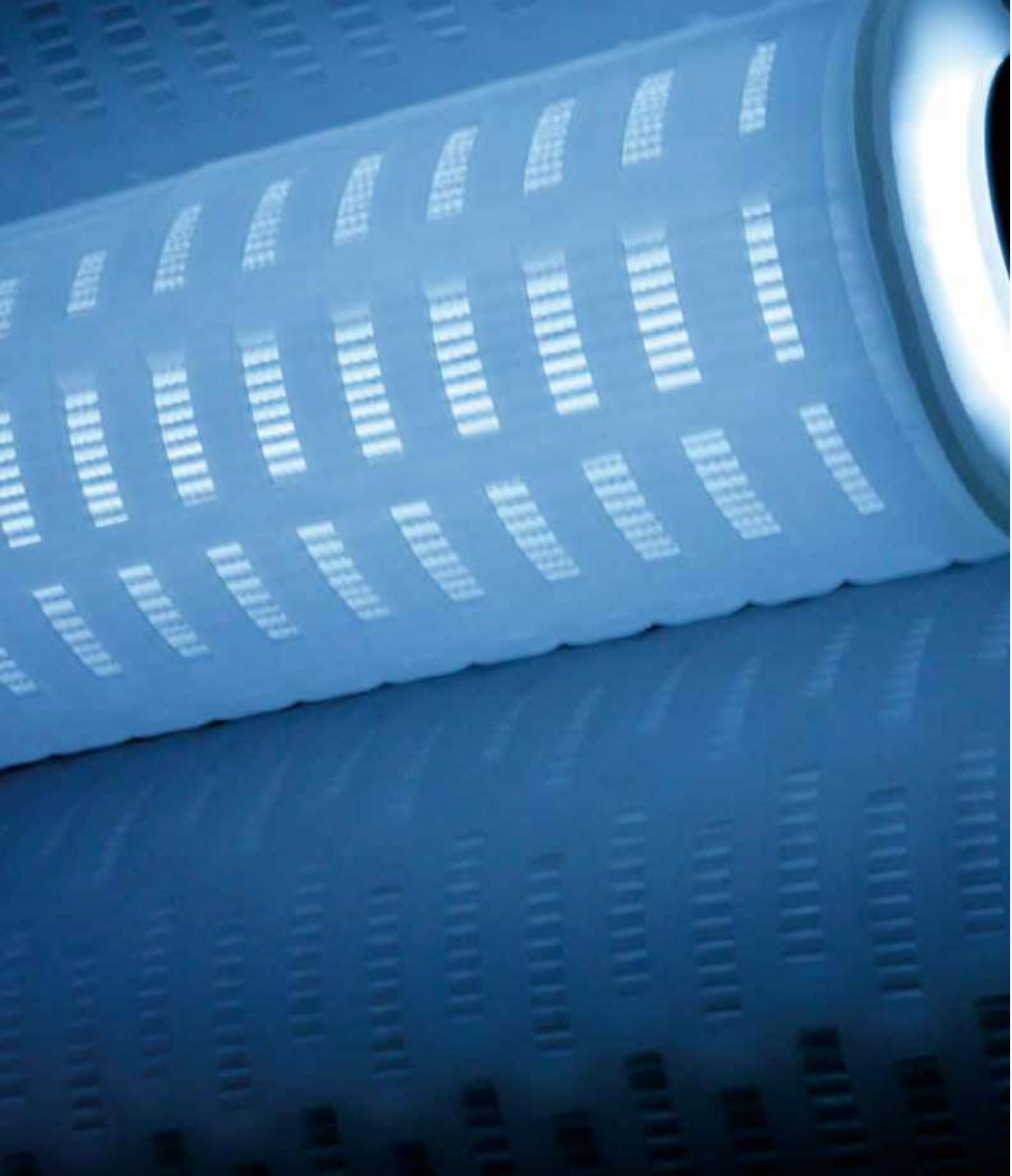
Performance

Flow Rate VS Pressure Drop



Code Principle

NG	C	B	C10	0254	X	DO	P
Product Name	OD(mm)	ID(mm)	Rating(um)	Length(mm)	O-ring	Code Number	Inner Core
Nylon Gard	B : 61 C : 63 D : 69 N : 83	B : 28 C : 38	B50 : 0.5 C10 : 1 C30 : 3 C50 : 5 D10 : 10 D20 : 20 D30 : 30 D40 : 40 D50 : 50 D75 : 75 E10 : 100	0251 0254 0508 0762 1016 1270	E : EPDM S : Silicone V : Viton T : PFA encapsulate viton X : non o-ring A : EVA(two-sided) B : EVA(one-sided)	DO : Double Open 2C : 222/Cap 2S : 222/Spear 6C : 226/Cap 6S : 226/Spear DB : Double Blue cap	P : With Inner Core N : No Inner Core



Micro Series Pleated Filter Cartridge

Micro Series Pleated Filter Cartridge

The Micro Series filters are standard pleated filter cartridges.

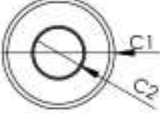
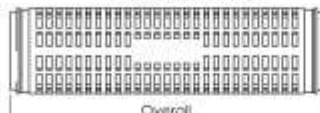
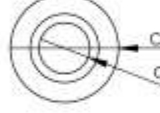
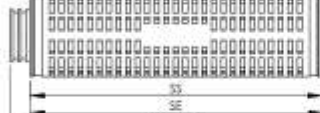

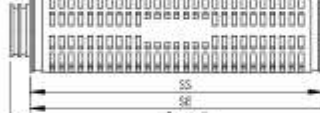

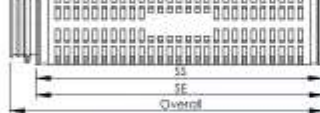





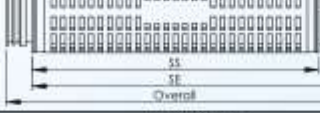




The filters are available in three filter media types: polypropylene, polyethersulfone, and PTFE and removal rating from 0.05um to 70um. You can easily select the appropriate filter media and the rating for each fluid.

Micro Clean: Melt-Blown PP micro fiber filter cartridges

Micro Star: Pleated -Depth all polypropylene filters, suit for the removal of gels

Micro Panel: Polyethersulfone membrane filter cartridges

Micro Fluoro: PTFE membrane filter cartridges

Diameter	End Cap & Core number	Part of Measurement	10"	20"	30"	40"	C1	C2
	 DO : Double Open	Overall(TO)	250	490	730	970	69	29
		Overall(DO)	250	508	762	1016		
	 2C : 222/Cap	SS	239	479	720	962	69	29
		SE	240	480	721	963		
		Overall	257	497	738	980		
	 2S : 222/Spear	SS	240	481	723	962	69	29
		SE	284	525	767	1006		
		Overall	301	542	784	1023		
	 6C : 226/Cap	SS	242	479	698	937	69	29
		SE	244	481	700	939		
		Overall	263	501	743	981		
	 6S : 226/Spear	SS	242	481	724	964	69	29
		SE	286	525	768	1008		
		Overall	308	547	790	1030		
	 2F : 222(Autoclavable)/Cap	SS	242	479	698	937	69	29
		SE	244	481	700	939		
		Overall	266	501	743	981		
	 2B : 222(Autoclavable)/Spear	SS	242	481	724	964	69	29
		SE	286	525	768	1008		
		Overall	308	547	790	1030		
	 6F : 226/Cap	SS	240	480	699	938	69	29
		SE	241	481	700	939		
		Overall	270	510	752	990		
	 6B : 226/Spear	SS	242	481	724	964	69	29
		SE	286	525	768	1008		
		Overall	315	555	798	1036		

Micro clean



Description

Micro Clean Filter employ a Melt-Blown pp micro filter with 100% polypropylene support and porous outside/inside cage .

The Micro Clean Filter provides superior flow rates and dirty holding capacity due to the multiple layered construction .

Filter cartridges are using the welding techniques and manufactured in cleaning room enable the smallest contaminant extraction and higher durability .

Specification

Micron Rating:

0.2µm, 0.45µm, 1µm(plus: absolute)

2.5µm, 5µm, 10µm, 20µm, 40µm, 70µm(absolute)

Material of Construction:

Medium:Melt-Blown PP micro filter

Core, cage and endcaps: Polypropylene

Support and drainage: Polypropylene

Length:10~40 inches

Outer Diameter :69mm

Inner Diameter :28mm

Operation Conditions

Maximum operating temperature:

95°C/203°F

Maximum operating forward pressure drop:

2.81kg/cm² (40 psi) at 82°C(180°F)

5.62kg/cm² (80 psi) at 24°C(75°F)

Benefits and Features

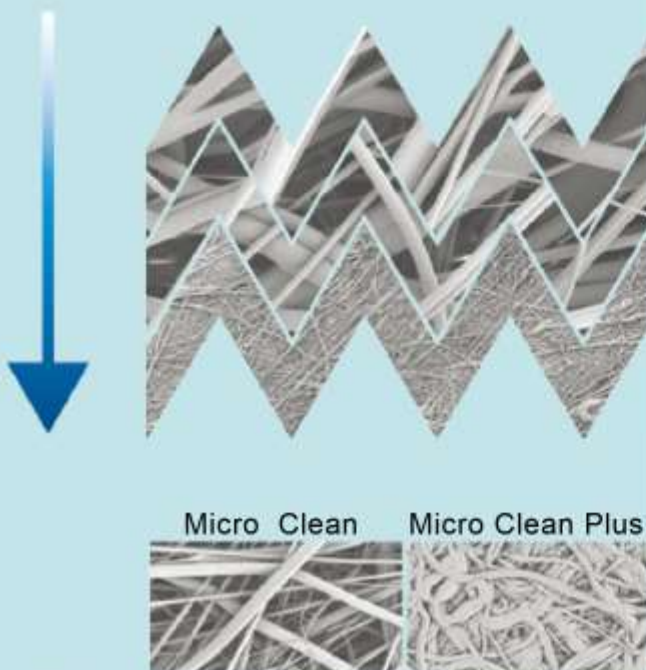
All polypropylene media and construction meet a broad range of performance requirements

High contaminant holding capacity

No extractable, ensure superior downstream cleanliness.

Superior retention of colloids and particles ensure low particle counts to protect your process

Fits most available housings

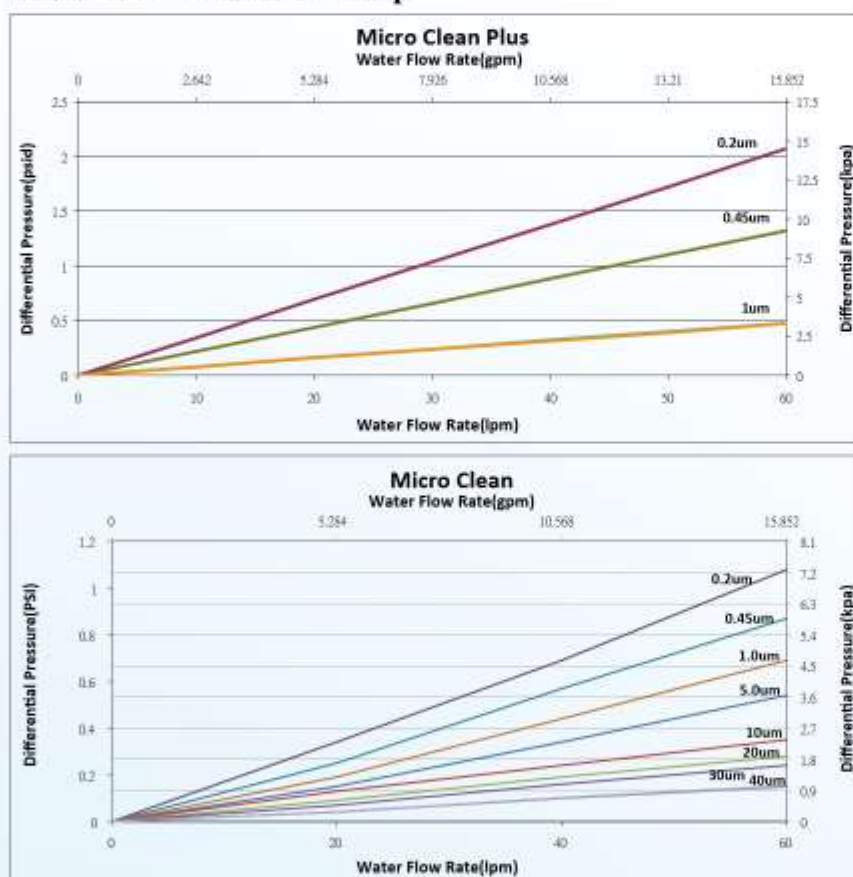


Applications of product

TFT-LCD: wet etching, stripping, developer, cleaning
 TN/STN: wet etching, stripping, developer, cleaning
 Color Filter: wet etching, stripping, developer, cleaning
 Beverage/Wine clarification
 RO/DI Pre-filtration

Performance

Flow Rate VS Pressure Drop



Code Principle

MC	S	D10	1	E	DO	A	-H
Product Name	Grade	Rating(um)	Length	O-ring	Code Number	Pre-flush	Special
Micro Clean	S: Standard P: Plus	B20 : 0.2 B50 : 0.5 C10 : 1 C30 : 3 C50 : 5 D10 : 10 D20 : 20 D30 : 30 D40 : 40 D50 : 50 D75 : 75 E10 : 100	A : 5" 1 : 10" 2 : 20" 3 : 30" 4 : 40"	E : EPDM S : Silicone V : Viton T : PFA encapsulate viton	DO : Double Open (full length) TO : Double Open 2C : 222/Cap 2S : 222/Spear 6C : 226/Cap 6S : 226/Spear 2F : 222(with tabs,Autoclavable)/Cap 2B : 222(with tabs,Autoclavable)/Spear 6F : 226(with tabs,Autoclavable)/Cap 6B : 226(with tabs,Autoclavable)/Spear	A : pre-flush with DI water N : Non pre-flush	-H : Alcohol soaked

Micro star



Description

Micro Star filter is an innovative synthesis of depth and pleated technologies. This product combines the high flow capacity and low pressure loss of pleated filters with the gel retention capability and long life of a depth filter. Micro Star is thermally bonded from 100% virgin polypropylene to ensure clean filtrates and excellent chemical and thermal compatibility in the most stringent of processing conditions.

Specification

Micron Rating: 0.45, 1,3, 5, 10, 20,30,40µm

Materials of Construction:

Filter Medium: Polypropylene

Core, cage and endcaps: Polypropylene

Support and drainage: Polypropylene

Outer Diameter: 69mm(2.7inches)

Inner Dimension: 28mm(1.1inches)

Length: 10inches, 20inches, 30inches, 40inches

Operation Conditions

Maximum operating forward pressure drop:

2.81kg/cm² (7 psi) at 95°C(203°F)

5.62kg/cm² (15 psi) at 30°C(86°F)

Maximum operating temperature: 95°C(203°F)

Biological Safety:

Autoclaved for 10cycles of 30 minutes at

126°C(259°F)

Benefits and Features

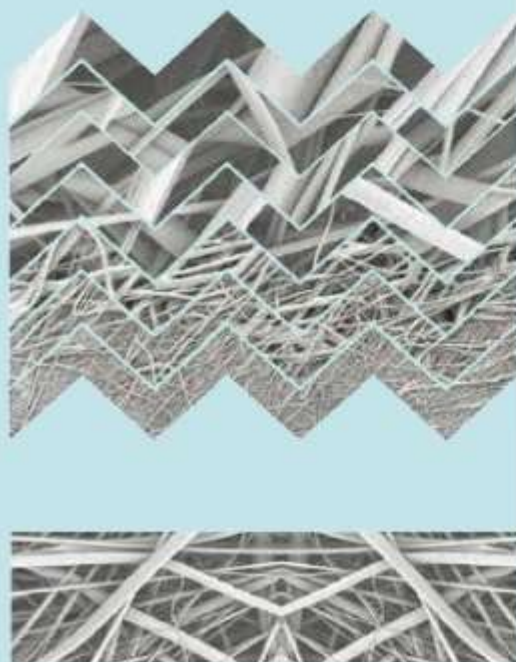
Optimized media structure improved dispersion classification

Thick media structure make excellent gel retention possible

No extractable, ensure superior downstream cleanliness

Superior retention of colloids and particles ensure low particle counts to protect your process

Fits most available housings



Applications of product

Photoresist residue removers

TN/STN: wet etching, stripping, developer, cleaning

Color Filter: wet etching, stripping, developer, cleaning

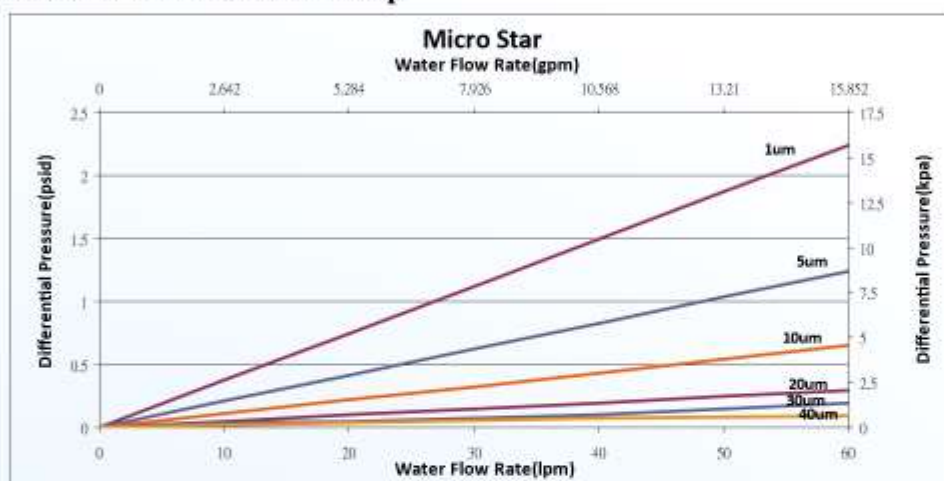
Beverage/Wine clarification

Solvent clarification

Ink clarification

Performance

Flow Rate VS Pressure Drop



Code Principle

MS	S	D10	1	E	DO	A	-H
Product Name	Grade	Rating(um)	Length	O-ring	Code Number	Pre-flush	Special
Micro Star	S : Standard	C10 : 1	A : 5"	E : EPDM	DO : Double Open (full length)	A : pre -flush	-H : Alcohol
		C30 : 3	1 : 10"	S : Silicone	TO : Double Open	with DI water	soaked
		C50 : 5	2 : 20"	V : Viton	2C : 222/Cap	N : Non	
		D10 : 10	3 : 30"	T : PFA	2S : 222/Spear	pre -flush	
		D20 : 20	4 : 40"	encapsulate	6C : 226/Cap		
		D30 : 30		viton	6S : 226/Spear		
		D40 : 40			2F : 222(with tabs,Autoclavable)/Cap		
					2B : 222(with tabs,Autoclavable)/Spear		
					6F : 226(with tabs,Autoclavable)/Cap		
					6B : 226(with tabs,Autoclavable)/Spear		

Micro panel



Description

Micro Panel cartridges are constructed by Polyethersulfone membrane and polypropylene (support, core and end cap). Micro Panel's unique mirrored-anisotropic PES membrane has exceptionally high flow rates and long on-stream life, and provides consistent removal of both organic and inorganic particulates.

Specification

Micron Rating:

0.03, 0.1, 0.2, 0.45, 1.2 μ m (Water)

0.01, 0.02, 0.005 μ m (Air)

Materials of Construction:

Core, cage and endcaps: Polyethersulfone

Support and drainage: Polypropylene

Outer Diameter: 69mm (2.7 inches)

Inner Diameter: 28mm (1.1 inches)

Operation Conditions

Maximum operating forward pressure drop:

2.81kg/cm² (40 psi) at 82°C (180°F)

5.62kg/cm² (80 psi) at 24°C (75°F)

Maximum operating temperature: 95°C (203°F)

Biological Safety: Autoclaved for 10 cycles of 30 minutes at 126°C (102°F)

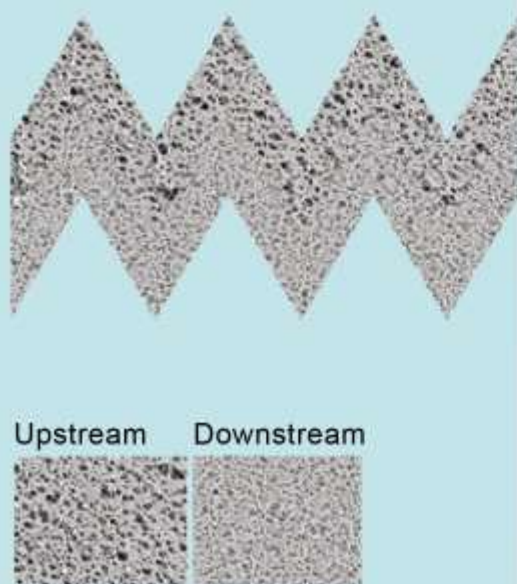
Benefits and Features

The highly porous asymmetric membrane that ensure lower pressure drop and extended service time. Polypropylene supports provide clean and durable performance.

The filter element is manufacture in clean room.

Pre-flush 30 minutes with RO/DI water.

End caps and connectors are sealed by thermal bond, free binder.

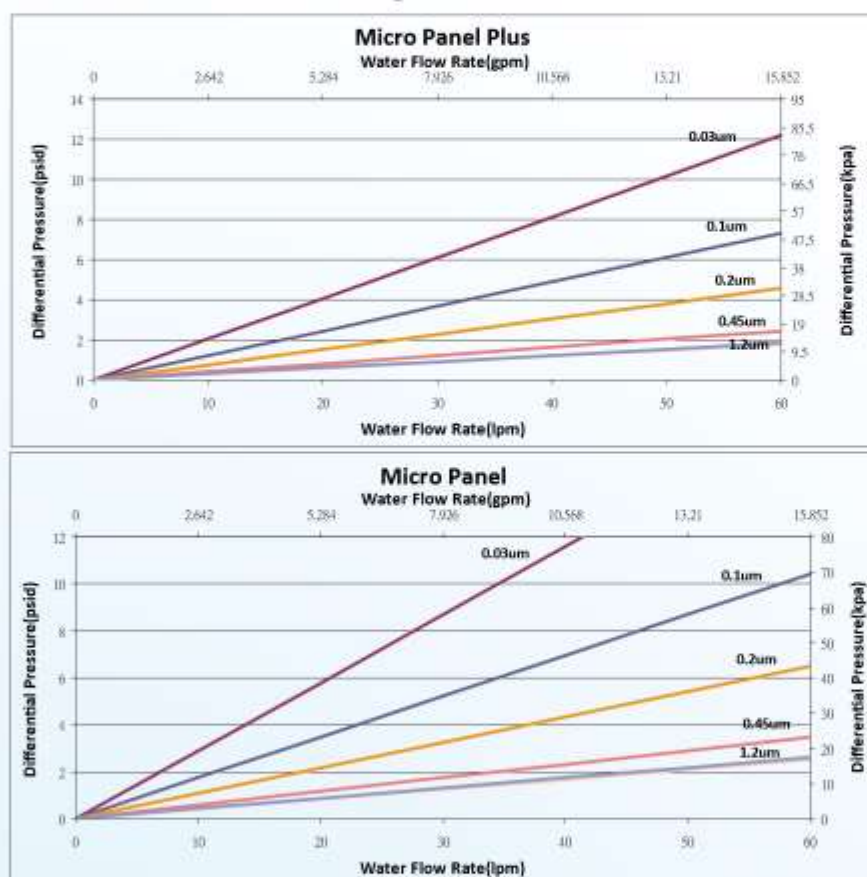


Applications of product

TFT-LCD: wet etching, stripping, cleaning
 TN/STN: wet etching, stripping, developer, cleaning
 Color Filter: wet etching, stripping, developer, cleaning
 Beverage/Wine clarification
 Chemical processing
 Solvent filtration

Performance

Flow Rate VS Pressure Drop



Code Principle

MP	S	D10	1	E	DO	A	A	-H
Product Name	Grade	Rating(um)	Length	O-ring	Code Number	Pre-flush	Integrity Test	Special
Micro Panel	S: Standard	A30 : 0.03	A : 5"	E : EPDM	DO : Double Open (full length)	A : pre-flush	N : Non Test	-H : Alcohol
	P: Plus	B10 : 0.1	1 : 10"	S : Silicone	TO : Double Open	with DI water	A : Bubble Test	soaked
	E: Extra	B20 : 0.2	2 : 20"	V : Viton	2C : 222/Cap	N : Non		
		B45 : 0.45	3 : 30"	T : PFA	2S : 222/Spear	pre-flush		
		C12 : 1.2	4 : 40"	encapsulate viton	6C : 226/Cap			
					6S : 226/Spear			
					2F : 222(with tabs,Autoclavable)/Cap			
					2B : 222(with tabs,Autoclavable)/Spear			
					6F : 226(with tabs,Autoclavable)/Cap			
					6B : 226(with tabs,Autoclavable)/Spear			

Micro fluoro

Description

Micro Fluoro is a highly chemically-resistance cartridge owing to its use of PTFE membrane and polypropylene support.

Liquatec's unique PTFE membrane construction serves as a low-cost alternative to all fluoropolymer cartridge in less aggressive application and maintains broad chemical compatibility with low extractable levels and high particle retention rates.

Specification

Micron Rating: 0.05, 0.1, 0.2, 0.45, 1,3µm

Materials of Construction:

Filter Medium: hydrophobic PTFE membrane

Core, cage and endcaps: Polypropylene

Support and drainage: Polypropylene

Outer Dimension: 69mm

Inner Dimension: 28mm

Operation Conditions

Maximum operating forward pressure drop:

2.8 kg/cm² (40 psi) at 82°C(108°F)

5.6 kg/cm² (80 psi) at 20°C(68°F)

Maximum operating temperature: 95°C(203°F)

Biological Safety:

Autoclaved for 10cycles of 30minutes at 126°C(259°F)

Benefits and Features

Highly flow rate reduces processing time

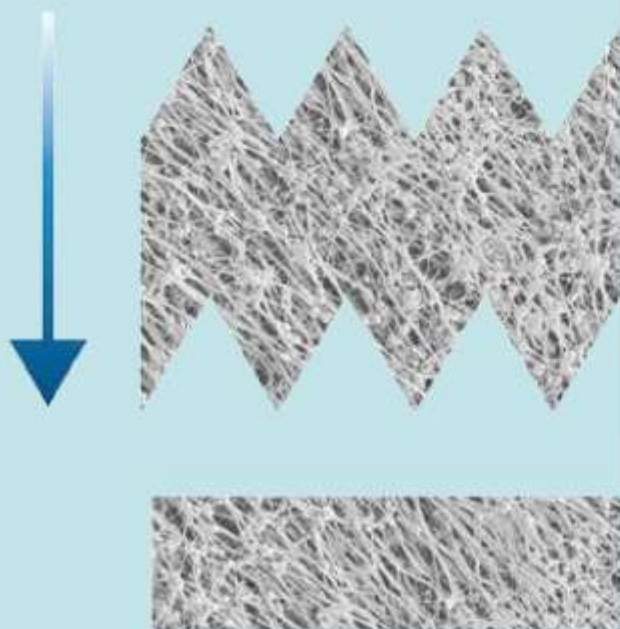
Low extractable shortens start-up time

Excellent chemical compatibility for use in most application

Longer life reduces the cost of filtration

End cap and connector are sealed by thermal bond, free binder

Manufactured in clean room, highly clean cartridge

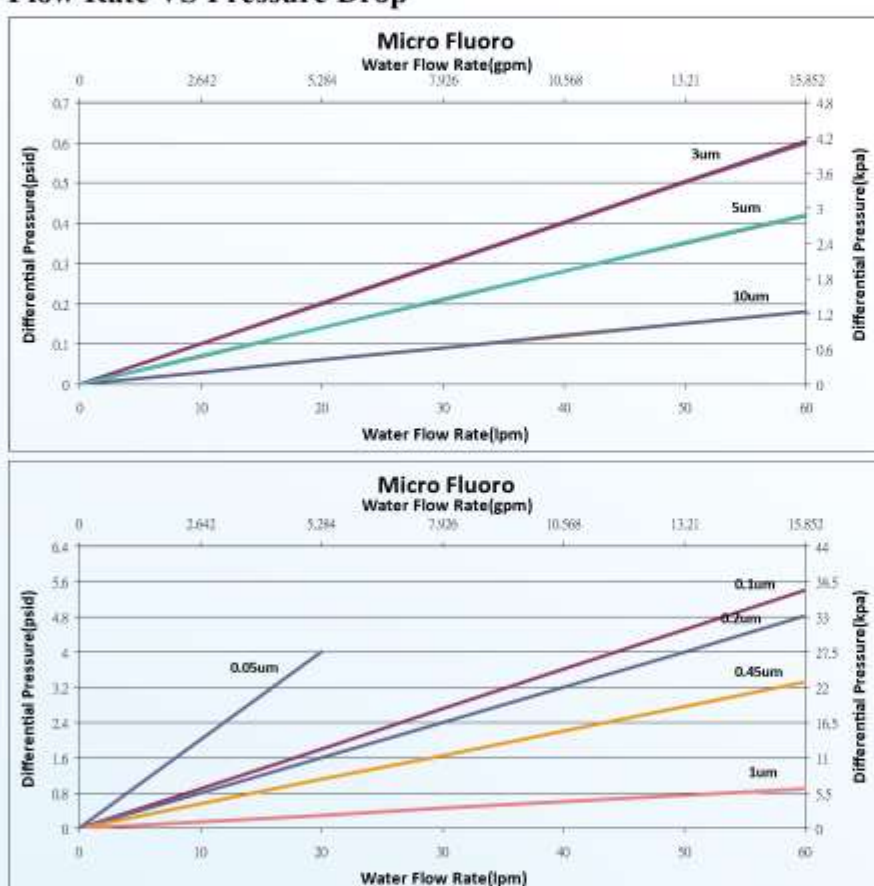


Applications of product

Filtration of strong acid, base solution, solvent and DI-water under 80°C which are used in wet etching, solvents stripping, and cleaning manufacturing process of LCD factory
 Filtration of CD-R and DVD-R factory
 Thermal fine filtration of DI water system
 Filtration of chemical delivery system for special photo electrochemical

Performance

Flow Rate VS Pressure Drop



Code Principle

MF	S	D10	1	E	DO	A	A	-H
Product Name	Grade	Rating(um)	Length	O-ring	Code Number	Pre-flush	Integrity Test	Special
Micro Fluoro	S : Standard	A50 : 0.05	A : 5"	E : EPDM	DO : Double Open (full length)	A : pre-flush	N : Non Test	-H : Alcohol
	J : Hydrophobic	B10 : 0.1	1 : 10"	S : Silicone	TO : Double Open	with DI water	A : Bubble Test	soaked
	PTFE	B20 : 0.2	2 : 20"	V : Viton	2C : 222/Cap			
	W : Hydrophilic	B45 : 0.45	3 : 30"	T : PFA	2S : 222/Spear	N : Non pre-flush		
	PTFE	C10 : 1	4 : 40"	encapsulate viton	6C : 226/Cap			
		C30 : 3			6S : 226/Spear			
		C50 : 5			2F : 222(with tabs,Autoclavable)/Cap			
		D10 : 10			2B : 222(with tabs,Autoclavable)/Spear			
					6F : 226(with tabs,Autoclavable)/Cap			
					6B : 226(with tabs,Autoclavable)/Spear			



Ultra Series Pleated Filter Cartridge

Ultra Series Pleated Filter Cartridge

The Ultra Series filter are design for high flow rate filtration required on electronic wet processes. This filter can handle flow rate in excess of 100 LPM thus reducing the system foot print change out cost.

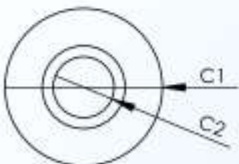
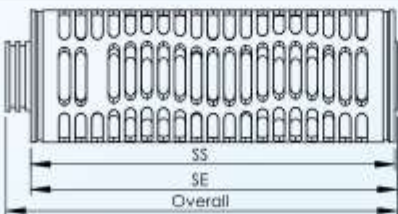
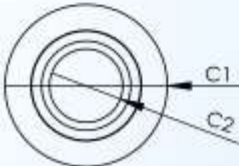
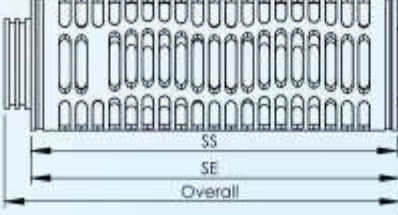
The filter is available in three filter media types: polypropylene, polyethersulfone, and PTFE and removal rating from 0.05um to 70um.

You can easily select the appropriate filter media and the rating for each fluid.

Ultra Clean: Melt-Blown PP micro fiber filter cartridges

Ultra Panel: Polyethersulfone membrane filter cartridges

Ultra Fluoro: PTFE membrane filter cartridges

Diameter	End Cap & Core number	Part of Measurement	10"	C1	C2
		SS	227	83	37
		SE	228		
		Overall	244		
		SS	227	83	37
		SE	228		
		Overall	244		

Ultra clean



Description

Ultra Clean series Melt-Blown polypropylene micro fiber pleated filter cartridges are designed for high flow rate application.

These filters can handle flow rate up to 100 LPM. Ultra Clean Standard series are double or triple layers structure, thereby long service time and high efficiency. Ultra Clean Plus series made of calendered Melt-Blown polypropylene microfiber, provide absolute grade filter efficiency.

Specification

Micron Rating (Absolute Rating 99.9%):

Ultra Clean Standard:

1, 3, 5, 10, 25, 50, 75, 100 μm

Ultra Clean Plus : 0.2(multi pass test), 0.45, 1 μm

Material of Construction:

100% Polypropylene Melt-Blown Micro-Denier fiber

Length: 10 inches, 20 inches

Outer Diameter: 83mm(3.27 inches)

Inner Diameter: 38mm(1.50 inches)

Operation Conditions

Maximum operation pressure drop:

3.4 kg/cm^2 (50 psid) at 80°C(176°F)

6.9 kg/cm^2 (100 psid) at 20°C(68°F)

Maximum operation temperature: 80°C(176°F)

Benefits and Features

Absolute ratings from 0.2 to 100 μm

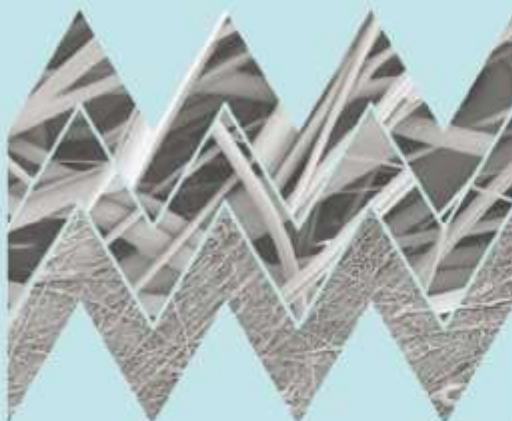
Continuously gradient pore structure increase capacity of dust

100% PP for compatibility for a wide range of process fluid

Formed by thermal bond without use any binder and adhesive

High strength and pressure resistance

Certificated by FDA CFR Title 21



Ultra Clean

Ultra Clean Plus

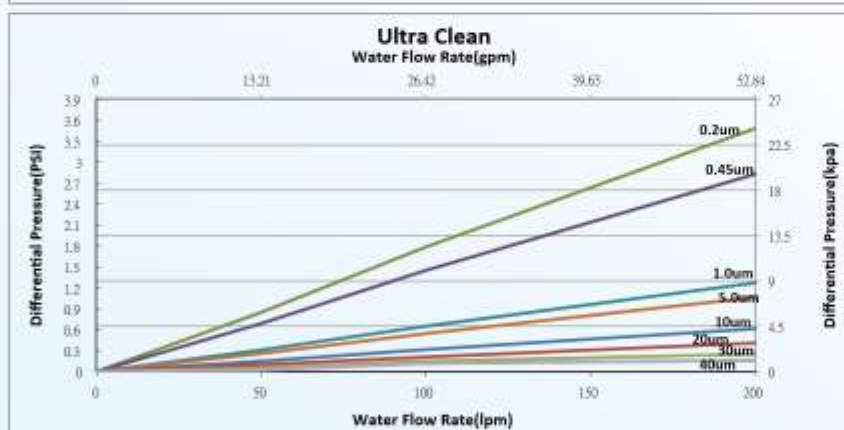
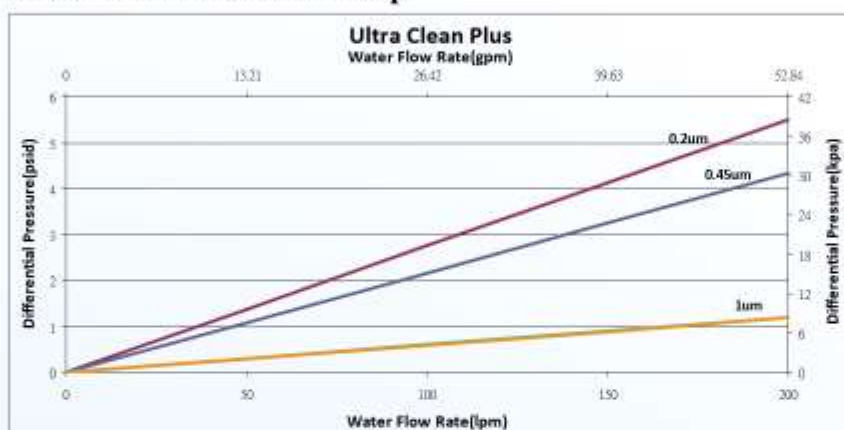


Applications

TFT-LCD: wet etching, stripping, developer, cleaning
 TN/STN: wet etching, stripping, developer, cleaning
 Color Filter: wet etching, stripping, developer, cleaning
 Beverage/Wine clarification.
 Pre-filter of DI & RO water filtration system for industry
 Filtration of medium & low viscosity fluids of chemical

Performance

Flow Rate VS Pressure Drop



Code Principle

UC	S	D10	1	E	2C	A
Product Name	Grade	Rating(um)	Length	O-ring	Code Number	Pre-flush
Ultra Clean	S : Standard P : Plus	B20 : 0.2	1 : 10"	E : EPDM	2C : 222/Cap	A : pre -flush with DI water
		B50 : 0.5	2 : 20"	S : Silicone	6C : 226/Cap	N : Non pre -flush
		C10 : 1		V : Viton		
		C30 : 3		T : PFA		
		C50 : 5		encapsulate viton		
		D10 : 10				
		D20 : 20				
		D30 : 30				
		D40 : 40				
		D50 : 50				
		D75 : 75				
		E100 : 100				

Ultra panel



Description

Highly asymmetric structure polyethersulfone membrane make Ultra Panel series filter cartridges for high flow rates and excellent retention performance. These filter cartridges employ a PES membrane with 100% polypropylene support and porous outside/inside cage, thereby good chemicals compatibility. Filter cartridges are using the welding techniques and manufactured in cleaning room enable the smallest contaminant extraction and higher durability.

Specification

Micron Rating:

0.1, 0.2 μ m, 0.45 μ m, 1.2 μ m

Materials of Construction:

Medium: Highly Asymmetric Polyethersulfone membrane

Core, cage and endcaps : Polypropylene

Support and drainage: Polypropylene

Length: 10inches, 20inches

Outer Diameter: 83mm

Inner Diameter: 38mm

Operation Conditions

Maximum operating forward pressure drop:

0.85 MPa @20°C/120 psid @ 68°F

0.34 MPa @80°C/50 psid@ 176°F

Maximum operating temperature:

80°C/176°F

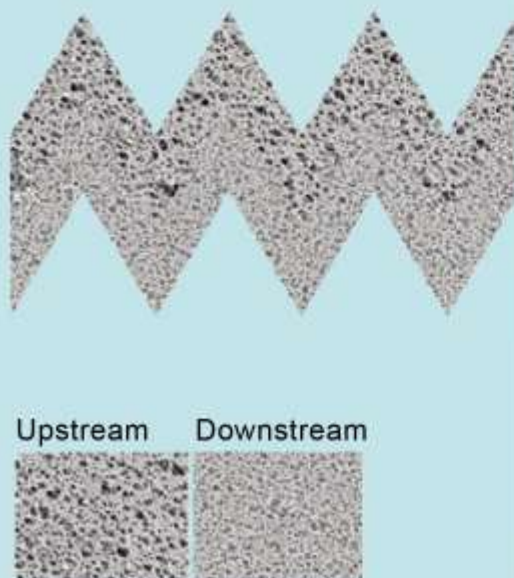
Benefits and Features

Strengthening inner core make for good pressure resistance

High flow rate: these filter can handle flow rates up to 100 lpm

The highly asymmetric structure makes long service life

No extractable, ensure superior downstream cleanliness

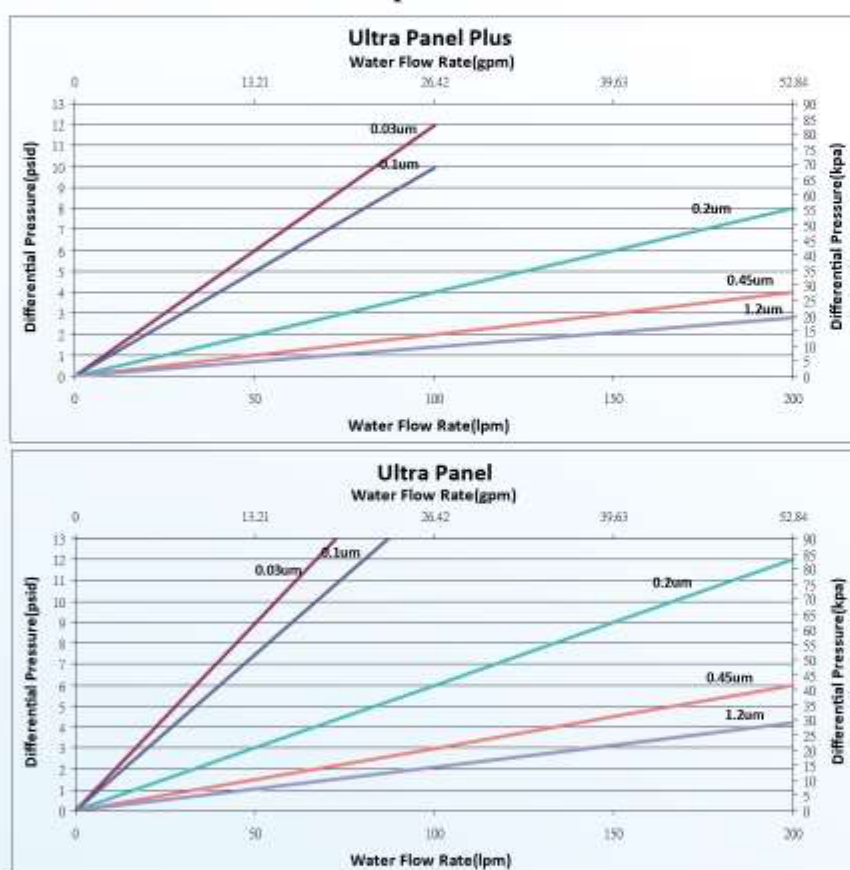


Applications of product

TFT-LCD: Pure water cleaning systems
 TN/STN: Pure water cleaning systems
 Color Filter : Pure water cleaning systems
 Beverage/Wine clarification.
 Filter of plating fluid pr-developers

Performance

Flow Rate VS Pressure Drop



Code Principle

UP	S	C12	1	E	2C	A	A
Product Name	Grade	Rating(um)	Length	O-ring	Code Number	Pre-flush	Integrity Test
Ultra Panel	S : Standard	A30 : 0.03	1 : 10"	E : EPDM	2C : 222/Cap	A : pre -flush	N : Non Test
	P : Plus	B10 : 0.1	2 : 20"	S : Silicone	6C : 226/Cap	with DI water	A : Bubble Test
	E : Extra	B20 : 0.2		V : Viton		N : Non	
		B45 : 0.45		T : PFA		pre -flush	
		C12 : 1.2		encapsulate viton			

Ultra fluoro



Description

High porosity rate PTFE membrane makes Ultra Fluoro series filter cartridges for high flow rates and excellent retention performance. These filter cartridges utilize a PTFE membrane with 100% polypropylene support and porous outside/inside cage, thereby good chemicals compatibility. Filter cartridges are using the welding techniques and manufactured in cleaning room enable the smallest contaminant extraction and higher durability .

Specification

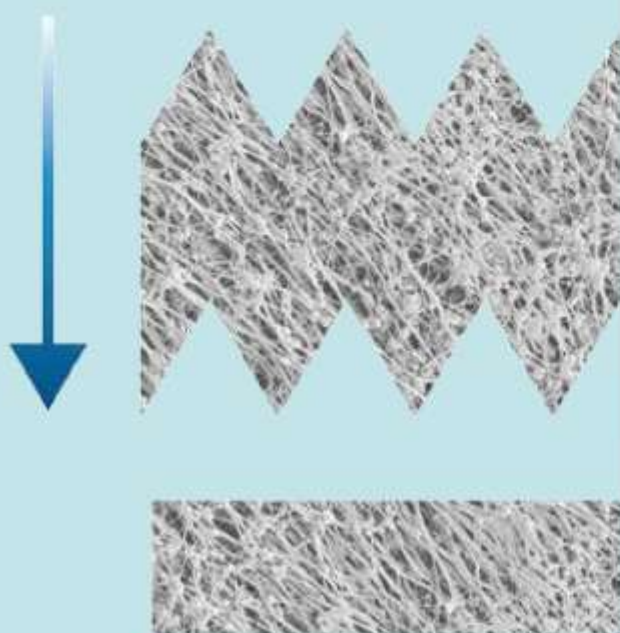
Micron Rating:
0.05, 0.1, 0.2, 0.45, 1, 3, 5, 10µm
Materials of Construction:
Medium :High porosity rate PTFE membrane
Core, cage and endcaps: Polypropylene
Support and drainage: Polypropylene
Length: 10, 20 inches
Outer Diameter: 83mm
Inner Diameter: 38mm

Operation Conditions

Maximum operating forward pressure drop:
0.85 MPa @20°C/120 psid @ 68°F
0.34 MPa @85°C/50 psid@ 185°F
Maximum operating temperature:
85°C/175°F

Benefits and Features

Strengthening inner core make for good pressure resistance
High flow rate : these filter can handle flow rates up to 100 lpm
The high porosity rate structure makes long service life
No extractable, ensure superior downstream cleanliness
PTFE membrane offers excellent chemical resistance in aggressive chemical applications

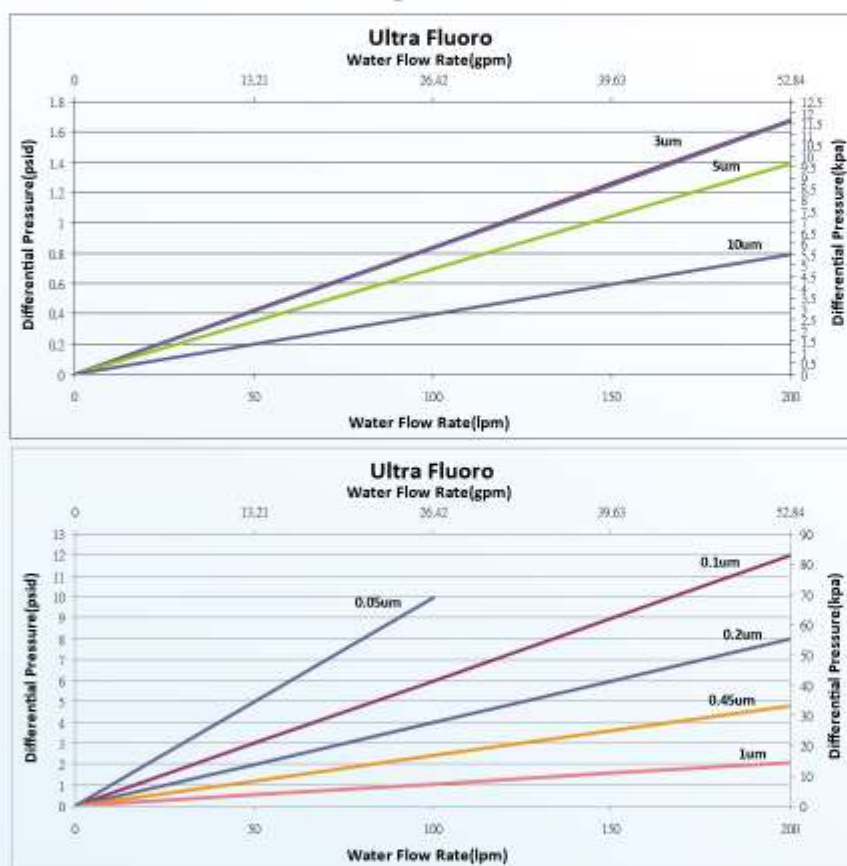


Applications of product

TFT-LCD: wet etching and stripping process
 TN/STN: wet etching and stripping process
 Electronic grade solvents
 Magnetic media solvent

Performance

Flow Rate VS Pressure Drop



Code Principle

UF	S	D10	1	E	2C	A	A
Product Name	Grade	Rating(um)	Length	O-ring	Code Number	Pre-flush	Integrity Test
Ultra Fluoro	S : Standard	A50 : 0.05	1 : 10"	E : EPDM	2C : 222/Cap	A : pre -flush with DI water N : Non pre -flush	N : Non Test
	J : Hydrophobic	B10 : 0.1	2 : 20"	S : Silicone	6C : 226/Cap		A : Bubble Test
	PTFE	B20 : 0.2		V : Viton			
	W : Hydrophilic	B45 : 0.45		T : PFA			
	PTFE	C10 : 1		encapsulate	viton		
		C30 : 3					
		C50 : 5					
		D10 : 10					



Extra Series Pleated Filter Cartridge

Extra Series Pleated Filter Cartridge

The Extra Series filters are designed for extra high flow rate filtration required on electronic wet processes.

This filter can handle flow rate in excess of 200 LPM thus reducing the system foot print change out cost.

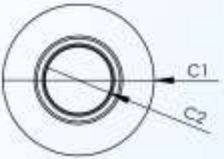
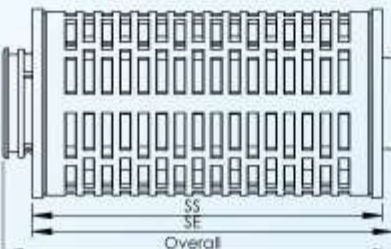
The filter is available in three filter media types: polypropylene, polyethersulfone, and PTFE and removal rating from 0.05um to 70um.

You can easily select the appropriate filter media and the rating for each fluid.

Extra Clean: Melt-Blown PP micro fiber filter cartridges

Extra Panel: Polyethersulfone membrane filter cartridges

Extra Fluoro: PTFE membrane filter cartridges

Diameter	End Cap & Core number	Part of Measurement	10"	20"	C1	C2
		SS	246	477	131	55
		SE	253	484		
		Overall	273	504		

Extra clean



Description

Extra Clean series Melt-Blown polypropylene microfiber pleated filter cartridges are designed for high flow rate application. These filters can handle flow rate up to 200 LPM due to the large surface area of the filter. Extra Clean Standard series are multi-layers structure which is functioned with fine fibers in inner layer and coarse fibers in outer layers, thereby long service time and high efficiency. Ultra Clean Plus series made of calendered Melt-Blown polypropylene microfiber, provide absolute grade filter efficiency.

Specification

Micron Rating (Absolute Rating 99.9%):

Extra Clean Standard :

1, 3, 5, 10, 25, 50, 75, 100 μm

Extra Clean Plus : 0.2(multi pass test), 0.45, 1 μm

Material of Construction:

100% Polypropylene Melt-Blown Micro-Denier fiber

Length: 10 inches, 20 inches

Outer Diameter: 130mm(5.1 inches)

Inner Diameter: 51mm(2 inches)

Operation Conditions

Maximum operation pressure drop:

3.4 kg/cm^2 (50 psid) at 80°C(176°F)

6.9 kg/cm^2 (100 psid) at 20°C(68°F)

Maximum operation temperature: 80°C(176°F)

Benefits and Features

Absolute ratings from 0.2 to 100 μm

High flow rate : these filter can handle flow rates up to 200 lpm

Continuously gradient pore structure increase capacity of dust

100% PP for compatibility for a wide range of process fluid

Formed by thermal bond without use any binder and adhesive

High strength and pressure resistance



Extra Clean

Extra Clean Plus



Applications

TFT-LCD: Wet etching pre-cleaning systems

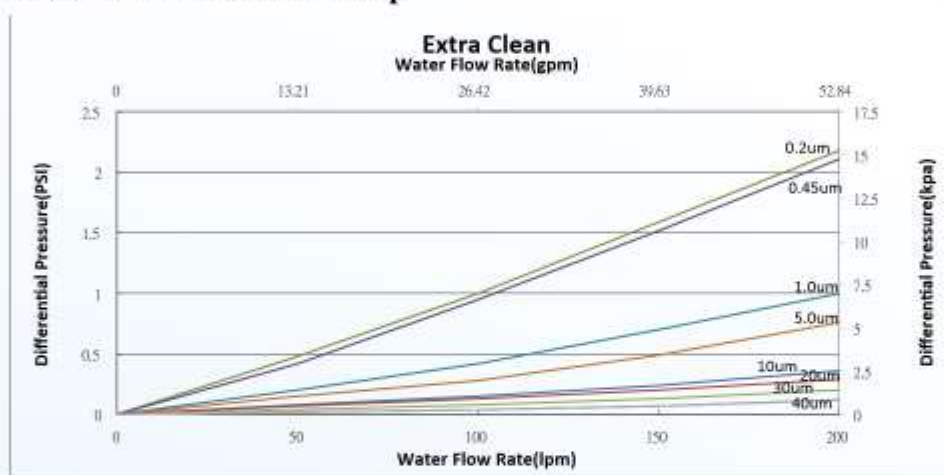
TN/STN: Wet etching pre-cleaning systems

Color Filter : Wet etching pre-cleaning systems

For high flow rate pre- and clarifying filtration of various chemical

Performance

Flow Rate VS Pressure Drop



Code Principle

EC	S	D10	1	E	U	P	A
Product Name	Grade	Rating(um)	Length	O-ring	Code Number	Core Material	Pre-flush
Extra Clean	S : Standard P : Plus	B20 : 0.2 B50 : 0.5 C10 : 1 C30 : 3 C50 : 5 D10 : 10 D20 : 20 D30 : 30 D40 : 40 D50 : 50 D75 : 75 E100 : 100	1 : 10" 2 : 20"	E : EPDM S : Silicone V : Viton T : PFA encapsulate viton	U : U Cup O : O-ring	P : Polypropylene S : Stainless 304	A : pre-flush with DI water N : Non pre-flush

Extra panel



Description

Highly asymmetric structure polyethersulfone membrane make Extra Panel series filter cartridges for high dirt holding capacity and excellent retention performance. The cartridge realizes an extra high flow rate due to large surface area of the filter. These filter cartridges employ a PES membrane with 100% polypropylene support and porous outside/inside cage, thereby good chemicals compatibility. Filter cartridges are using the welding techniques and manufactured in cleaning room enable the smallest contaminant extraction and higher durability.

Specification

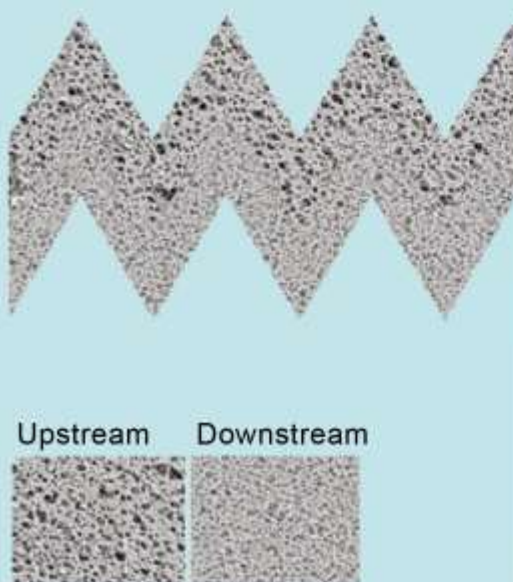
Micron Rating:
0.1, 0.2 μ m, 0.45 μ m, 1.2 μ m
Material of Construction:
Medium :Highly Asymmetric Polyethersulfone membrane
Core, cage and endcaps : Polypropylene
Support and drainage:Polypropylene
Length: 10inches, 20inches
Outer Diameter: 130mm
Inner Diameter: 51mm

Operation Condition

Maximum operating forward pressure drop:
0.85 MPa @20°C/120 psid @ 68°F
0.34 MPa @80°C/50 psid@ 176°F
Maximum operating temperature:
80°C/176°F

Benefits and Features

Strengthening inner core make for good pressure resistance
High flow rate : these filter can handle flow rates up to 200 lpm
The highly asymmetric structure makes long service life
No extractable, ensure superior downstream cleanliness

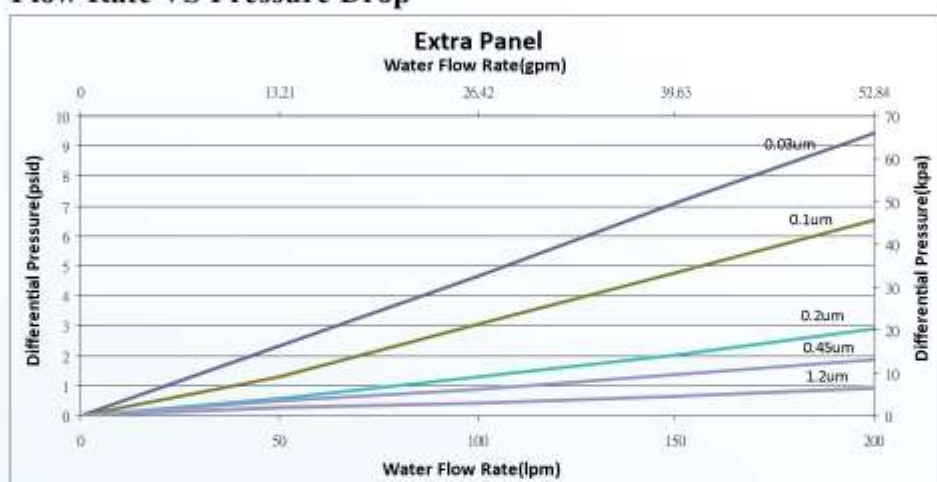


Applications of product

TFT-LCD: Pure water cleaning systems
 TN/STN: Pure water cleaning systems
 Color Filter : Pure water cleaning systems
 Filter of plating fluid pr-developers

Performance

Flow Rate VS Pressure Drop



Code Principle

EP	S	D10	1	E	U	P	A	A
Product Name	Grade	Rating(um)	Length	O-ring	Code Number	Core Material	Pre-flush	Integrity Test
Extra Panel	S : Standard	A30 : 0.03	1 : 10"	E : EPDM	U : U Cup	P : Polypropylene	A : pre -flush	N : Non Test
	P : Plus	B10 : 0.1	2 : 20"	S : Silicone	O : O-ring	S : Stainless 304	with DI water	A : Bubble Test
	E : Extra	B20 : 0.2		V : Viton			N : Non	
		B45 : 0.45		T : PFA			pre -flush	
		C12 : 1.2		encapsulate viton				

Extra fluoro

Description

High porosity rate PTFE membrane makes Extra Fluoro series filter cartridges for high flow rates and excellent retention performance. The cartridge realizes an extra high flow rate due to large surface area of the filter.. These filter cartridges utilize a PTFE membrane with 100% polypropylene support and porous outside/inside cage, thereby good chemicals compatibility. Filter cartridges are using the welding techniques and manufactured in cleaning room enable the smallest contaminant extraction and higher durability.

Specification

Micron Rating:

0.05,0.1, 0.2, 0.45, 1,3,5,10µm

Material of Construction:

Medium: High porosity rate PTFE membrane

Core, cage and endcaps : Polypropylene

Support and drainage:Polypropylene

Length:10, 20 inches

Outer Diameter: 130mm

Inner Diameter: 51mm

Operation Conditions

Maximum operating forward pressure drop:

0.85 MPa @20°C/120 psid @ 68°F

0.34 MPa @85°C/50 psid@ 185°F

Maximum operating temperature:

85°C/175°F

Benefits and Features

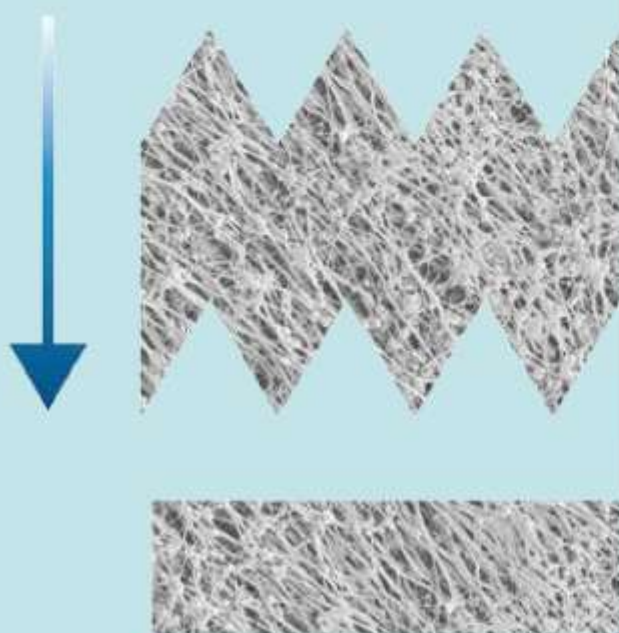
Strengthening inner core make for good pressure resistance

High flow rate: these filter can handle flow rates up to200 lpm

The high porosity rate structure makes long service life

No extractable, ensure superior downstream cleanliness

PTFE membrane offers excellent chemical resistance in aggressive chemical applications

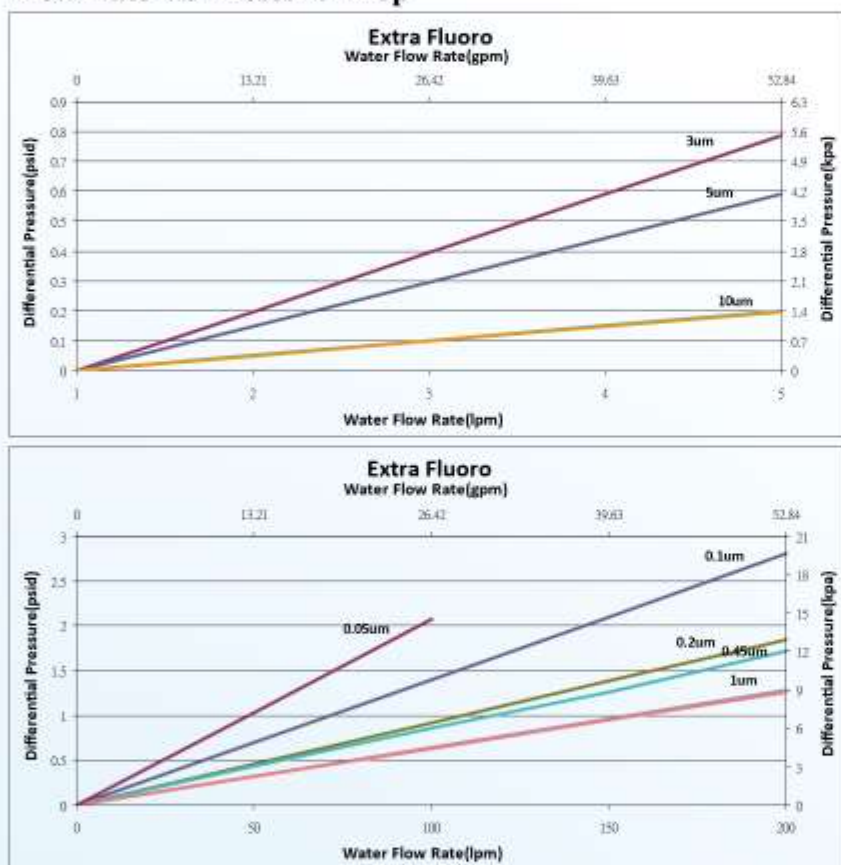


Applications of product

TFT-LCD: wet etching and stripping process
 TN/STN: wet etching and stripping process
 Electronic grade solvents
 Magnetic media solvent

Performance

Flow Rate VS Pressure Drop



Code Principle

EF	S	D10	1	E	U	P	A	A
Product Name	Grade	Rating(um)	Length	O-ring	Code Number	Core Material	Pre-flush	Integrity Test
Extra Fluoro	S : Standard	A50 : 0.05	1 : 10"	E : EPDM	U : U Cup	P : Polypropylene	A : pre -flush	N : Non Test
	J : Hydrophobic	B10 : 0.1	2 : 20"	S : Silicone	O : O-ring	S : Stainless 304	with DI water	A : Bubble Test
	PTFE	B20 : 0.2		V : Viton			N : Non	
	W : Hydrophilic	B45 : 0.45		T : PFA			pre -flush	
	PTFE	C10 : 1		encapsulate				
		C30 : 3		viton				
		C50 : 5						
		D10 : 10						



High Flow Series Pleated Filter Cartridge

High Flow Series Pleated Filter Cartridge

The High Flow Series filter are designed for extra high flow rate filtration .

Max Flow series and Max Pleated are large diameter, coreless, single open-ended,pleated cartridges with an inside to out side flow pattern.

Their large 6"/152mm diameter, reduces the number of filters and size of housing required.

The Cross-Pleated series filter Cartridge is an advance design that use SMS filter media and cross pleat, the surface area is 40 times than traditional pleated filter cartridge in a single cartridge.

Max Flow:

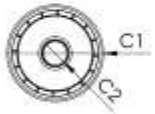
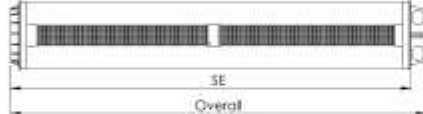
This series filter cartridges are available PET, Nylon and Polypropylene Melt-Blown media for other applications

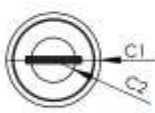

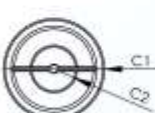

Max Pleated:

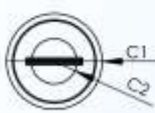

The cartridges are available to fit most size 1 and size 2 bag housings with no hardware changes

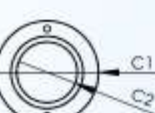

Cross Pleated:

The cartridge's cross pleated design making large surface area available that can provides long filter service time

Cross-Pleated High Flow							
Diameter	End Cap & Core number	Part of Measurement	30"	39"	C1	C2	
		SE	670	950	154	44	
		Overall	730	1000			

Max-Flow High Flow								
Diameter	End Cap & Core number	Part of Measurement	20"	30"	40"	60"	C1	C2
		SS	476	711	1000	1494	159	75
		SE	486	720	1009	1503		
		Overall	506	740	1030	1525		
		SE	486	720	1009	1503		
		Overall	507	740	1030	1525		

Max-Pleated High Flow _Fixed flange						
Diameter	End Cap & Core number	Part of Measurement	Size 1	Size 2	C1	C2
		SE	323	694	174	75
		Overall	332	703		

Max-Pleated High Flow _Activities flange						
Diameter	End Cap & Core number	Part of Measurement	Size 1	Size 2	C1	C2
		SE	254	641	155	90
		Overall	263	650		

Max flow



Description

The Max-Flow High Flow filter is suited for applications such as cooling water, Pre-RO, and resin trap filtration.

It is a large diameter, coreless, single open-ended, pleated cartridge with an inside to outside flow. Puts an extraordinary amount of surface area into a single cartridge.

Specification

Micron Rating: 1, 5, 10, 25, 50, 75 μm

Material of Construction:

Filter Medium: Pleated Polypropylene depth structure

Support and drainage : Polypropylene

End caps : Polypropylene

Outer Diameter: 152.4mm (6 inches)

Inner Diameter: 80mm (3.2 inches)

Length: 508mm (20 inches), 1016mm (40 inches), 1524mm (60 inches)

O-Ring : EPDM(Standard), Viton, Silicone, PEA encapsulated Viton

Operation Conditions

Maximum operating forward pressure drop:
3.5bar (50 psi) at 25°C (77°F)

Maximum operating temperature: 80°C (176°F)

Benefits and Features

High dirt loading capacity for long service time and lower cost filtration

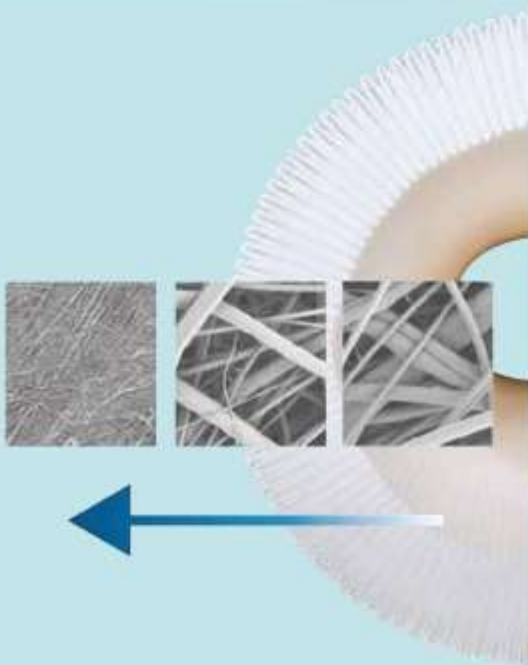
Up to forty conventional depth filters minimize initial cost

Inside to outside flow configuration all contaminants held within the single ended filter

Shorter in down time for element replacement

Smaller equipment footprint

Coreless construction minimizes disposal cost



Applications of product

RO Pre-Filtration
 UF Membrane Pre-Filtration
 Cooling water filtration
 Pre filters or Final filters for waste water

Performance

Pressure Drop & Retention Rate

Micro Rating (μ m)	Max Flow							
	Efficiency (μ m)		Pressure Drop (mbar/m ³ /h) / (psid/100 gpm)					
	90%	99.98%	20" / 508 mm		40" / 1016 mm		60" / 1524 mm	
C10	0.5	1.2	3.74	1.232	1.85	0.61	1.24	0.409
C50	2	5	1.31	0.43	0.65	0.213	0.43	0.143
D10	5	10	0.99	0.327	0.49	0.162	0.33	0.109
D25	16	25	0.61	0.202	0.3	0.1	0.2	0.067
D50	38	50	0.38	0.125	0.19	0.062	0.13	0.042
D75	65	75	0.09	0.028	0.04	0.014	0.03	0.009

* By ASTM F-795 Test

Code Principle

MFH	-	C10	-	2	-	E	-	X	-	I
Product Name		Rating(μ m)		Length		O-ring		Type		Special
Max Flow		B20 : 0.2		2 : 20'		E : EPDM		S : PP Ribbon		I : Strengthen cap
		B45 : 0.45		4 : 40'		S : Silicone		T : PET Ribbon		
		C10 : 1		6 : 60'		V : Viton		X : Cage		
		C50 : 5				T : PFA		SN : PP Ribbon+Nets		
		D10 : 10				encapsulate		TN : PET Ribbon+Nets		
		D20 : 20				viton		N : Nets		
		D30 : 30						SP : PP Ribbon+Cage		
		D40 : 40						SI : PP Ribbon+Inner Core+Cage		

Max pleated



Description

The High Capacity Pleated Filter is designed to fit inside existing baskets without hardware changes. It provides higher filter surface area and dirt holding capacity. The inside-out flow holds contaminant within the filter. High Capacity Pleated Filter holds several times than the typical 500 series bag.

Specification

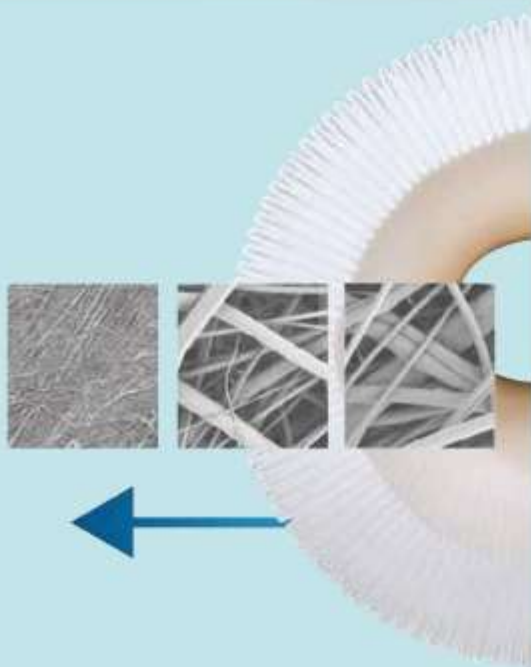
Micron Rating: Absolute rating 1, 5, 10, 25, 50, 75 μm
 Material of Construction:
 Filter Medium: Pleated Polypropylene depth structure
 Support and drainage: Polypropylene
 Inner core: Polypropylene
 End caps: Polypropylene
 Outer Diameter: 152.4mm (6 inches)
 Outer Flange Diameter: 184mm (7.24 inches), equal to Size 1/Size 2 Bags
 Length: Standard Size 1, Standard Size 2
 O-Ring : EPDM(Standard), Viton, Silicone, PFA encapsulated Viton

Operation Conditions

Maximum operating forward pressure drop:
 5.1bar (75 psi) at 25°C (77°F)
 Maximum operating temperature: 80°C (176°F)

Benefits and Features

High surface area, high flow capacity
 Inside to outside flow configuration all contaminants held within the single ended filter
 Shorter in down time easy to change out
 Available to fit most Size 1 and Size 2 bag housing with no hardware changes
 All polypropylene construction provides wide chemical compatibility
 Cartridges are free of surfactants, resins, binder and adhesive



Applications of product

RO Pre-Filtration
Cooling water filtration
Pre filters or Final filters for waste water
Food and Beverage filtration
Oil Filtration

Performance

Pressure Drop & Retention Rate

Max Pleated						
Micro Rating (μm)	Efficiency (μm)		Pressure Drop			
	90%	99.98%	(mbar/m ³ /h) / (psid/gpm)			
			Size #1		Size #2	
C10	0.5	1.2	13.683	0.032	6.267	0.022
C50	2	5	1.817	0.006	2.8	0.008
D10	4.5	10	0.9	0.003	1.033	0.004
D25	16	25	0.6	0.002	0.467	0.002
D50	38	50	<0.3	<0.001	0.3	0.001
D75	65	75	<0.3	<0.001	<0.3	<0.001

* By ASTM F-795 Test

Code Principle

MPH	-	C10	-	2	-	E	-	P	-	SN
Product Name		Rating(μm)		Length		O-ring		Code Number		Type
Max Pleated		B20 : 0.2		1 : Size 1		E : EPDM		P : Plastic flange		S : PP Ribbon
		B45 : 0.45		2 : Size 2		S : Silicone		N : None		T : PET Ribbon
		C10 : 1				V : Viton				X : Cage
		C50 : 5				T : PFA				SN : PP Ribbon+Nets
		D10 : 10				encapsulate				TN : PET Ribbon+Nets
		D20 : 20				viton				N : Nets
		D30 : 30								SP : PP Ribbon+Cage
		D40 : 40								SI : PP Ribbon+Inner Core+Cage

Cross pleated



Description

The Cross-Pleated High Flow filter Cartridge is suit for applications such as Pre-RO, waste water filtration.

It is designed to fit in a range of vessels that holds from one to over 37 filters for a wide range of flow rates in competitively priced hardware.

Specification

Micron Rating: 1, 5, 10, 20, 30, 40 μm

Material of Construction

Filter Medium: 100% PP Melt-blown micro fiber

Inner core: Polypropylene

Outer sleeve and End caps: Polypropylene

Length: 50.8cm (20 inches), 76.2cm(30 inches), 100cm (39 inches)

Outer Diameter: 16.5cm (6.5 inches)

Inner Diameter: 4cm (1.6 inches)

O-Ring: AS-568-226, EPDM(Standard), Viton, Silicone, PFA encapsulated Viton

Operation Conditions

Maximum operating forward pressure drop:

3.5bar (50.75psi) at 25°C (77°F)

Maximum operating temperature: 80°C (176°F)

Recommended Flow : 150 L/min (33GPM)

Filtration Area : 12~20 m^2 (130ft²~216ft²)

Benefits and Features

High dirt loading capacity for long service time and lower cost filtration

Low initial capital cost

Reduced maintenance time for filter change out

Smaller equipment footprint

Manufactured in clean room, highly clean cartridge

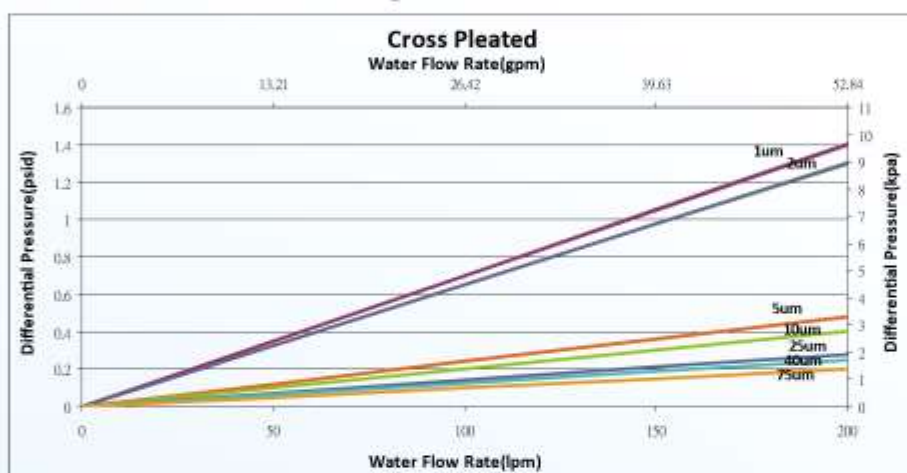


Applications of product

RO Pre-Filtration
 UF Membrane Pre-Filtration.
 Beverage/Wine clarification.
 Filtration of Amines,
 Filtration of Edible oil.
 Filtration of glass cut cleaning
 Pre filters or Final filters for waste water.

Performance

Flow Rate VS Pressure Drop



Retention Rate

Micro Rating (μ m)	Cross Pleated						
	Filtration Efficiency (%)						
	1	2	5	10	25	40	75
C10	99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9
C20	95	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9
C50	81.45	91.3	99.9	>99.9	>99.9	>99.9	>99.9
D10	-----	58.55	78.25	99.9	>99.9	>99.9	>99.9
D25	-----	-----	55.65	76.35	99.9	>99.9	>99.9
D40	-----	-----	-----	74.65	85.35	99.9	>99.98
D75	-----	-----	-----	-----	70.5	88.4	99.9

Code Principle

CPH	-	D10	-	39	-	E
Product Name		Rating(um)		Length		O-ring
Cross Pleated	C10 : 1			20 : 20"		E : EPDM
	C50 : 5			30 : 30"		S : Silicone
	D10 : 10			39 : 39"		V : Viton
	D20 : 20					T : PFA
	D30 : 30					encapsulate
	D40 : 40					viton



Disposable Filter

Disposable Filter

CAG Series filter

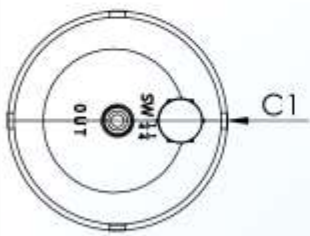
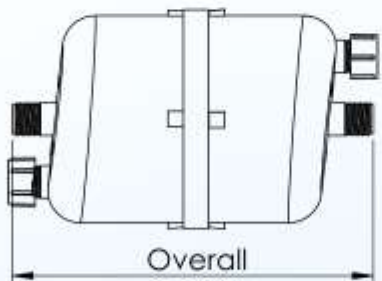
These series filters are idea for small volume batch processing .

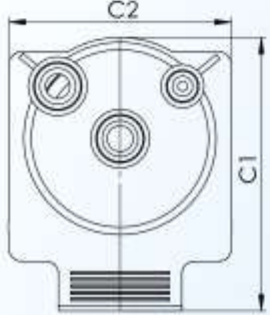
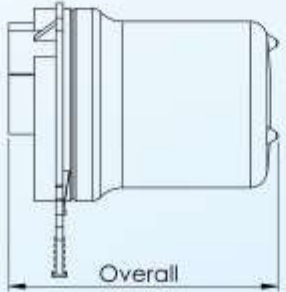
CAG Series filters are available in three filter media types : polypropylene, polyethersulfone and PTFE membrane.

O-ringless designed make CAG filters easy to change .

OEC capsule filter

This capsule filter assembly is designed for clean, simple, safe and fast filter changes-outs in point-of-use photo-chemical dispense applications.

Capsule					
Diameter	End Cap & Core number	Part of Measurement	Length(mm)	C1	
		Overall	114	70	

Optimize Easy Change Capsule Filter					
Diameter	End Cap & Core number	Part of Measurement	Length(mm)	C1	C2
		Overall	107	110	90

Capsule clean

Description

The Capsule Clean filters are made entirely of polypropylene and designed to filter liquid process chemicals at flow rate of less than 10 liters per minute. The disposable filter which is fully encapsulated in a compact and easy-to-handle housing shell is cost effective for low-volume filtration. All the products are manufactured, tested, and packaged in a clean room to ensure the cleanliness.

Specification

Micron Rating (Absolute Rating 99.9%):

0.2, 0.45, 0.65, 1.0, 1.5, 5.0, 10, 20, 30, 40um

Material of Construction:

Medium: Melt-Blown PP micro filter

Support, shell, drainage, core and caps:

100% polypropylene

Length: 114mm (4.5inches), 173mm (6.8inches)

Outer Diameter: 72mm (2.83 inches)

Toxicity:

Complies with USP XXI Class VI for plastics

Non-toxic per WI-38 Human Cell Cytotoxicity Test

All materials meet FDA regulations for food contact

Operating Conditions

Maximum temperature: 80°C (176°F)

Maximum differential:

3.4kg/cm² (50 psid)@20°C(68°F)

Benefits and Features

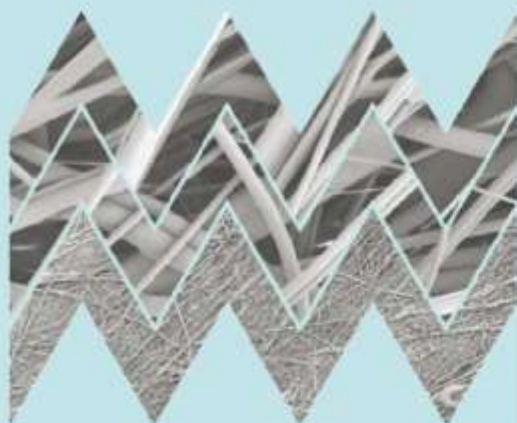
Sealing method: thermal welding, eliminating adhesive extractable

Manufactured in cleanroom

Vent at highest location

Drain at lowest location

O-ringless design



Micro star

Micro clean

Micro Clean Plus



Capsule panel

Description

The Capsule Panel filter capsules are designed for simple, quick, and efficient filtration of fluids and gases used in laboratory, pilot, and small-scale applications. The PES membrane in an all-polypropylene construction provides excellent chemical compatibility and superior flow per unit area as compared to other membrane cartridges. No adhesives, binders, or surfactants are used in the manufacturing process and all capsules are rinsed with high-purity water to reduce extractables and downtime. All filter capsules are 100% integrity tested to ensure filter performance each and every time out of the package.

Specification

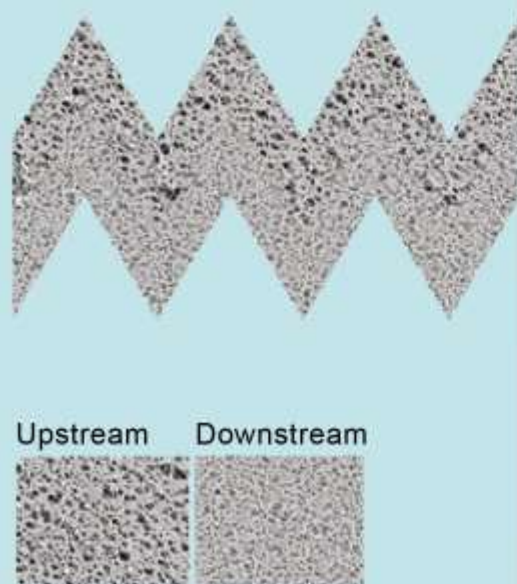
Micron Rating :0.03, 0.1, 0.2, 0.45, 1.2um
 Material of Construction:
 Medium: PES Membrane
 Support, shell, drainage, core and caps: 100% polypropylene
 Length: 114mm (4.5inches), 173mm (6.8inches)
 Outer Diameter: 72mm (2.83inches)
 Toxicity:
 Complies with USP XXI Class VI for plastics
 Non-toxic per WI-38 Human Cell Cytotoxicity Test
 All materials meet FDA regulations for food contact

Operation Conditions

Maximum temperature: 93°C(200°F)
 Maximum differential:5kg/cm²(70 psid)@20°C(68°F)

Benefits and Features

Sealing method: thermal welding, eliminating adhesive extractable
 Manufactured in cleanroom
 Vent at highest location
 Drain at lowest location
 O-ringless design

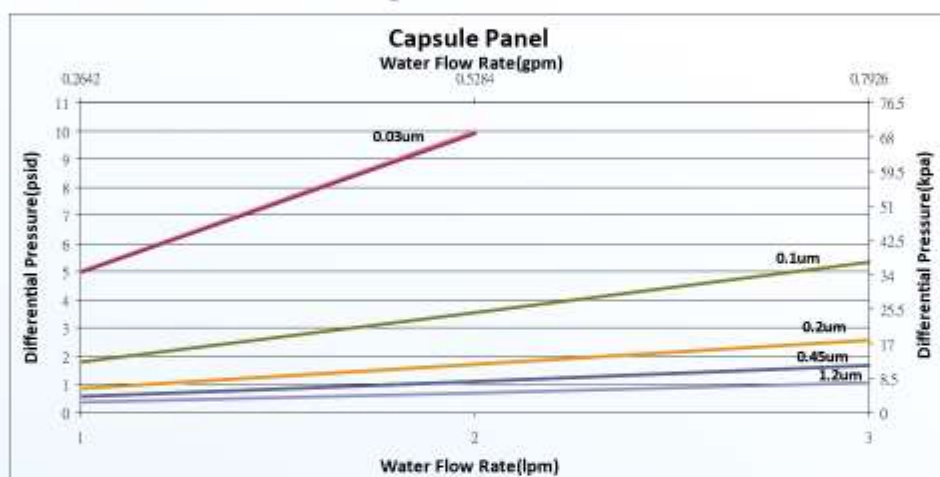


Applications of Product

Ink jets
Filtration of acids,bases and solvents
Beverages
Sterile tank venting
Small volume point-of-use filtration
Fine chemicals

Performance

Flow Rate VS Pressure Drop



Code Principle

CAG	PS	B20	S	25	N	N
Product Name	Series	Rating(um)	In/Out,Vent/Drain	Length	Pre-flush	Integrity Test
Capsule Code	PS : Micro Panel Standard	A30 : 0.03	S : 6mm,4mm SW	25 :114mm	A : pre -flush with	N : Non Test
	PP : Micro Panel Plus	B10 : 0.1	V : 1/4",1/8"NPT	50 :173mm	DI water	A : Bubble Test
	PE : Micro Panel Extra	B45 : 0.45	X : 1/4",1/4"SW		N : Non pre -flush	
	DS : Micro Dura Standard	C12 : 1.2				
	DP : Micro Dura Plus					
	DE : Micro Dura Extra					

Capsule fluoro



Description

The CAG Fluoro filters are designed to filter liquid process chemicals at flow rate of less than 10 liters per minute. The medium of PTFE membrane is constructed by polypropylene supports and are compatible with a wide range of solvents, acids, and bases at ambient temperatures. The disposable filter which is fully encapsulated in a compact and easy-to-handle housing shell is cost effective for low-volume filtration. All the products are manufactured, tested, and packaged in a clean room to ensure the cleanliness.

Specification

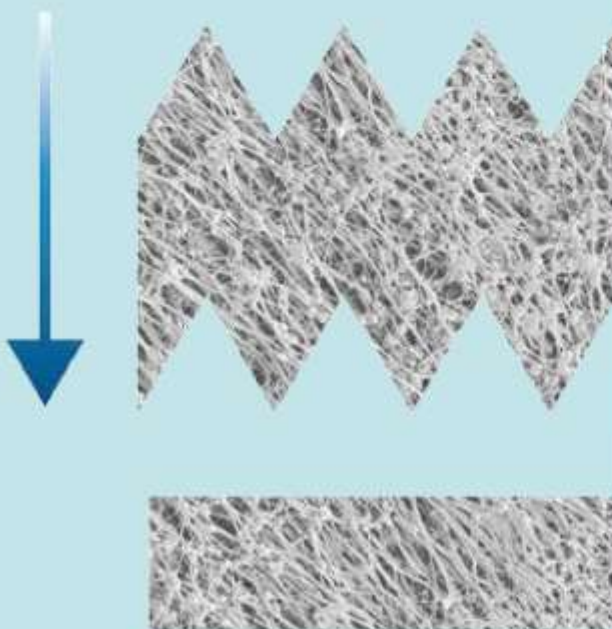
Micron Rating :
0.05, 0.1, 0.2, 0.45, 1, 3, 5.0, 10um
Material of Construction:
Medium: PTFE Membrane
Support, shell, drainage, core and caps:
100% polypropylene
Length: 114mm(4.5inches), 173mm(6.8inches)
Outer Diameter: 72mm(2.83 inches)
Toxicity:
Complies with USP XXI Class VI for plastics
Non-toxic per WI-38 Human Cell Cytotoxicity Test
All materials meet FDA regulations for food contact

Operating Conditions

Maximum temperature: 93°C(200°F)
Maximum differential: 5kg/cm²(70 psid)@20°C
(68°F)

Benefits and Features

Sealing method: thermal welding, eliminating adhesive extractable
Manufactured in cleanroom
Vent at highest location
Drain at lowest location.
O-ringless design

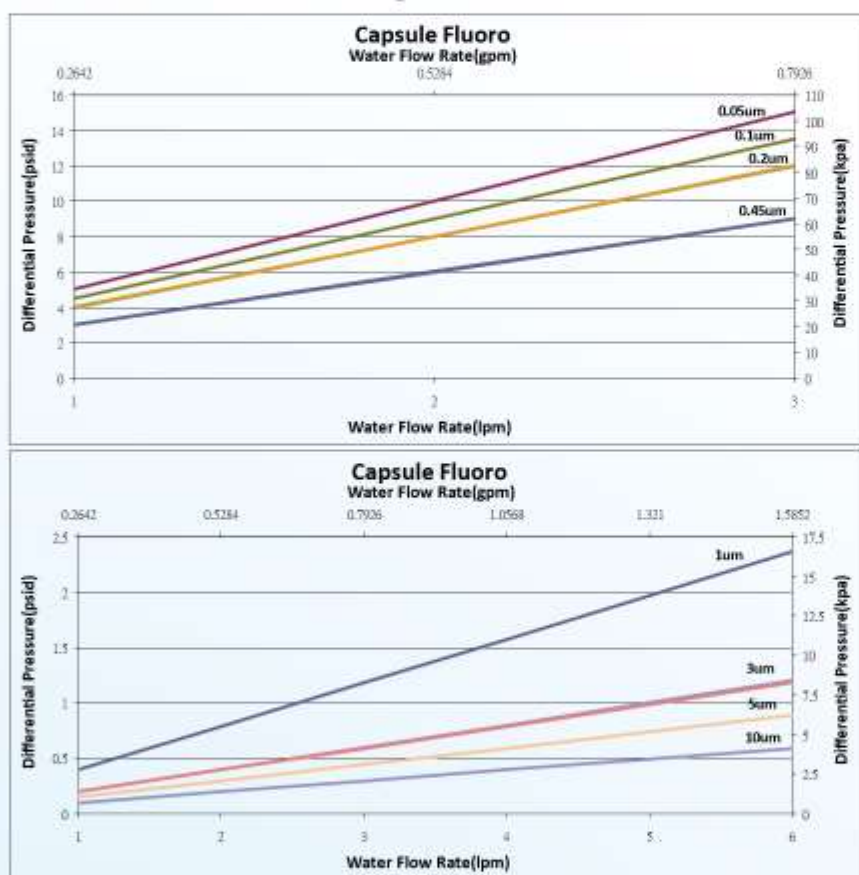


Application of Product

TFT-LCD ArrayProcess :Photo resists, coatings
Filtration of acids,bases and solvents
Wet etching process: chemical, solvents, coatings
Sterile tank venting
Small volume point-of-use filtration

Performance

Flow Rate VS Pressure Drop



Code Principle

CAG	FS	B20	S	25	N	N
Product Name	Series	Rating(um)	In/Out,Vent/Drain	Length	Pre-flush	Integrity Test
Capsule Code	FS : Micro Fluoro Standard	A50 : 0.05	S : 6mm,4mm SW	25 :114mm	A : pre -flush with	N : Non Test
	FJ : Micro Fluoro	B10 : 0.1	V : 1/4",1/8"NPT	50 :173mm	DI water	A : Bubble Test
	Hydrophobic	B20 : 0.2	X : 1/4",1/4"SW		N : Non pre -flush	
	FW : Micro Fluoro	B45 : 0.45				
	Hydrophilic	C10 : 1				
		C30 : 3				
		C50 : 5				
		D10 : 10				

OEC Capsule filter



Description

The OEC filter is designed for extremely small resist pump installations. It is specifically designed for small volume dispense systems which require the smallest footprint area. The OEC filter unit consists of a quick disconnect head manifold and a polypropylene capsule. This configuration allows for safe, quick and easy filter change-outs. Three filter media types, PTFE, PES, PP are available to optimize your filtration selection.

Specification

Micron Rating (Absolute Rating 99.9%):
0.2, 0.45, 0.65, 1.0, 1.5, 5.0, 10, 20, 30, 40um
Material of Construction:
Medium: Melt-Blown PP micro filter
Support, shell, drainage, core and caps:
100% polypropylene

Operation Conditions

Maximum temperature: 80°C(176°F)
Maximum differential:
3.4kg/cm² (50 psid)@20°C (68°F)

Benefits and Features

- Capsule style filter assembly
- Minimized hold-up volume
- One step quick filter replacement
- Reduces chemical waste during filter startup and change-out

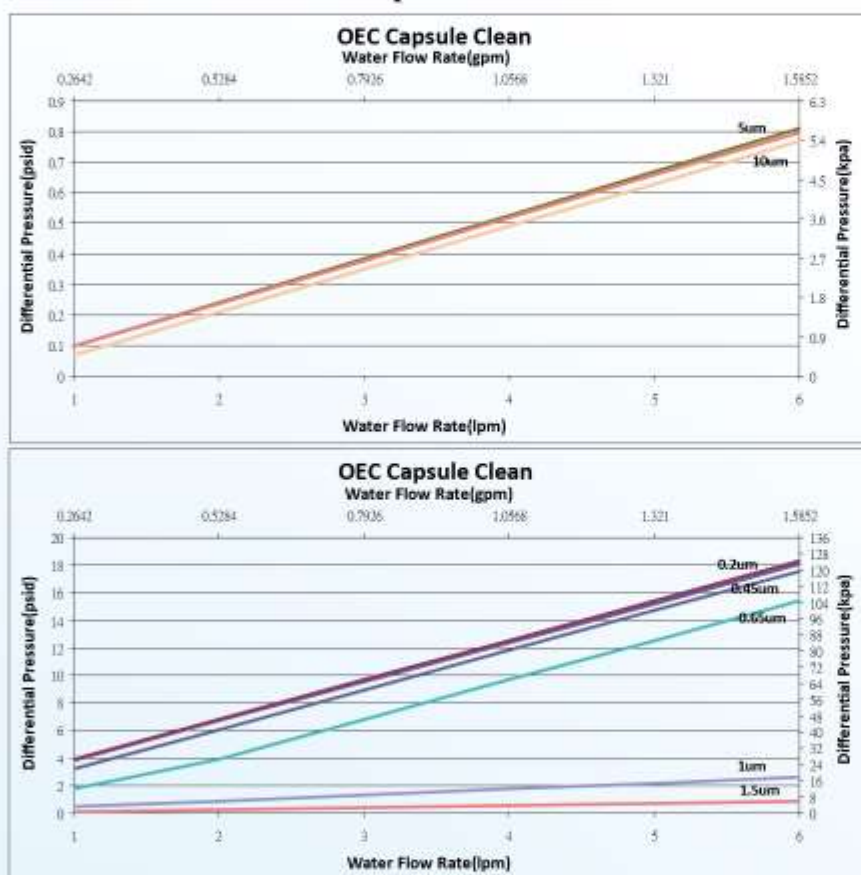


Applications of Product

TFT-LCD Color Filter :Photo resists, coatings
Filtration of solvents
Small volume point-of-use filtration

Performance

Flow Rate VS Pressure Drop

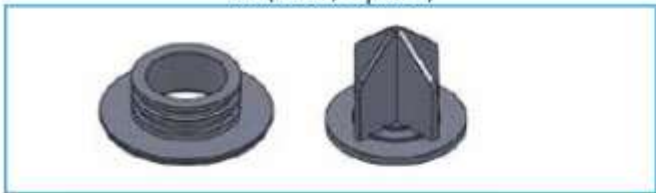


Code Principle

OEC	CS	B20	1	E	N	N
Product Name	Series	Rating(um)	Length	O-ring	Pre-flush	Integrity Test
Optimize	CS : Micro Clean Standard	A30 : 0.03	1:Size1 107mm	E:EPDM	A : pre -flush	N : Non Test
Easy Change	CP : Micro Clean Plus	A50 : 0.05		S:Silicone	with DI water	A : Bubble Test
Capsule Filter	SS : Micro Star Standard	B10 : 0.1		V:Viton	N : Non pre -flush	
	FS : Micro Fluoro Standard	B20 : 0.2		T:PFA		
	FJ : Micro Fluoro Hydrophobic	B45 : 0.45		encapsulate viton		
	FW : Micro Fluoro Hydrophilic	C10 : 1				
	PS : Micro Panel Standard	C30 : 3				
	PP : Micro Panel Plus	C50 : 5				
	PE : Micro Panel Extra	D10 : 10				
	DS : Micro Dura Standard	D20 : 20				
	DP : Micro Dura Plus	D30 : 30				
	DE : Micro Dura Extra					

End Cap Configuration

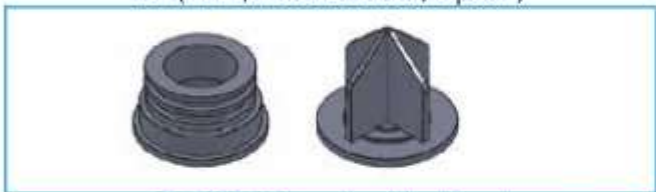
2S (222 / Spear)



2C (222 / Cap)



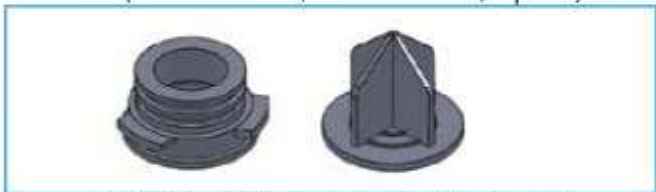
2B (222 , Autoclavable / Spear)



2F (222 , Autoclavable / Cap)



2H (222 with tabs, Autoclavable / Spear)



2L (222 with tabs, Autoclavable / Cap)



DO (Double Open)



Max Pleated Code Number : N



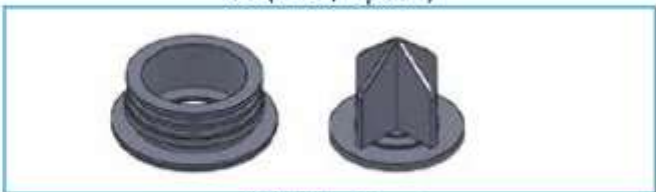
6S (226 / Spear)



6C (226 / Cap)



6B (226 , Autoclavable / Spear)



6F (226 / Cap)



6H (226 with tabs, Autoclavable / Spear)



6L (226 with tabs, Autoclavable / Cap)



Max Flow



Max Pleated Code Number : P



Conversion Table for Commonly Used

Units in Water Treatment Engineering

	Unit	
Linear	1 (m) = 100 (cm) = 1000 (mm) = 1,000,000 (µm)	
	1 (yd) = 3 (ft) = 36 (in)	
	1 (m) = 1.09 (yd)	1 (yd) = 0.9144 (m)
	1 (m) = 3.28 (ft)	1 (ft) = 0.3048 (m)
	1 (ft) = 0.3937 (in)	1 (in) = 2.54 (cm)
Square	1 (m ²) = 1.19 (yd ²) = 10.79 (ft ²)	
	1 = 3.306 (m ²) = 35.5833 (ft ²)	
Cubic	1 (L) = 1000 (cm ³) = 1000 c.c = 1000ml	
	1 (L) = 0.0353 (ft ³) = 61.0233 (in ³)	
	1 (L) = 0.21998 (gal)	
	1 (U.K. gal) = 4.54596 (L)	1 (U.S gal) = 3.785 (L)
	1 (ft ³) = 1728 (in ³)	
Weight	1 (m ³) = 1000 (L) = 1 Ton(water)	
	1 (kg) = 1000 (g) = 1,000,000 (mg)	
Flow rate	1 (kg) = 2.204 (lb)	1 (lb) = 0.454 (kg)
	1GPD = 24GPh = 1440GPM = 6537.6LPM	
	1GPM = 4.54LPM	
	1LPM = 0.22GPM	
Pressure	1 kg/cm ² = 14.2psi (1b/mC) = 0.098 Mpa	
	1 psi = 0.070307kg/cm ²	1kg/cm ² = 14.22psi
	1 psi = 6894.76 pa	
	1 mmHg = 9.80665 pa	1pa = 0.10197mmHg
	1 bar = 1.0197 kg/cm ²	
Temperature	°C = 5/9 (°F-32)	
	°F = 9/5 (°C+32)	
Viscosity	1 poise (g/cm.s) = 100 centipoise (cps)	

Materials Selection Guide

Key for Selection Guide

Filter Media:		Container Material:
F-1 - Rayon	F-13 - Phenolic Resin Pleated	C-1 - Steel
F-2 - Cotton	Paper (718 size)	C-2 - Stainless Steel
F-3 - Acetate	F-15 - Polyester	C-4 - Rubber Lined
F-5 - Orlon (Acrylic)	F-17 - Phenolic Resin Pleated	C-5 - Special (Kynar [®] , PVC, Fluoroshield [®] , etc.)
F-6 - Nylon	Paper (2 1/2" Diameter)	C-6 - Carpenter 20
F-7 - Glass Fiber	F-18 - PCC	C-7 - Plastic
F-9 - Polypropylene	F-19 - RBC	C-8 - Fiberglass Reinforced Plastic
F-10 - Cranite [™] (Fullers Earth)	F-20 - Polymate	
F-11 - Rayon Cellulose	F-21 - Advantage	
F-12 - Cotton Waste & Excelsior	See page 16 for Properties of Filter Media Materials Chart	

% Concentration	Temp. F [°]	Filter Media	Container	Core	Gasket
Acetaldehyde	125	F-6,9,15	C-2	H-2	G-5
Acetaldehyde	10%	F-15	C-2	H-2	G-5
Acetamide	Any	F-6	C-1,2	H-1,2	G-2,3
Acetate Solvents	Note 2,3	F-1,2,7	C-1	H-1	G-1,5
Acetate Solvents	70	F-9	C-1	H-1	G-1,5
Acetic Acid	0-20%	F-1,2,9,15,17,19,20	C-2	H-2,9,12	G-3,5,6,10,11
Acetic Acid	50%	F-9	C-2	H-2,9,12	G-5,6,10
Acetic Acid	75%	F-7,9	C-2	H-2,3	G-1,5,6,10
Acetic Acid	Any	F-5,7,9	C-2,6	H-2	G-1,5,6,10
Acetic Acid	100%	F-5,7,9,15	C-2,6	H-2,9,12	G-1,5,6,10
Acetic Anhydride	Any	F-7	C-2,6	H-2	G-5
Acetic Anhydride	Any	F-7,9	C-2,6	H-2,12	G-5
Acetone	50	F-1,2,9,15,17,18,19,20,21	C-1	H-1,9,12	G-1,4,5,10
Acetonitrile		F-18	C-2	H-2	G-2,3,9,10,13
Acetophenone	100%	F-9	C-2	H-2,9	G-5,10
Acetyl Chloride		F-8	C-2	H-2	G-5,9
Acetylsalicylic Acid	125	F-1,2	C-2	H-2	G-2,3,7
Acetylene	150	F-1,2,6,9,15,17	C-1	H-1,12	G-2,6,9,10
Acrilflavine	2%	F-9		H-9	
Acrylic Emulsions		F-9		H-9	
Acrylonitrile	100%	F-1,2,6,15,19	C-2	H-2,13	G-5
Adhesives			C-1,2	H-1	G-2,3,5
Adipic Acid	100%	F-9,19	C-5	H-9	G-5,9
Air	Note 2,8	F-1,2,7,9,15,17,18,21	C-1	H-1,2,9,12	G-1,2,3,4,13
Alcohol Solvents	Note 2,3	F-1,2,7,9,13,18	C-1	H-1	G-1,5,9,13
Ally Alcohol		F-1,2,9	C-1	H-1	G-2,3,5,6
Ally Chloride		F-9	C-2	H-9	G-5
Almond Extract		F-9		H-9	
Alum	Any	F-9,15	C-4,5	H-4	G-1,2,3,6,10
Aluminum Acetate	180	F-1,2,17	C-4,5	H-4	G-5,6,10
Aluminum Acetate	65%	F-15	C-4,5	H-4	G-5,6,10
Aluminum Chloride	Any	F-1,2,9,15,17	C-4,5	H-12	G-2,3,6,10,11
Aluminum Fluoride		F-9		H-9	
Aluminum Hydroxide	70	F-1,2,6,9	C-1,2,6	H-2,9,13	
Aluminum Nitrate	Any	F-1,2,15,17	C-2	H-4	G-2,3,6,10
Aluminum Oxychloride		F-9		H-9	
Aluminum Potassium Sulfate		F-9		H-9	
Aluminum Sulfate	70	F-6,9,15	C-1,2	H-1,2,9	G-2,3,5,6,10
Amino Acids	150	F-1,2	C-2	H-4	G-5
Aminoethanolamine	225	F-1,2	C-1,2	H-2	G-5,6
Ammonia	30%	F-2,18	C-1	H-2,4,9,12	G-2,3,6,10,13
Ammonia Liquid Anhydrous	Note 3,8	F-6,7,9,21	C-1	H-2,4,9,12	G-2,3,6,10
Ammonia Gas(Dry)	Note 3,8,11	F-1,2,6,9,17,19	C-1	H-1,2,9,12	G-2,3,10,11
Ammonia Gas(Wet)	Note 3,8,11	F-5,6,9,19	C-2	H-4,9,12	G-2,3,5,10,11
Ammonium Acetate	Any	F-9	C-2	H-4,12	G-5

Core Material & Band Ring for Bags:		Gasket Material:				
H-1 - Tinned Steel		G-1 - Asbestos Substitute		G-10 - Ethylene Propylene (EPM, EPR & EPDM)		
H-2 - 304 Stainless Steel		G-2 - Buna N		G-11 - Hypalon ¹		
H-4 - 316 Stainless Steel		G-3 - Neoprene		G-12 - Cork		
H-9 - Polypropylene		G-4 - Plant Fiber		G-13 - Silicone		
H-10 - Passivated 316 Stainless Steel		G-5 - Teflon ³		See page 16 for Properties of Gasket Materials Chart		
H-12 - Glass Filled Polypropylene		G-6 - Butyl Rubber		¹ A Pennwalt trademark		
H-13 - Nylon		G-7 - Buna N FDA (Tasteless, Odorless, Non- Toxic)		² A W.L. Gore & Associates trademark		
		G-8 - Natural Rubber		³ A Du Pont trademark		
		G-9 - Viton				
% Concentration		Temp. F ^a	Filter Media	Container	Core	Gasket
Ammonium Bicarbonate	Any	125	F-9	C-2	H-4,12	G-3,5,10
Ammonium Bicarbonate	50%	160	F-1,2,15,17	C-2	H-4,12	G-3,5,10
Ammonium Bromide	Any	Note 3,8	F-5,7,9,15	C-4	H-4,9,12	G-5
Ammonium Carbonate	Any	150	F-1,2,9,15,17	C-1	H-9,12	G-3,6,10
Ammonium Chloride	Any	Note 3,8	F-1,2,5,7,9,15,17	C-4	H-4,9,12	G-2,3,6,10,11
Ammonium Fluoride	Any	Note 3,8	F-5,9	C-4	H-9,12	G-3,5
Ammonium Fluoride	40%	150	F-5,9,15	C-4	H-12	G-3,5
Ammonium Hydroxide	28%	150	F-1,2,9,15,17,18,20,21	C-1,2	H-2,9,12	G-3,6,10,11,13
Ammonium Hyposulfite	Any	180	F-1,2	C-2	H-2	G-3,5,7
Ammonium Nitrate	Any	Note 3,8	F-5,6,9,15	C-1,2	H-2,6,9,12	G-2,3,6,11
Ammonium Oxalate	5%	Note 3,8	F-9	C-2	H-2,9,12	G-3,7
Ammonium Persulfate	Any	180	F-9,15	C-2	H-2,4,12	G-3,7,10
Ammonium Persulfate	5%	Note 3,8	F-9,15	C-2	H-2,4,9,12	G-3,7,10
Ammonium Persulfate	Any	Note 3,8	F-7,9,15	C-2	H-2,4,9,12	G-2,3,6,10,11
Ammonium Phosphate		140	F-9	C-2	H-2,4,9	G-2,3,5,6,9,10,13
Ammonium Sulfate	Any	Note 3,8	F-7,9,15	C-2	H-2,4,9,12	G-2,3,6,10,11
Ammonium Sulfate	5%	70	F-9,15	C-2	H-2,4,9	G-2,3,5,10
Ammonium Sulfide			F-9	C-2	H-2,10	G-2,3,5,9
Ammonium Thiocyanate	Any	Boil	F-1,2	C-2	H-2	G-5,6
Amyl Acetate	Any	Note 3	F-1,2,15,18	C-1	H-1,2	G-4,5,10
Amyl Alcohol	Any	150	F-1,2,9,15,17,18,21	C-2	H-4,9,12	G-3,5,6,10
Amyl Chloride			F-21	C-2	H-2,4	G-5,6,10
Aniline	100%	150	F-1,2,9,15	C-2	H-2,4	G-5,6,10
Antimony Trichloride			F-9	C-2	H-9	G-5,9,10
Arsenic Acid	Any	Note 3,8	F-9	C-2,4	H-4,9,12	G-2,3,6,10,11
Arsenic Acid	80%	70	F-9,15,19	C-2,4	H-4,9,12	G-2,3,6,10,11
Aqua Regia		Note 11	F-7,9		H-9	G-5,9
Asphalt		70	F-1,2,9	C-1,2	H-1,2,4	G-5,9
Banana Oil		70	F-1,6,15	C-1,2	H-1,2,4,13	G-4,5
Barium Carbonate		Note 11	F-6,15,9	C-2	H-9,13	G-2,3,5,9,10
Barium Chloride	10%	Note 2,8	F-1,2,9,15,17	C-4,5	H-9,12	G-2,3,6,10,11
Barium Hydroxide			F-9		H-9	
Barium Sulfate			F-9		H-9	
Barium Sulfide			F-9		H-9	
Beer			F-1,2,17	C-2	H-2,4	G-2,3,7
Beet Sugar Liquors			F-1,2,9	C-2	H-2,4	G-2,5,6,10,13
Benzaldehyde	100%	70	F-1,6,7,15,17,18,20,21	C-1	H-13	G-5,6,10
Benzene		Note 11	F-1,2,15,17,18,19	C-1	H-1	G-4,9
Benzoic Acid	10%	Note 3,8	F-1,2,9,15	C-2	H-2,9,10,12	G-1,5,9
Benzoic Acid	Any	Note 3,8	F-9,15	C-2	H-2,9,12	G-5,9
Benzyl Alcohol	Any	150	F-1,2,9,15,17	C-1,2	H-1,2,6	G-2,3,10,11
Benzyl Chloride			F-9	C-2	H-9	G-5,9
Bismuth Carbonate			F-9	C-2	H-9	G-5,7,9
Bleach			F-9	C-2	H-9	G-5,10
Borax			F-9	C-2	H-2,9,10	G-3,5,9

Key for Selection Guide

Filter Media:			Container Material:		
F-1 - Rayon		F-13 - Phenolic Resin Pleated		C-1 - Steel	
F-2 - Cotton		Paper (718 size)		C-2 - Stainless Steel	
F-3 - Acetate		F-15 - Polyester		C-4 - Rubber Lined	
F-5 - Orlon (Acrylic)		F-17 - Phenolic Resin Pleated		C-5 - Special (Kynar ¹ , PVC, Fluoroshield ² , etc.)	
F-6 - Nylon		Paper (2 1/2" Diameter)		C-6 - Carpenter20	
F-7 - Glass Fiber		F-18 - PCC		C-7 - Plastic	
F-9 - Polypropylene		F-19 - RBC		C-8 - Fiberglass Reinforced Plastic	
F-10 - Cranite™ (Fullers Earth)		F-20 - Polymate			
F-11 - Rayon Cellulose		F-21 - Advantage			
F-12 - Cotton Waste & Excelsior		See page 16 for Properties of Filter Media Materials Chart			

% Concentration	Temp. F°	Filter Media	Container	Core	Gasket	
Boric Acid	10%	Note 3,8	F-1,2,9,15,17	C-2	H-1,2,9,12	G-2,3,4,5,6,10,11
Boric Acid	Any	Note 3,8	F-9,15	C-2	H-1,4,9,12	G-2,3,4,5,6,10,11
Brandy			F-1,2	C-2	H-2	G-7
Brine			See Water, Salt			
Bromine Anhydrous	100%	Note 3	F-1,2	C-5	H-4	G-5,9
Bromine Water	Any	Note 3	F-7	C-2	H-2,4	G-5,9
Bromotoulene						
Butane Gas			F-1,2,15,17	C-1	H-1	G-2,3,9
Butanoic Acid			F-1,6,9	C-2	H-1,2,4,13	G-5,9
Butyl Acetate	Any	70	F-1,2,18,19,20,21	C-1	H-2,4	G-4,5
Butyl Alcohol (Butanol)	Any	150	F-1,2,9,15,17,18,19,20,21	C-1	H-1,9,12	G-2,3,4,11,13
Butyl Cellosolve		70	F-1,9,18,21	C-2	H-1,2,4,9	G-6,10
Butyl Chloride		70	F-1	C-1,2	H-2,4	
Butylene		70	F-1,6	C-1,2	H-1,2,4,13	G-5,9
Butylphthalate			F-9	H-9		
Calcium Carbonate			F-5,6,9	C-2	H-2,9,10	G-2,3,5,9
Calcium Chlorate			F-9	C-2	H-2,9,10	G-2,3,5,9
Calcium Chloride	Any	Note 2,8	F-1,5,9,15,17	C-2	H-4,9,12	G-2,3,6,10
Calcium Hydroxide	Any	Note 3,8	F-6,9	C-4	H-4,9,12,13	G-5,10
Calcium Hydroxide	5%	150	F-1,2,9,17	C-2	H-4,9,12	G-5,10
Calcium Hypochlorite	Any	Note 3,8	F-5,9	C-4,5	H-4,9,12	G-5,6,9,10,11
Calcium Nitrate	Any	Note 3,8	F-1,2,9,15,17,21	C-1	H-2,9,12	G-2,3,6,10,11
Calcium Phosphate			F-9	H-9		
Calcium Sulfate			F-9	C-2,5	H-2,9,10	G-2,3,5,7,9
Calcium Sulfide			F-9	C-2	H-9	G-5,7,9
Calgonite			F-9	H-9		
Cane Sugar	Any	Note 2	F-1,2,3,9	C-1,2	H-2,4	G-5,7
Caprolactam	100%	160	F-7	C-2	H-2	G-5
Carbolic Acid			See Phenol			
Carbon Dioxide (Gas)	Any	225	F-1,2,7,15,17,18,20	C-1	H-1	G-2
Carbon Dioxide/Ethylene Oxide Mixture 90/10		Note 2	F-1,2	C-2	H-2	G-5,13
Carbon Disulfide		Note 3,8	F-1,2,15,20,21	C-2	H-2,4,9,12	G-5,9
Carbon Monoxide		Note 2,3	F-1,2	C-1	H-1	G-2
Carbon Monoxide		180	F-1,2,7,9,15	C-1	H-1	G-2
Carbon Tetrachloride (Dry)		Note 2	F-1,2,6,15,18	C-1	H-1	G-4,5,9
Carbon Tetrachloride (Wet)		Note 2	F-1,2,6,15	C-2	H-13,2	G-4,5,9
Carbonated Water		100	F-1,2,6,9	C-2	H-2,4,9,13	G-2,3,5,6,9,10,13
Carbonic Acid	Any	100	F-1,2,6,7,9,21	C-2	H-2,4,9,12,13	G-5,9,13
Cascade (1%)			F-9	H-9		
Casein			F-9	C-2	H-9	G-2,5,7,9
Castor Oil		Note 2,8	F-1,2,9,19	C-1,2	H-2,9,12	G-2,3,9,11
Caustic Potash			See Potassium Hydroxide			
Caustic Soda			See Sodium Hydroxide			
Cellosolve			F-9,20	C-1,2,4	H-9	G-5,9
Cetyl Alcohol			F-5,6,9		H-9,13	G-5

Core Material & Band Ring for Bags:	Gasket Material:	
H-1 - Tinned Steel	G-1 - Asbestos Substitute	G-10 - Ethylene Propylene (EPM, EPR & EPDM)
H-2 - 304 Stainless Steel	G-2 - Buna N	G-11 - Hypalon ¹
H-4 - 316 Stainless Steel	G-3 - Neoprene	G-12 - Cork
H-9 - Polypropylene	G-4 - Plant Fiber	G-13 - Silicone
H-10 - Passivated 316 Stainless Steel	G-5 - Teflon ²	See page 16 for Properties of Gasket Materials Chart
H-12 - Glass Filled Polypropylene	G-6 - Butyl Rubber	¹ A Pennwalt trademark
H-13 - Nylon	G-7 - Buna N FDA (Tasteless, Odorless, Non- Toxic)	² A W.L. Gore & Associates trademark
	G-8 - Natural Rubber	³ A Du Pont trademark
	G-9 - Viton	

% Concentration		Temp. F ^o	Filter Media	Container	Core	Gasket
Chloroacetic Acid		70	F-9	C-2	H-9	G-5
Chlorinated Hydrocarbons		Note 2	F-1,2,10	C-1	H-1	G-1,4,5,9
Chlorinated Paraffin		Note 2	F-1,2	C-1	H-1	G-1,4,5,9
Chlorine Gas(Dry)	Any	Note 3	F-5,7,15	C-4,5,6	H-4	G-5,9
Chlorine Gas(Wet)	Any	Note 3	F-5,7,15	C-5		G-1,5,9
Chlorine Water	Any	Note 3	F-5,7,15	C-4,5		G-1,3,5,9
Chlorobenzene		200	F-1,2,5,6,7,15,19	C-2	H-2,4,13	G-5,9
Chloroform	Any		F-1,2,6,15,18,19	C-1	H-1,13	G-1,4,5,9
Chlorophane			F-1,2	C-1	H-1	G-1,4,5,9
Chocolate Syrup			F-9		H-9	
Chlorosulfonic Acid		100		C-2	H-4	G-5
Chrome Alum			F-9		H-9	
Chromic Acid	10%	100	F-7,9,15,20,21	C-6	H-4,9,12	G-5,9
Chromic Acid	Any	200	F-7,9	C-6	H-4	G-5,9
Chromic Sulfate	Any	140	F-7,9,15	C-4	H-4,12	G-5
Cider			F-1,9	C-4	H-9	G-2,3,6,9,10,13
Citric Acid	Any	Note 3,8,11	F-1,2,9,17,18,19,21	C-2	H-2,9,12	G-1,2,3,6,7,10,13
Cobalt Carbonate	10%		F-2	C-2	H-1	G-5
Coconut Oil		Note 2	F-1,2,10,19	C-1,2	H-1,2	G-2,6,7,12
Cod Liver Oil			F-9		H-9	
Code Oven Gas			F-9		H-9	
Corn Oil		Note 2	F-1,2,9	C-1,2	H-1,2	G-2,6,7,12
Cotton Seed Oil		Note 2	F-1,2,6,9,10,18,20,21	C-1,2	H-1,2	G-2,6,7,12,13
Lard		Note 2	F-1,2,9,10	C-1,2	H-1,2	G-2,6,7,12
Peanut Oil		Note 2	F-1,2,9,10	C-1,2	H-1,2	G-2,6,7,12
Soybean Oil		Note 2	F-1,2,9,10	C-1,2	H-1,2	G-2,6,7,12
Coffee Extract		70	F-1,6,9,15	C-2	H-2,4,13	G-2,3,5,6,13
Cola Syrup		70	F-1,9	C-2	H-2,4,9	G-5
Copper Ammonium Acetate		Note 3	F-9	C-2	H-4	G-5,6
Copper Chloride			F-9		H-9	
Copper Cyanide			F-9		H-9	
Copper Fluoride			F-9		H-9	
Copper Nitrate			F-9		H-9	
Copper Sulfate	Any	Note 3,8	F-5,9,15	C-2,4	H-2,4,9,12	G-1,2,3,9,10,11
Corn Syrup	Any	Note 2	F-1,2	C-2	H-2	G-5,7
Cresol, Cresylic Acid		Note 3	F-1,2	C-2	H-4	G-1,5,9
Cuprous Chloride			F-9		H-9	
Cyclohexanol			F-9,18		H-9	G-10
Cyclohexanone		70	F-1,2	C-2		G-5
Decalin			F-9		H-9	
Detergents			F-1,2,17	C-1	H-1	G-1,5,6,10
Dextrin			F-9		H-9	
Dextrose			F-1,2,9	C-1,2	H-1,2,4,9	G-2,3,5,6,9,10,13
Diazo Salts			F-9		H-9	
Diacetone Alcohol			F-1,2,17	C-1	H-1	G-1,5,6,10

Key for Selection Guide

Filter Media:			Container Material:		
F-1 - Rayon		F-13 - Phenolic Resin Pleated	C-1 - Steel		
F-2 - Cotton		Paper (718 size)	C-2 - Stainless Steel		
F-3 - Acetate		F-15 - Polyester	C-4 - Rubber Lined		
F-5 - Orlon (Acrylic)		F-17 - Phenolic Resin Pleated	C-5 - Special (Kynar1, PVC, Fluoroshield ² , etc.)		
F-6 - Nylon		Paper (2 1/2" Diameter)	C-6 - Carpenter20		
F-7 - Glass Fiber		F-18 - PCC	C-7 - Plastic		
F-9 - Polypropylene		F-19 - RBC	C-8 - Fiberglass Reinforced Plastic		
F-10 - Cranite™ (Fullers Earth)		F-20 - Polymate			
F-11 - Rayon Cellulose		F-21 - Advantage			
F-12 - Cotton Waste & Excelsior		See page 16 for Properties of Filter Media Materials Chart			
% Concentration	Temp. F"	Filter Media	Container	Core	Gasket
Dibromochloropropane		F-9	C-1w/waterC-2w/o water	H-1	G-2,5,10
Dibutyl Phthalate	Any	F-1,2	C-1	H-9,12	G-1,4,5,9
Dibutyl Phthalate	Any	F-9	C-1	H-9,12	G-1,4,5,9
Dichloroethylene	Note 11	F-1,2,6,9,19	C-1	H-1,13	G-1,4
Diethanolamine	Note 3	F-1,2,6,9,15,20,21	C-1	H-1,13	G-2,3
Diethylene Glycol	Note 2	F-1,2,9,17,18,21	C-1	H-1	G-1,2,3,6,9
Diglycolic Acid		F-9		H-9	
Diisooctyl Phthalate		F-9		H-9	
Dimethyl Fluoride	Note 2	F-5	C-4,5	H-4	G-5
Dimethyl Formamide	100%	F-7,9,18,21	C-2	H-2,4,9,12	G-4,5
Dimethyl Formamide	50%	F-7,9,18,21	C-2	H-2,4,9,12	G-4,5
Dimethyl Phthalate	Any	F-1,2,17,19	C-1	H-1	G-5,6,9,10
Dimethyl Terephthalate	Any	F-7	C-2	H-2,4	G-5
Diphenyl Oxide	70	F-2,9	C-1,2	H-1,2,4,9	G-5,9
Dioctyl Phthalate	100%	F-1,2,9,15	C-1	H-1	G-6,9,10
Dioxane	100%	F-15	C-2	H-2,4	G-5,6,10
Emulsifiers		F-9		H-9	
Epichlorohydrin	Note 2	F-1,2,17	C-4	H-4	G-5,6,10
Ethanolamine	70	F-1,9	C-1,2	H-1,2,4,9	G-5
Ether		F-1,2,9,15,17,19	C-1,2	H-2,9,12	G-1,5
Ethyl Acetate	150	F-1,2,9,15,17,18,19	C-1	H-2,4,9,12	G-1,4,5,6,10
Ethyl Acrylate	70	F-2	C-2	H-4	G-1,5
Ethyl Alcohol		F-1,2,9,15,17,18,19,21	C-1,2	H-1,2,9,12	G-1,2,3,6,7,10,13
Ethyl Cellulose	70	F-9,20	C-1,2	H-2,4,9	G-5
Ethyl Chloride	Note 3	F-1,2	C-2,5	H-1,2,4	G-2,3,6,9,10
Ethyl Ether		F-1,2,9,15,17,18,19,20,21	C-1,2	H-2,9,12	G-1,5
2 Ethylhexyl Acrylate	70	F-2	C-2	H-4	G-1,5
Ethylene	Liquid Gas	F-1,2	C-2	H-2,4	G-1,5,8
Ethylene Amine		F-9		H-9	
Ethylenediamine	100%	F-1,2,9,17	C-1,2	H-2,9,12	G-2,3,5,6,10
Ethylene Dichloride		F-1,2,18,20,21	C-1,2	H-2,4,9,12	G-5,9
Ethylene Glycol	Any	F-1,2,9,13,18,19,20,21	C-1	H-1,13(70°)	G-1,2,3,4,5,6
Ethylene Oxide	100%	F-1,2,17,18,19	C-2	H-2,4	G-1,5
Fatty Acids	Any	F-1,2,5,9,15,17	C-2,5	H-2,4,9,12	G-2,5,9
Ferric Ammonium Sulfate	Any	F-9,15	C-4,5	H-9,12	G-2,3
Ferric Chloride	25%	F-5,7,9,15	C-4,5	H-9,12	G-1,2,5,6,9,10
Ferric Chloride	70%	F-5,7,9,15,18,20,21	C-4,5	H-9,12	G-2,5,6,9,10
Ferric Nitrate	Any	F-9,15	C-2	H-2,4,9,12	G-2,3,5,6,9,10
Ferric Potassium Sulfate	Any	F-7,15	C-4,5	H-4	G-2,3,5
Ferric Sulfate	Any	F-7,15,18,21	C-4,5	H-4	G-2,3,5
Ferrous Chloride	70	F-6,9,15		H-9,13	
Firquel		F-2,10	C-1	H-1	G-5,6,9,10
Fish Oils	70	F-1,9	C-2	H-1,2,4,9	G-2,5,6
Floor Wax		F-9		H-9	
Fluoboric Acid		F-9		H-9	

Core Material & Band Ring for Bags:		Gasket Material:				
H-1 - Tinned Steel		G-1 - Asbestos Substitute		G-10 - Ethylene Propylene (EPM, EPR & EPDM)		
H-2 - 304 Stainless Steel		G-2 - Buna N		G-11 - Hypalon ¹		
H-4 - 316 Stainless Steel		G-3 - Neoprene		G-12 - Cork		
H-9 - Polypropylene		G-4 - Plant Fiber		G-13 - Silicone		
H-10 - Passivated 316 Stainless Steel		G-5 - Teflon ²		See page 16 for Properties of Gasket Materials Chart		
H-12 - Glass Filled Polypropylene		G-6 - Butyl Rubber		¹ A Pennwalt trademark		
H-13 - Nylon		G-7 - Buna N FDA (Tasteless, Odorless, Non- Toxic)		² A W.L. Gore & Associates trademark		
		G-8 - Natural Rubber		³ A Du Pont trademark		
		G-9 - Viton				
% Concentration		Temp. F ^o	Filter Media	Container	Core	Gasket
Fluosilic Acid		70	F-1,9	C-2	H-9	G-5,6
Formaldehyde	10%	70	F-7,9,15,20	C-2,4	H-2,4,9,12	G-2,3,5,6,10
Formalin	40%		F-1,9	C-2	H-2,4,9	G-5
Formic Acid	Any	Note 2,8	F-5,7,9,15,18,20,21	C-2,6	H-4,9,12	G-2,3,5,13
Freon 11	Any	Note 3,8	F-1,2,15,18,20,21	C-2	H-1,2,4	G-9,11
Freon 12	Any	Note 3,8	F-1,2,15,18,19,20,21	C-2	H-1,2,4	G-2,3,9,11
Freon 22	Any	Note 3,8	F-1,2,15,18,19,20,21	C-2	H-1,2,4	G-1,3,5,6,10
Freon Ethylene Oxide Mixture	12/88	-30	F-1,2,20,21	C-2	H-2	G-5
Fructose			F-9		H-9	
Fruit Juices		70	F-1,9	C-2	H-9	G-2,3,5,6,9,13
Fuel Oils			F-1,2,6,7,9,15,17,19	C-1,2	H-1,2,9	G-2,3,4,5,9
Furfural	Any		F-2,9,19	C-1	H-1	G-5
Galic Acid			F-9		H-9	
Gas, Mfg., Natural			F-1,2,17	C-1	H-1,3	G-1,2,3,4
Gear Box Oil			F-9		H-9	
Gelatin	Any	Note 2,8	F-1,2,3,15,17	C-2	H-2,4	G-2,3,7,9,10
Glucose			F-9		H-9	
Glue			F-9		H-9	
Glycerin	100%	Note 2,8	F-1,2,13,17,18,21	C-1,2	H-1,2,4	G-1,2,3,7,13
Glycol			F-6,9		H-9,13	
Glycol Monoether		70	F-1,9	C-2	H-2,4,9	G-2,3,5,9,10
Glycol Solvents		Note 2,3	F-1,2,9	C-1	H-1	G-1,5,9
Glycolic Acid			F-9		H-9	
Green Soap Solution		70	F-9		H-9	G-5,6,9,10
Green Sulfate Liquors			F-9		H-9	G-5,6,9,10
Gum Arabic	Any	Note 3	F-1,2	C-2	H-2	G-3,4,5
Helium Gas			F-1,2,17,18,19,21	C-1	H-1	G-2,3,6,9,10,13
Heptane			F-1,2,17,18,21	C-1	H-1	G-2,9,13
Hexadecyl Alcohol			F-9		H-9	
Hexane			F-1,2,6,7,9,15,18,20,21	C-1,2	H-1,2,4,9,13	G-2,3,5
Hexanol Tertiary			F-9		H-9	
Honey			F-2	C-2	H-2,4	G-2,3,5,9,10
Hydraulic Oils (Phosphate Ester)		Note 2	F-1,2,6,10,11,18,20,21	C-1	H-2,13	G-2,6,9,13
Hydraulic Oils (Skydrol 500)		Note 2	F-1,2,10,17,18,20,21	C-1	H-1	G-6,10
Hydrolubes		Note 2	F-13	C-1	H-1	G-2,5,9,10
Hydrazine			F-7,18,21	C-2	H-4	G-3,5,6,9,10
Hydrobromic Acid	50%	140	F-9	C-5	H-12	G-5
Hydrochloric Acid	20%	150	F-5,7,9,15	C-4,5	H-4,9,12	G-1,5,9
Hydrochloric Acid	5%	160	F-7,9,19		H-9	G-2,3,5,6,9,10
Hydrochloric Acid	35%	Note 3,8	F-5,7,9	C-4,5	H-4,9,12	G-1,5,9
Hydrochloric Acid	10%		F-9,20,21		H-9	
Hydrochloric Acid (Wet)		70	F-7	C-5	H-1	G-5
Hydrochloric Acid	Any	Note 3,8	F-7,9,15	C-2,5	H-4,9,12	G-5,6,9,10,11
Hydrofluoric Acid	48%	Note 3,8	F-5,9	C-4,5	H-9,12	G-5
Hydrogen Chloride			F-9		H-9	

Key for Selection Guide

Filter Media:		Container Material:
F-1 - Rayon	F-13 - Phenolic Resin Pleated	C-1 - Steel
F-2 - Cotton	Paper (718 size)	C-2 - Stainless Steel
F-3 - Acetate	F-15 - Polyester	C-4 - Rubber Lined
F-5 - Orlon (Acrylic)	F-17 - Phenolic Resin Pleated	C-5 - Special (Kynarl, PVC, Fluoroshield ² , etc.)
F-6 - Nylon	Paper (2 1/2" Diameter)	C-6 - Carpenter20
F-7 - Glass Fiber	F-18 - PCC	C-7 - Plastic
F-9 - Polypropylene	F-19 - RBC	C-8 - Fiberglass Reinforced Plastic
F-10 - Cranite™ (Fullers Earth)	F-20 - Polymate	
F-11 - Rayon Cellulose	F-21 - Advantage	
F-12 - Cotton Waste & Excelsior	See page 16 for Properties of Filter Media Materials Chart	

% Concentration	Temp. F°	Filter Media	Container	Core	Gasket
Hydrogen Cyanide		F-9		H-9	
Hydrogen Fluoride		F-9		H-9	
Hydrogen Peroxide		F-7,9,20,21	C-2,6	H-2,4,9,12	G-5,9
Hydrogen Phosphide		F-9		H-9	
Hydrogen Sulfide (Dry)	150	F-9,15	C-1,2	H-1,2,12	G-5,6,10
Hydrogen Sulfide (Wet)	150	F-9,15	C-2	H-4,12	G-5,6,10
Hydroquinone	Note 3,8	F-1,2,9,15	C-2	H-2,4,9,12	G-5,9
Hypochlorous Acid		F-9		H-9	
Igepal		F-9		H-9	
Inks		F-19	C-2	H-1	G-5
Iodine		F-9	C-2	H-9	G-9
Insulating Oils - Askarel	Note 2	F-10	C-1	H-1	G-2,9
Insulating Oils - Petroleum Type		F-1,2,10,13	C-1	H-1	G-1,2,3,4,9,12
Isobutyl Alcohol (Isobutanol)	Note 3	F-1,2,6,15,17,18,21	C-1	H-1,13	G-1,3,4,5,6,9,10,11
Isopropyl Alcohol (Isopropanol)	150	F-1,2,6,9,15,17,20,21	C-1	H-1,12,13	G-1,3,4,5,6,9,10,11
Isophorone	150	F-2	C-1	H-1	G-1,5
Kerosene		F-1,2,6,9,15,18,19,20,21	C-1,2	H-1,2,4,9,13	G-2,4,5,6,9
Ketchup	70	F-2,9		H-9	G-2,5,6,9
Ketone Solvents	Note 2,3	F-1,2	C-1	H-1	G-1,5
Lacquer (Unpigmented)		F-1,2	C-1	H-1	G-1,4,5,6,12
Lacquer Thinner		F-1,2	C-1	H-1,2,4	G-1,4,5,6,12
Lactic Acid	Note 3,8	F-5,7,9,15,19	C-4,6	H-4,9,12	G-1,5,9
Lanolin		F-9		H-9	
Lard		F-1,2,6,9,15,19	C-2	H-1,2,4,9,13	G-2,5,10
Latex	Note 3,8	F-1,2,9,17	C-1	H-1,9,12	G-1,3,4,5
Lauric Acid		F-9		H-9	
Lead Acetate		F-6,9,15		H-9,13	
Lestoil		F-9		H-9	
Lime - Sulfur	70	F-2,9		H-4,9	G-3,5,6,9,10,13
Linoleic Acid	100	F-2,9,19	C-4	H-4,9	G-5
Linseed Oil	Note 2,8	F-1,2,9,15,19	C-1,2	H-1,9,12	G-1,2,3,4,5,9,11
Lithium Bromide	65%	F-1,2,9,17	C-1	H-1	G-3,5
Lithium Carbonate	70	F-9		H-9	G-5
Lithium Chloride	200	F-1,2,6,15	C-1,2	H-1,2,4,13	G-2
Lithium Hydroxide	70	F-2,9	C-2	H-1,2,4,9	G-2,5,10
Liquors, Liqueurs		F-9		H-9	
Lube Oil		F-1,2,6,7,18,19,21	C-1,2	H-1,2,4,13	G-2,4,5,9
Lye		F-6,9	C-2	H-2,4,9,13	G-5,6,10
Machine Oils		F-9		H-9	
Magenta Dye	2%	F-9		H-9	
Magnesium Carbonate		F-9		H-9	
Magnesium Chloride	70	F-1,2,6,9,15,19	C-2	H-4,9,13	G-2,3,5,6,9,10,13
Magnesium Hydroxide	70	F-1,2,9	C-2	H-4,9	G-5,6,9,10
Magnesium Nitrate		F-9		H-9	
Magnesium Sulfate	70	F-1,2,9	C-1,2	H-2,4,9	G-2,3,5,6,9,10,13

Core Material & Band Ring for Bags:		Gasket Material:				
H-1 - Tinned Steel		G-1 - Asbestos Substitute		G-10 - Ethylene Propylene (EPM, EPR & EPDM)		
H-2 - 304 Stainless Steel		G-2 - Buna N		G-11 - Hypalon ¹		
H-4 - 316 Stainless Steel		G-3 - Neoprene		G-12 - Cork		
H-9 - Polypropylene		G-4 - Plant Fiber		G-13 - Silicone		
H-10 - Passivated 316 Stainless Steel		G-5 - Teflon ³		See page 16 for Properties of Gasket Materials Chart		
H-12 - Glass Filled Polypropylene		G-6 - Butyl Rubber		¹ A Pennwalt trademark		
H-13 - Nylon		G-7 - Buna N FDA (Tasteless, Odorless, Non- Toxic)		² A W.L. Gore & Associates trademark		
		G-8 - Natural Rubber		³ A Du Pont trademark		
		G-9 - Viton				
% Concentration		Temp. F°	Filter Media	Container	Core	Gasket
Magnesium Sulfite			F-9		H-9	
Maleic Acid			F-9		H-9	
Malic Acid			F-9		H-9	
Maple Syrup			F-9		H-9	
Mayonnaise		70	F-1,2,9	C-2	H-4,9	G-3,5,7,6,9,13
Melamine Resins		70	F-1,2,9		H-9	G-2,5,9
Mercuric Chloride	10%	70	F-1,2,9,15		H-9	G-2,3,5,6,9
Mercuric Cyanide			F-9		H-9	
Mercury			F-6,9,15	C-1,2	H-9,15	G-2,5,9,10
Mercurochrome			F-9		H-9	
Mercurous Nitrate			F-9	C-1,2	H-1,2,4,9	G-2,5,10
Methane			F-1,2,9,15,17,21	C-1	H-1,2,9,12	G-1,2,3,5,9
Methyl Acrylate		70	F-2,17	C-2	H-4	G-1,3,5,6,10
Methyl Alcohol		150	F-1,2,6,9,15,17,18,19,21	C-1	H-1,12	G-1,2,3,4,6,10
Methyl Cellosolve		Note 2,8	F-1,2,9,17,18,21	C-1,2	H-2,6,9,12	G-5,6,10
Methyl Chloride			F-1,2,15,17	C-2,6	H-2,4	G-1,5,9
Methyl Ethyl Ketone		150	F-1,2,9,15,17,18,20,21	C-1	H-1,12	G-1,4,5,6,10
Methyl Isobutyl Carbinol			F-9		H-9	
Methyl Isobutyl Ketone		150	F-1,2,9,15,17,18,20,21	C-1	H-1,12	G-1,4,5,6,10
Methylene Chloride			F-1,2,15,17,18	C-2,6	H-2,4	G-1,5,9,10
Methyl Salicylate			F-15	C-2	H-2,4	G-5,6,10
Methyl Sulfuric Acid			F-9		H-9	
Milk		70	F-1,2,9	C-1,2	H-1,2,4,9	G-2,3,6,9,10,13
Mineral Oil			F-1,2,7,6,9,19	C-2	H-2,4,9,13	G-2,4,5,9
Mineral Spirits		150	F-1,2,9,15,19	C-1	H-1,12	G-1,4,5,6,10
Molasses		Note 2	F-1,2,17	C-1,2	H-1,2	G-3,4,7
Monoethanolamine		Note 3	F-1,2,20,21	C-1,2	H-1,2	G-5,6,10
Monoethanolamine	35%	200	F-1,2	C-1	H-1	G-6
Motor Oil			F-9		H-9	
Mustard		70	F-1,2,9	C-1,2	H-9	G-7,5,9
Naptha			F-1,2,6,7,19	C-1,2	H-1,2,4,13	G-5,9
Napthalene		Note 2,8	F-1,2,9,15	C-1	H-1,9,12	G-4,5,9
Napthalene		70	F-1,2,6,9,15,19	C-1	H-1,9,12,13	G-4,5,9
Natural Gas			F-1,2,9,17	C-1	H-1,2	G-2,3,5,6,9,10
Nickel Acetate			F-9		H-9	
Nickel Chloride	Any	Note 2,8	F-5,7,9,15,17	C-4,5,6	H-4,9,12	G-1,2,3,5,6,9,10
Nickel Chloride	5%	150	F-1,2,9,15,17	C-4,5,6	H-4,9,12	G-1,2,3,5,6,9,10
Nickel Nitrate			F-9		H-9	
Nickel Sulfate	Any	Note 2,8	F-5,7,9,15	C-4,5,6	H-4,9,12	G-1,2,3,5,6,9,10
Nickel Sulfate	5%	150	F-1,2,5,7,9,15,17	C-4,5,6	H-4,9,12	G-1,2,3,5,6,9,10
Nicotine			F-9		H-9	
Nitronic Acid			F-9		H-9	
Nitric Acid	10%	70	F-7,9,15	C-2	H-2,4	G-5,9,10
Nitric Acid	10%	200	F-9,19	C-2	H-2,4	G-5,9,10
Nitric Acid	20%	215	F-7	C-2	H-2,4	G-5,9,10

Key for Selection Guide

Filter Media:		Container Material:
F-1 - Rayon	F-13 - Phenolic Resin Pleated Paper (718 size)	C-1 - Steel
F-2 - Cotton	F-15 - Polyester	C-2 - Stainless Steel
F-3 - Acetate	F-17 - Phenolic Resin Pleated Paper (2 1/2" Diameter)	C-4 - Rubber Lined
F-5 - Orlon (Acrylic)	F-18 - PCC	C-5 - Special (Kynar ¹ , PVC, Fluoroshield ² , etc.)
F-6 - Nylon	F-19 - RBC	C-6 - Carpenter20
F-7 - Glass Fiber	F-20 - Polymate	C-7 - Plastic
F-9 - Polypropylene	F-21 - Advantage	C-8 - Fiberglass Reinforced Plastic
F-10 - Cranite™ (Fullers Earth)	See page 16 for Properties of Filter Media Materials Chart	
F-11 - Rayon Cellulose		
F-12 - Cotton Waste & Excelsior		

% Concentration	Temp. F°	Filter Media	Container	Core	Gasket
Nitric Acid 30%	175	F-7	C-2	H-4	G-5,9,10
Nitric Acid 50%	100	F-5,7,9	C-2,6	H-4	G-5,9
Nitric Acid 60%	70	F-9	C-2	H-2,4	G-5,9,10
Nitric Acid 65%	100	F-7	C-2	H-4	G-5,9
Nitric Acid Fuming	125	F-7	C-2	H-2,4	G-5
Nitrobenzene 70%	100	F-1,2,9,15	C-1	H-2,4	G-5,9
Nitrobenzene 10%	200	F-1,2,6,9,15,19	C-2	H-2,4,13,12	G-5
Nitrogen Gas	Note 2,8	F-1,2,9,15,17,18,20,21	C-1	H-1,9,12	G-1,2,3,4,5,6,13
Nitrogen Oxide		F-1,2	C-2		G-5
Octyl Alcohol	160	F-1,2,9,15	C-1	H-1	G-1,2,3,4,6,10
Oil, Crude		F-1,2,5,6,9,15,19	C-1,2	H-1,2,4,9,13	G-5,8
Oleic Acid Any	100	F-1,2,9,15	C-2,4,5	H-4,9,12	G-5,9
Oleic Acid Any	Note 2,8	F-7,9,15	C-2,4,5	H-4,9,12	G-5,9
Oleomargarine		F-9		H-9	
Oleum	100	F-7	C-2	H-4	G-5,9
Olive Oil	70	F-1,2,9,19		H-2,4,9	G-2,5,9,13
Orange Juice		F-9		H-9	
Oxalic Acid Any	Note 2,8	F-7,9,15,19,20	C-2,5,6	H-2,4,9,12	G-1,3,5,9,10
Oxygen	200	F-7,20,21	C-1,2	H-4	G-3,5,6,9,10
Ozone		F-20,21			G-9,10,13
Paint		F-19	C-1,2	H-1	G-5,9
Palm Oil	70	F-1,2,9	C-1,2	H-2,4,9	G-2,5,9
Palmitic Acid		F-9		H-9	
Paraffin	Note 2	F-1,2,10	C-1	H-1,2	G-5,9
Paraffin Wax		F-9		H-9	
Pentane		F-2,6,7,20,21,19	C-2	H-1,2,4,13	G-2,5,9
Perchloroethylene	Note 2	F-1,2,6,9,13,15,18,19	C-1	H-1,2,4,13	G-1,4,5,9
Petroleum Products					
Aviation Gas		F-1,2,13,15,21	C-1	H-1	G-1,2,4,5,9
Diesel Fuel		F-1,2,10,13,15,21	C-1	H-1	G-1,2,4,5,9
Engine Lube Oil HD	Note 2	F-1,2,11,12,13	C-1	H-1	G-2,3,4,9
Engine Lube Oil - Straight Mineral	Note 2	F-1,2,10,11,12,13	C-1	H-1	G-2,3,4,9
Gasoline		F-1,2,13,15,19	C-1	H-1	G-1,2,4,5,9
Petroleum Ether		F-1,2,5,6,7,18,19	C-1,2	H-1,2,4,13	G-5,9
Hydraulic Oil - Additive	Note 2	F-1,2,11,12,13	C-1	H-1	G-2,3,9
Hydraulic Oil - Straight Mineral	Note 2	F-1,2,10,11,13	C-1	H-1	G-2,3,9
Jet Fuel	Note 1	F-1,2,10,13,15	C-1	H-1	G-1,2,4,5,9
Quench Oils	Note 2	F-1,2,10,11,12,13	C-1	H-1	G-2,3,4,5,9,12
Soluble Cutting Oils	Note 2	F-1,2,13	C-1	H-1	G-2,3,4,5,9,12
Solvents	Note 2	F-1,2,10,12,13,15	C-1	H-1	G-1,2,4,5,9
Viscous Oils	200	F-13	C-1	H-1	G-2,3,4,5,9
Phenol (Carbolic Acid) Any	Note 2,8	F-1,2,7,9,15,20	C-2	H-2,4,9,12	G-5,9
Phenol Formaldehyde Resins		F-1,2	C-1	H-1	G-5,9
Phosphoric Acid Any	0-180	F-9,20	C-2	H-9	G-5,9
Phosphoric Acid Any	200	F-7	C-2,6	H-4	G-5,9

(Free of Soluble Fluorides)

Core Material & Band Ring for Bags:	Gasket Material:	
H-1 - Tinned Steel	G-1 - Asbestos Substitute	G-10 - Ethylene Propylene (EPM, EPR & EPDM)
H-2 - 304 Stainless Steel	G-2 - Buna N	G-11 - Hypalon ¹
H-4 - 316 Stainless Steel	G-3 - Neoprene	G-12 - Cork
H-9 - Polypropylene	G-4 - Plant Fiber	G-13 - Silicone
H-10 - Passivated 316 Stainless Steel	G-5 - Teflon ³	See page 16 for Properties of Gasket Materials Chart
H-12 - Glass Filled Polypropylene	G-6 - Butyl Rubber	¹ A Pennwalt trademark
H-13 - Nylon	G-7 - Buna N FDA (Tasteless, Odorless, Non- Toxic)	² A W.L. Gore & Associates trademark
	G-8 - Natural Rubber	³ A Du Pont trademark
	G-9 - Viton	

% Concentration	Temp. F °	Filter Media	Container	Core	Gasket
Photographic Solutions					
Ferric Cyanide Bleach	Operating	F-1,2	C-2,4	H-4,9,12	G-2,3
Acid Stop Bath	Operating	F-1,2,17	C-2,4	H-4,9,12	G-2,3
Developer	Operating	F-1,2,17	C-2,4	H-4,9,12	G-2,3
Fixer	Operating	F-1,2,17	C-2,4	H-4,9,12	G-2,3
Rinse Water		F-3,17	C-2	H-2,4,9,12	G-2,3
Pickling Brine (Food)	Note 2	F-1,2,17	C-2	H-4	G-7
Pine Oil	70	F-1,2,6,9,15,19	C-2	H-2,4,9,13	G-2,5,9
Phthalic Acid		F-9		H-9	
Picric Acid		F-9		H-9	
Plating Solutions					
Arsenic	150	F-1,2,9,17	C-1	H-12	G-1,5,6,10,11
Brass Cyanide	150	F-1,2,9,17	C-1	H-12	G-1,5,6,10,11
Bronze Cyanide	80	F-1,2,9,15,17	C-1	H-9,12	G-1,5,6,10,11
Cadium Cyanide	100	F-1,2,9,15,17	C-1	H-9,12	G-5,6,10,11
Cadium Fluoborate	100	F-9	C-4	H-4,9,12	G-8
Chrome	145	F-5,9	C-6	H-4,12	G-5,9
Copper-Acid	120	F-9	C-4	H-4,9,12	G-8
Copper-Fluoborate	170	F-9			
Copper-Cyanide	100	F-1,2,9,17	C-1	H-9,12	G-5,6,10,11
Gold Cyanide	160	F-1,2,9,15,17	C-2	H-4,12	G-1,5,6,10,11
Gold Fluoborate	150	F-9	C-4	H-4,12	G-8
Indium Alkaline	80	F-2,9	C-1,2,6	H-4,12	G-1,5,6,10,11
Indium Fluoborate	80	F-9	C-4	H-4,9,12	G-8
Platinum	205	F-2,9	C-2	H-4	G-8
Potassium Bromide	Any	F-9,15	C-6	H-12	G-5,9
Potassium Carbonate	10	F-1,2,9,15,17	C-1,2	H-2,4,12	G-1,2,3,5,6,9,10,11
Potassium Chloride	Any	F-1,2,9,15,17	C-2,6	H-4,9,12	G-1,2,3,4,5,6
Potassium Chromate	Any	F-7	C-2,4	H-4	G-2,3,5
Potassium Cyanide	Any	F-2,6,9,15	C-1,2,6	H-4	G-1,2,3,5,6,9,10,11
Potassium Dichromate	Any	F-9,15	C-1	H-2,4	G-3,6
Potassium Ferricyanide	Note 3,8	F-1,2,9,15	C-2	H-4,9,12	G-5,9
Potassium Ferrocyanide	Any	F-9,15	C-2	H-4	G-5,9
Potassium Hydroxide	Any	F-9	C-1,2	H-2,4,9,12	G-1,5,6,10,11
Potassium Hydroxide	Any	F-6	C-1,2	H-2,4	G-1,5,6,10,11
Potassium Iodide		F-9		H-9	
Potassium Nitrate		F-9		H-9	
Potassium Perborate		F-9		H-9	
Potassium Perchlorate		F-9		H-9	
Potassium Permanganate	5%	F-1,3,9,15	C-2	H-1,2,9,12	G-5,9
Potassium Permanganate	20%	F-9		H-9	
Potassium Persulfate		F-9		H-9	
Potassium Sulfate	5%	F-1,2,6,9,15	C-1,2	H-2,4,9,13	G-2,3,5,9,10
Potassium Sulfide		F-9		H-9	
Potassium Sulfite		F-9		H-9	
Potassium Thiocyanate		F-1,2,15	C-2	H-4	G-1,2,5
Primol D		F-9		H-9	
Propane		F-1,2,15,19	C-1	H-1,2,9	G-1,2,3,4,5

Key for Selection Guide

Filter Media:		Container Material:
F-1 - Rayon	F-13 - Phenolic Resin Pleated	C-1 - Steel
F-2 - Cotton	Paper (718 size)	C-2 - Stainless Steel
F-3 - Acetate	F-15 - Polyester	C-4 - Rubber Lined
F-5 - Orlon (Acrylic)	F-17 - Phenolic Resin Pleated	C-5 - Special (Kynar ¹ , PVC, Fluoroshield ² , etc.)
F-6 - Nylon	Paper (2 1/2" Diameter)	C-6 - Carpenter20
F-7 - Glass Fiber	F-18 - PCC	C-7 - Plastic
F-9 - Polypropylene	F-19 - RBC	C-8 - Fiberglass Reinforced Plastic
F-10 - Cranite™ (Fullers Earth)	F-20 - Polymate	
F-11 - Rayon Cellulose	F-21 - Advantage	
F-12 - Cotton Waste & Excelsior	See page 16 for Properties of Filter Media Materials Chart	

% Concentration	Temp. F°	Filter Media	Container	Core	Gasket
Propargyl Alcohol		F-18			G-2,3,9,10,13
Propionic Acid	70	F-1,2,6,9,15	C-2	H-4,9,13	G-5
Propyl Alcohol (Propanol)	150	F-1,2,6,9,15,17,21	C-1	H-1,9,13	G-1,2,3,4,6,10
Propylene Carbonate	70	F-1,2	C-1	H-1	G-5
Propylene Dichloride		F-18,20			G-9
Propylene Glycol	70	F-1,2,6,9,18,20,21	C-2	H-4,9,13	G-2,5,9,10,13
Propylene Oxide	100% 50	F-1,2	C-2	H-2,4	G-5
Pyridine	100% 70	F-9,15	C-2	H-2,4	G-6,10
Resins		F-19	C-1	H-1	G-5
Rhodium Acid	150	F-9,15	C-4	H-4,9,12	G-8
Rice Bran Oil		F-9		H-9	
Rosin, Light		F-9		H-9	
Rum		F-1,2,17	C-2	H-2	G-2,3,7
Salt Water	Note 2,8	F-1,2,3,6,7,9,15,17,19,20,21	C-4	H-4,9,12,13	G-1,2,3,5,6,9,10,13
Salenic Acid		F-9		H-9	
Salicylic Acid		F-9		H-9	
Shampoo		F-9		H-9	
Shave Lotion	Note 2,8	F-1,2,9,15,17	C-1,2	H-1,2,9,12	G-3,4,7
Shellac	70	F-1,2,9	C-1,2	H-2,4,9	G-2,3,5,10
Shoe Polish		F-9		H-9	
Silicone Oil		F-9		H-9	
Silver Cyanide		F-9		H-9	
Silver Nitrate	30% 200	F-7,9	C-2	H-2,4	G-3,5,7,9,10,11
Silver Nitrate	Any Note 2,8	F-7,9,15	C-2	H-2,4,9,12	G-3,5,7,9,10,11
Soda Ash	70	F-1,2,5,6,9,15,19	C-2	H-2,4,9,12	G-2,3,5,6,9,10,13
Soap Solution (Concentrated)		F-9		H-9	
Sodium Acetate	70	F-1,2,5,9,15	C-1,2	H-2,4,9	G-4,5,10
Sodium Benzoate		F-9		H-9	
Sodium Bicarbonate	Any Note 2,8	F-1,2,9,15,17	C-1,2	H-2,5,9,12	G-1,2,3,5,6,10,11
Sodium Bisulfate	70	F-9,15	C-2	H-9	G-2,3,5,6,9,10,13
Sodium Bisulfite	70	F-9,15	C-2	H-9	G-2,3,5,6,9,10,13
Sodium Borate	70	F-1,2,9	C-2	H-2,4,9	G-2,3,5,6,9,10,13
Sodium Bromide	125	F-1,2,5,9,15	C-2,6	H-4,12	G-5,9
Sodium Carbonate	Any Note 2,8	F-1,2,9,17	C-1,2	H-2,4,9,12	G-1,2,3,5,6,9,10,11
Sodium Carbonate	10%	F-1,2,15,17	C-1,2	H-2,4,12	G-1,2,3,5,6,9,10,11
Sodium Chlorate	Any Note 3	F-7	C-2	H-2	G-5,9
Sodium Chloride	Any Note 2,8	F-1,2,9,15,17	C-2,6	H-4,9,12	G-1,2,3,5,6,9,10,11
Sodium Chlorite	2%	F-9		H-9	
Sodium Chlorite	5%	F-9		H-9	
Sodium Chlorite	10%	F-9		H-9	
Sodium Chlorite	20%	F-9		H-9	
Sodium Cyanide		F-2,6,9,15,17	C-1,2,6	H-1,4	G-1,2,3,6,10,11
Sodium Dichromate		F-9		H-9	
Sodium Ferricyanide		F-9		H-9	
Sodium Ferrocyanide		F-9		H-9	
Sodium Fluoride	Any 80	F-9,15	C-2	H-4,9,12	G-5,9
Sodium Hydrosulfide	45%	F-9	C-2	H-9	G-5,9
Sodium Hydroxide	Any 100	F-9	C-1,2	H-2,4,9,12	G-1,3,5,6,10,11

Core Material & Band Ring for Bags:	Gasket Material:	
H-1 - Tinned Steel	G-1 - Asbestos Substitute	G-10 - Ethylene Propylene (EPM, EPR & EPDM)
H-2 - 304 Stainless Steel	G-2 - Buna N	G-11 - Hypalon ¹
H-4 - 316 Stainless Steel	G-3 - Neoprene	G-12 - Cork
H-9 - Polypropylene	G-4 - Plant Fiber	G-13 - Silicone
H-10 - Passivated 316 Stainless Steel	G-5 - Teflon ²	See page 16 for Properties of Gasket Materials Chart
H-12 - Glass Filled Polypropylene	G-6 - Butyl Rubber	¹ A Pennwalt trademark
H-13 - Nylon	G-7 - Buna N FDA (Tasteless, Odorless, Non-Toxic)	² A W.L. Gore & Associates trademark
	G-8 - Natural Rubber	³ A Du Pont trademark
	G-9 - Viton	

% Concentration		Temp. F°	Filter Media	Container	Core	Gasket
Sodium Hydroxide	Any	250	F-6	C-1,2	H-2,4,13	G-1,3,5,6,10,11
Sodium Hydroxide	1%	70	F-6,9,15	C-1,2	H-2,4,9,12,13	G-1,3,5,6,10,11
Sodium Hypochlorite	10%	200	F-5,9	C-4,5	H-4	G-5,9
Sodium Hypochlorite	Any	140	F-9	C-4,5	H-12	G-5,9
Sodium Hypochlorite	1/2%	200	F-2,9	C-2	H-2,9	G-5,9
Sodium Metaphosphate			F-9		H-9	
Sodium Nitrate	Any	Note 2,8	F-1,2,9,15,17	C-1,2	H-4,9,12	G-6,10,11
Sodium Perborate	1%	160	F-1,2,3,9,15,17	C-2	H-2,12	G-6,9,10
Sodium Phosphate		70	F-1,2,6,9,15	C-2	H-2,4,9,13	G-2,5,6,9,10
Sodium Polysulfide				C-2	H-2,4	G-5
Sodium Silicate	Any	Note 2,8	F-1,2,9,17	C-1	H-1,9,12	G-1,2,3,4,9,10,11
Sodium Sulfate	Any	Note 2,8	F-1,2,9,15,17	C-2	H-2,4,9,12	G-2,3,6,9,10,11
Sodium Sulfide	40%	140	F-1,2,9,17	C-2	H-4	G-2,3,5,6,9,10
Sodium Sulfide	Any	Note 2	F-5	C-2	H-4	G-2,3,5,6,9,10
Sodium Sulfite			F-9		H-9	
Sodium Thiocyanate		Note 2,8	F-1,2,9	C-1,5	H-9,12	G-5
Sodium Thiocyanate	Any	70	F-1,2,9,15	C-1,5	H-9,12	G-5
Sodium Thiosulfate	Any	Note 2,8	F-1,2,9,17	C-2	H-4,9,12	G-1,2,3,5,6,9,10
Stannic Chloride	5%	70	F-1,2,5,6,7,9,15	C-4	H-9,13	G-2,5,6,9,10
Stannous Chloride	5%	70	F-1,2,6,9,15	C-1	H-4,9,13	G-2,3,5,6,9,10
Starch		70	F-1,2,9,15,19	C-2,4	H-4,9	G-2,3,5,6,9,10
Steam		220	F-2,5,6	C-1,2	H-2,4	G-1,5,9
Steam		200	F-2,5,6,19	C-1,2	H-2,4	G-1,5,9
Steam		275	F-5,6	C-1,2	H-2,4	G-1,5,9
Stearates		200	F-1,2,6,9,19	C-1,2	H-1,2,4,9	G-1,5,6,9,10,13
Stearic Acid	Any	200	F-1,2,9,15,17,18,19,20,21	C-2	H-2,4	G-1,2,3,5,6,10,11,13
Stoddard Solvents		70	F-1,2,6,9,15,18,19,20		H-9,13	G-2,5,9
Styrene			F-2,15	C-2	H-4	G-5,9
Sugar Solutions	Any	Note 2	F-1,2,9,17	C-2	H-2,4	G-7
Sucrose			F-9		H-9	
Succinic Acid			F-9		H-9	
Sulfamic Acid			F-9		H-9	
Sulfate Liquors		70	F-9		H-9	
Sulfur Chlorite		70	F-9	C-2	H-9	G-5,9
Sulfur Dioxide (Wet)			F-7,9,15	C-2	H-4,9,12	G-5,6,10
Sulfur Dioxide (Dry)			F-5,7,9,19	C-2	H-4,9,12	G-5,6,10
Sulfuric Acid	10%	70	F-5,7,9,15,19,20,21	C-4,5,6	H-4,9,12	G-1,5,9
Sulfuric Acid	35%	Note 3,8	F-5,7,9,15	C-4,5,6	H-4,9,12	G-1,5,9
Sulfuric Acid	60%	Note 3,8	F-5,7,9,15	C-4,5,6	H-4,9,12	G-1,5,9
Sulfuric Acid	70%	Note 3,8	F-7,9,15	C-4,5,6	H-4,9,12	G-1,5,9
Sulfuric Acid	90+%	Note 3,8	F-7	C-4,5,6	H-4	G-1,5,9
Sulfuric Acid	Fuming	Note 3	F-7	C-4,5,6	H-4	G-1,5,9
Sulfurous Acid	5%	100	F-1,2,19	C-5,6	H-4	G-1,5,9
Sulfurous Acid	Any	200	F-5,7,9	C-5,6	H-4	G-1,5,9
Tallow		70	F-9,19		H-9	
Tannic Acid	Any	100	F-1,2,9,15,17,19	C-2	H-2,4,9,12	G-1,2,5,6,9,10
Tannic Acid	Any	Note 2,8	F-7	C-2	H-2,4	G-1,2,5,6,9,10
Tartaric Acid			F-7,9	C-2	H-4,9	G-2,5,9,13

Key for Selection Guide

Filter Media:		Container Material:
F-1 - Rayon	F-13 - Phenolic Resin Pleated	C-1 - Steel
F-2 - Cotton	Paper (718 size)	C-2 - Stainless Steel
F-3 - Acetate	F-15 - Polyester	C-4 - Rubber Lined
F-5 - Orlon (Acrylic)	F-17 - Phenolic Resin Pleated	C-5 - Special (Kynar [®] , PVC, Fluoroshield [®] , etc.)
F-6 - Nylon	Paper (2 1/2" Diameter)	C-6 - Carpenter20
F-7 - Glass Fiber	F-18 - PCC	C-7 - Plastic
F-9 - Polypropylene	F-19 - RBC	C-8 - Fiberglass Reinforced Plastic
F-10 - Cranite [™] (Fullers Earth)	F-20 - Polymate	
F-11 - Rayon Cellulose	F-21 - Advantage	
F-12 - Cotton Waste & Excelsior	See page 16 for Properties of Filter Media Materials Chart	

% Concentration		Temp. F°	Filter Media	Container	Core	Gasket
Tea			F-9		H-9	
Tetrachlorethylene (Dry)		200	F-1,2,6,7,19	C-1,2	H-1,2,4,13	G-4,5,9
Tetrachlorethane		70	F-1,2,6,7,9,15,19	C-2	H-2,4,13	G-9
Tetrahydrofuran			F-1,2	C-1	H-1	G-5
Tin Acid		150	F-9	C-4	H-4,9,12	G-8
Tin Alkaline		190	F-6,9	C-1	H-4,13	G-1,5,6,10,11
Tin Fluoborate		100	F-9	C-4	H-4,9,12	G-8
Toluene	Any	200	F-1,2,5,6,7,18,19	C-1	H-1	G-1,4,5,9
Toluene Diisocyanate		Note 3	F-1,2	C-2,5	H-4	G-5
Tomato Juice			F-9		H-9	
Transformer Oil			F-9		H-9	
Trichloroacetic Acid			F-9		H-9	
Trichlorethane	Any		F-1,2,5,7,15	C-1	H-1	G-1,4,5,9
Trichloroethylene			F-1,2,6,12,13,15,18,19	C-1	H-1,13	G-1,4,5,9
Triethanolamine		140	F-1,2,9,15	C-1,2	H-1,2	G-1,3,5,10,11
Trisodium Phosphate		70	F-1,2,6,9,15,19	C-1,2	H-2,4,9,13	G-2,3,5,9,10
Tung Oil		70	F-9	C-1,2	H-2,4,9	G-2,5,10
Turpentine		Note 2,8	F-1,2,9,15,19	C-1	H-1,9,12	G-1,2,4,5,9
Ultrasonic Cleaning Solution			F-2	C-2	H-4,9,12	G-8
Urea	Any	200	F-15	C-2		G-5
Urea - Formaldehyde Resins		Note 3	F-1,2,9	C-1	H-1	G-1,4,5
Urine			F-9		H-9	
Vanilla Extract		Note 2	F-1,2	C-2	H-1,2,4	G-5,7
Varnish		Note 2	F-1,2,15,19	C-1	H-1	G-1,4,5
Varsal			F-21			G-2,3,9,10,13
Vaseline			F-9		H-9	
Vinegar		100	F-1,2,9,17	C-1	H-2	G-1,3,5,6,9,10,11
Vinyl Acetate			F-2	C-2	H-4	G-1,5
Vinyl Chloride			F-7 (Must be Dry)	C-2	H-4	G-5
Water - Deionized, Demineralized, Distilled		100	F-3,6,9,15,17,20,21	C-2	H-2,4,13	G-1,2,5,6,7
Water - Drinking		Note 5	F-3,9,17,20,21	C-2,7	H-2,4,9	G-7
Water - Industrial		Note 2,5,8	F-3,6,7,9,15,17	C-1,2	H-9,12,13	G-1,2,3,6,10,11
Wax Crayon			F-9		H-9	
Wax Emulsions		Note 2	F-1,2,17	C-1	H-1	G-14
Wheat Germ Oil			F-9		H-9	
Whiskey and Wines*			F-1,9,17	*C-2	*H-2,4,10	G-7
White Paraffin			F-9		H-9	
Xylene (Xylol)	Any	70	F-1,2,5,6,7,15,18,19	C-1	H-1	G-1,4,5,9
Xylene (Xylol)	Any	200	F-1,2,5,6,7,18,19	C-1	H-1	G-1,4,5,9
Yeast			F-9		H-9	
Zinc Acid		150	F-1,2,9,15	C-4	H-4,9,12	G-8
Zinc Bromide	3%	210	F-1,2,5,7	C-2,4	H-4	G-1,2,3,6,9,10,11
Zinc Bromide	Any	Note 3,8	F-5,7,9	C-2	H-4,9,12	G-1,2,3,6,9,10,11
Zinc Chloride	10%	70	F-1,2,5,9,15,17,18,20,21	C-2,4	H-4,9,12	G-1,2,3,6,9,10,11
Zinc Chloride	20%	175	F-5,9,15,18,20,21	C-2,4	H-4,12	G-1,2,3,6,9,10,11
Zinc Chloride	50%	200	F-15,18,20,21	C-2,4	H-4	G-1,2,3,6,9,10,11
Zinc Chloride	Any	Note 3,8	F-1,2,6,9	C-1,4,5	H-4,9,12,13	G-1,5,6

*passivate on bourbons

Core Material & Band Ring for Bags:	Gasket Material:	
H-1 - Tinned Steel	G-1 - Asbestos Substitute	G-10 - Ethylene Propylene (EPM, EPR & EPDM)
H-2 - 304 Stainless Steel	G-2 - Buna N	G-11 - Hypalon ¹
H-4 - 316 Stainless Steel	G-3 - Neoprene	G-12 - Cork
H-9 - Polypropylene	G-4 - Plant Fiber	G-13 - Silicone
H-10 - Passivated 316 Stainless Steel	G-5 - Teflon ³	See page 16 for Properties of Gasket Materials Chart
H-12 - Glass Filled Polypropylene	G-6 - Butyl Rubber	¹ A Pennwalt trademark
H-13 - Nylon	G-7 - Buna N FDA (Tasteless, Odorless, Non- Toxic)	² A W.L. Gore & Associates trademark
	G-8 - Natural Rubber	³ A Du Pont trademark
	G-9 - Viton	

% Concentration	Temp. F. °	Filter Media	Container	Core	Gasket
Zinc Bright Cyanide	100	F-1,2,9	C-1	H-9,12	G-5,6,10
Zinc Fluoborate**	130	F-6,9	C-4	H-4,13,12	G-8
Zinc Nitrate		F-9		H-9	
Zinc Oxide		F-9		H-9	
Zinc Sulfate	Any	Note 3,8	C-2,4	H-4,9,12	G-5,6
Zinc Sulfate	50%	70	C-4	H-4,9,12	G-5,6

** Note: flush polypropylene cartridges with water before putting on stream to filter plating solutions

Liquatec[■]

Best Solution in Filtration

