GE Healthcare

VWR® | vwr.com
We Enable Science

Great savings

Environmental testing for water

Distributor
GE Healthcare

Physical analysis

Solids analysis

The level of suspended solids in a water sample is determined by pouring a carefully measured volume of water through a preweighed filter with a specified pore size, drying the filter to remove the water, and then weighing the filter again. The weight gain of the filter is a dry weight measure of the particulates present in the water sample expressed in units derived or calculated from the volume of water filtered (typically milligrams per liter).

Suspended solids measurements are typically performed using glass fiber filter circles that need additional preparation prior to use. However, GE has developed ready-to-use 934-AH RTU glass fiber filters, which are supplied in a prewashed and preweighed format and enable considerable time savings in the laboratory. 934-AH RTU filters also provide reproducible results and low background contamination.

Fig 1. Total solids analysis workflow using filtration-based methods.

What are you testing for?	Product	Characteristics and benefits
Solids, including: • total suspended • total dissolved • total volatile	**GF/C™** **934-AH™** **glass fiber filters** Ordering information p. 3	• Conform to requirements of standard methodologies: GF/C for EN 872 (Fig 2); 934-AH for Standard Method 2540D • High loading capacity enabling filtration of very turbid samples • Retention of very fine particles
	934-AH RTU Ordering information p. 3	• Share same benefits as traditional 934-AH glass fiber filters • Ready-to-use format • Prewashed, preweighed according to 2540D • Each pretreated filter comes in an aluminium pan, with the filter weight clearly noted • Each pan has its own unique barcode

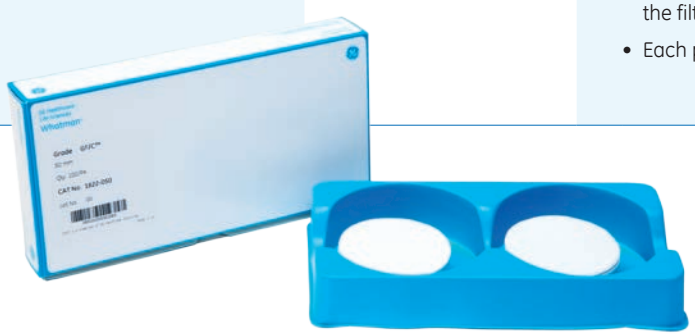

Fig 2. GF/C glass fiber filters meet the requirements of EN 872.

Ordering information

Glass fiber filters for solids analysis, 100/pack

Grades	GF/C	934-AH	934-AH RTU preweighed, prewashed*
Typical particle retention (µm)**	1.2 µm	1.5 µm	1.5 µm
Diameter (mm)	**Cat. No.**	**Cat. No.**	**Cat. No.**
42.5	**28497-685**	**28496-875**	**97040-974**
47	**28497-696**	**28496-886**	**97040-976**
55	**28497-700**	**28496-897**	**97040-978**
70	**28497-721**	**28496-911**	-
90	**28497-743**	**28496-933**	**89410-170**

* Each filter is supplied in an individual aluminum pan
** Particle retention rating at 98% efficiency

Chemical analysis

Dissolved heavy metals

Chemical analyses are commonly performed using analytic instrumentation. Filtration of water samples prior to analysis is good practice in order to remove unwanted particles from the analysis and to protect delicate instrumentation from potentially damaging compounds.

Accurate analysis of heavy metals such as lead or mercury depends on not introducing any interference into the sample from consumables used in the analytical preparation process. Water samples are often high in particulate matter, which can present filtration challenges because the particulates can readily block membrane filters. Traditionally, a glass fiber pre-filter has been used to alleviate this problem. However, filters containing some types of glass fiber can introduce trace metals into the sample. To avoid potential sample contamination, GE offers a syringe filter that incorporates an effective pre-filter composed of polypropylene rather than glass fiber.

GD/XP syringe filters

GD/XP syringe filters can be used with samples that require inorganic ion analysis (e.g., trace metal analysis using inductively coupled plasma-mass spectrometry [ICP-MS]).

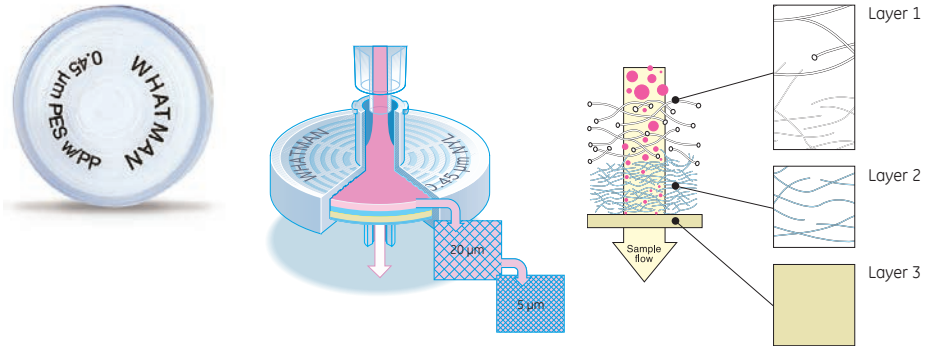

Fig 3. GD/XP syringe filters contain multiple filtration layers, which subsequently reduce blockage and increase volume throughput.

What are you testing for?	Product	Characteristics and benefits
Dissolved heavy metals	**GD/XP syringe filters, 25 mm** (filtration in the lab); Fig 3 Ordering information p. 5	• Pre-filter made of polypropylene for minimization of ion extractables • Integrated prefiltration with a dual-layer prefilter stack and one final 0.45 µm membrane • Easy filtration of hard-to-filter samples • Filtration of larger sample volumes compared to filters without pre-filters
	Polydisc GW and Polycap GW in-line filters (filtration in the field); Fig 4 Ordering information p. 5	• Integrated prefilter • Easy filtration of hard-to-filter samples • Filtration of larger sample volumes compared to filters without pre-filters

Fig 4. Polycap GW (left) and Polydisc GW (right) are designed for sample preparation of ground water samples for the analysis of dissolved heavy metals.

Ordering information

GD/XP syringe filters

Membrane type	Nylon	PVDF	PP	PES	
Pore size (µm)	**Cat. No.**	**Cat. No.**	**Cat. No.**	**Cat. No.**	**Quantity**
0.45	**28137-976**	**28137-980**	**-**	**28137-996**	150/pack
0.45	**10035-524**	**28137-982**	**28137-994**	**10035-526**	1500/pack

In-line filters

Quantity	1/pack	100/pack	20/pack	50/pack
Product	**Cat. No.**	**Cat. No.**	**Cat. No.**	**Cat. No.**
Polydisc GW Filter 50 mm, nylon with quartz fiber prefilter, 0.45 µm	**-**	**-**	**10035-122**	**10035-124**
Polycap GW 75, 0.45 µm, PES membrane	**13503-498**	**10035-490**	**-**	**-**

Dissolved ions

Filters for sample preparation prior to ion chromatography testing should feature very low levels of anion leaching.

What are you testing for?	Product	Characteristics and benefits
Dissolved ions	**Anotop™ IC syringe filters** 	• Contain a proprietary alumina-based Anopore™ membrane that exhibits very low levels of anion leaching (e.g., fluoride, sulfide, nitrate, nitrite) during ion chromatography (IC) testing • Pigment-free PP housing to eliminate sample contamination • Flexibility – available in either 10 mm or 25 mm diameter • Certified and guaranteed low levels of anion leaching

Ordering information Anotop IC syringe filters

Membrane/pore size	Diameter	Quantity	Cat. No.
Aluminum oxide – 0.2 µm	10 mm	100/pack	-
Aluminum oxide – 0.2 µm	10 mm	200/pack	**10035-510**
Aluminum oxide – 0.2 µm	25 mm	200/pack	**28297-720**

Dissolved organic carbons

Organic matter content is usually measured as dissolved organic carbon (DOC), which is an important component of the carbon cycle. DOC is defined as the organic matter that is able to pass through a filter, typically one with a 0.45 µm pore size.

Puradisc Aqua syringe filters are specifically designed for filtration of environmental samples prior to DOC analysis.

What are you testing for?	Product	Characteristics and benefits
Dissolved organic carbons	**Puradisc Aqua 30 syringe filters** 	• Contain prewashed membranes (prior to assembly) to reduce organic carbon level and ensure low background • Designed for aqueous samples • Hydrophilic cellulose acetate membrane, 30 mm diameter

Ordering information Puradisc Aqua syringe filters

Membrane/pore size	Diameter	Quantity	Cat. No.
Cellulose acetate – 0.45 µm	30 mm	50/pack	**10035-110**
Cellulose acetate – 0.45 µm	30 mm	100/pack	**10035-108**
Cellulose acetate – 0.45 µm	30 mm	500/pack	**10035-106**

HPLC, UHPLC, and other analytical techniques

What are you testing for?	Product	Characteristics and benefits
Low solids content	**Puradisc** Ordering information p. 8 	• Wide range of membranes, pore sizes and diameters • Pre-filter: no • Diameter: 4, 13, 25, or 30 mm • Available pore sizes: 0.1, 0.2, 0.45, 0.8, 1.0, 1.2, 5 µm • Membrane materials available: Cellulose acetate, nylon, PES, PVDF, PP, PTFE , GF
	SPARTAN™ Ordering information p. 8 	• HPLC certified • Pre-filter: no • Diameter: 13 or 30 mm • Available pore sizes: 0.2 or 0.45 µm • Membrane materials available: Regenerated cellulose
Hard-to-filter samples	**Whatman GD/X™** Ordering information p. 8 	• For hard-to-filter samples • Pre-filter: multilayer glass filter • Diameter: 13 or 25 mm • Available pore sizes: 0.2, 0.45, 0.7, 1.0, 1.2, 1.5, 2.7, 5.0 µm • Membrane materials available: Cellulose acetate, nylon, PES, PVDF, PP, PTFE, RC
	GD/XP Ordering information p. 8 	• For hard-to-filter samples where analytes of interest are inorganic ions • Pre-filter: Multilayer polypropylene • Diameter: 25 mm • Available pore sizes: 0.45 µm • Membrane materials available: Nylon, PES, PVDF, PP, PTFE
HPLC/GC autosamplers	**Mini-UniPrep™** Ordering information p. 9 	• All-in-one filter and PLASTIC autosampler vial • Pre-filter: no • Dimensions: Once compressed equivalent to 12 mm × 32 mm vial • Available pore sizes: 0.2 or 0.45 µm • Membrane materials available: PTFE, RC, Nylon, PVDF, PES, PP, GMF
	Mini-UniPrep G2 Ordering information p. 9 	• All-in-one filter and GLASS autosampler vial • Pre-filter: no • Dimensions: Once compressed equivalent to 12 mm × 32 mm vial • Available pore sizes: 0.2 or 0.45 µm • Membrane materials available: PTFE, Nylon, PVDF, PP, GMF, RC

RC = regenerated cellulose, PVDF = polyvinylidene difluoride, PTFE = polytetrafluoroethylene, PP = polypropylene, PES = polyethersulfone, GMF = glass microfiber filter, GF = glass fiber, CA = cellulose acetate

Regenerated cellulose membranes

Suitable for filtration of both aqueous and organic samples.

We offer a range of filters for sample preparation for commonly used analytical techniques in water monitoring such as:

- HPLC or UHPLC
- Continuous flow analysis
- Gas chromatography (GC)

Ordering information – chemical analysis of water

Puradisc syringe filters

Membrane type/ diameter	Nylon 25 mm	PVDF 25 mm	PTFE 25 mm	PP 25 mm	PES 25 mm		CA 30 mm	
Pore size	**Cat. No.**	**Cat. No.**	**Cat. No.**	**Cat. No.**	**Cat. No.**	**Quantity**	**Cat. No.**	**Quantity**
0.2 µm	**28205-510**	**89233-770**	**28137-932**	**28137-958**	**28137-942**	200/pack	**89233-772**	100/pack
0.2 µm	**28205-530**	-	**70240-162**	**28137-974**	**14233-762**	1000/pack	**89233-774**	500/pack
0.45 µm	**28205-512**	**70240-170**	**28137-934**	**28137-960**	**28137-944**	200/pack	**11008-550**	100/pack
0.45 µm	**28205-532**	**70240-174**	**70240-160**	**28137-967**	**28455-248**	1000/pack	**89233-776**	500/pack

SPARTAN syringe filters

Diameter		13 mm	13 mm with mini-tip	30 mm	
Membrane	**Pore size**	**Cat. No.**	**Cat. No.**	**Cat. No.**	**Quantity**
Regenerated cellulose	0.2 µm	**52844-782**	**52844-786**	**97005-228**	100/pack
Regenerated cellulose	0.2 µm	**97005-224**	**97005-226**	**97005-230**	500/pack
Regenerated cellulose	0.45 µm	**52844-780**	**52844-784**	**97005-232**	100/pack
Regenerated cellulose	0.45 µm	**97005-220**	**97005-222**	**97005-234**	500/pack

GD/X syringe filters (glass fiber prefilter), 25 mm diameter

Membrane type	Nylon	PVDF	PTFE	PP	PES	CA	RC	
Pore size	**Cat. No.**	**Cat. No.**	**Cat. No.**	**Cat. No.**	**Cat. No.**	**Cat. No.**	**Cat. No.**	**Quantity**
0.2 µm	**28138-154**	**28138-158**	**28138-162**	**28138-170**	**28138-166**	**28138-174**	**89233-780**	150/pack
0.2 µm	**28138-192**	**28138-196**	**28138-200**	-	**89233-778**	-	-	1500/pack
0.45 µm	**28138-156**	**28138-160**	**28138-164**	**28138-172**	**28138-168**	**28138-176**	**89233-782**	150/pack
0.45 µm	**28138-194**	**28138-198**	**28138-202**	**14005-864**	**14217-554**	**80087-208**	**89233-784**	1500/pack

GD/XP syringe filters (polypropylene prefilter), 25 mm diameter

Membrane type	Nylon	PVDF	PTFE	PP	PES	
Pore size	**Cat. No.**	**Cat. No.**	**Cat. No.**	**Cat. No.**	**Cat. No.**	**Quantity**
0.45 µm	**28137-976**	**28137-980**	**28137-984**	**28137-988**	**28137-996**	150/pack
0.45 µm	**10035-524**	**28137-982**	-	**28137-994**	**10035-526**	1500/pack

Mini-UniPrep with polypropylene housing

Membrane type			PTFE	PVDF	Nylon	PP	RC	PES	
Pore size	**Housing**	**Cap**	**Cat. No.**	**Cat. No.**	**Cat. No.**	**Cat. No.**	**Cat. No.**	**Cat. No.**	**Quantity**
0.2 µm	Translucent	Standard	**14224-946**	**14224-978**	**14224-976**	**14224-930**	**97015-564**	**14224-914**	100/pack
0.45 µm	Translucent	Standard	**28137-758**	**28137-762**	**28137-754**	**28137-766**	**97015-562**	**10147-936**	100/pack
0.2 µm	Amber	Standard	**84009-508**	**84009-504**	**84009-506**	**84009-512**	-	**84009-510**	100/pack
0.45 µm	Amber	Standard	**83009-802**	**84009-514**	**89233-786**	**83009-806**	-	**83009-804**	100/pack
0.2 µm	Translucent	Slit septum	**12000-528**	**12000-524**	**12000-526**	**12000-532**	-	**12000-530**	100/pack
0.45 µm	Translucent	Slit septum	**83009-816**	**83009-808**	**83009-814**	**83009-820**	-	-	100/pack

Mini-UniPrep G2 with inner glass storage vial (hand or multicompressor required for use)

Membrane type			PTFE	PVDF	Nylon	PP	GMF	RC	
Pore size	**Housing**	**Cap**	**Cat. No.**	**Cat. No.**	**Cat. No.**	**Cat. No.**	**Cat. No.**	**Cat. No.**	**Quantity**
0.2 µm	Translucent	Standard	**89234-956**	**89234-964**	**89234-970**	**89234-974**	-	**10036-036**	100 + 1 HC
0.2 µm	Translucent	Standard	**89234-954**	**89234-962**	–	**89234-972**	-	**10036-034**	100/pack
0.45 µm	Translucent	Standard	**89234-960**	**89234-968**	–	–	**10035-926**	**10035-922**	100 + 1 HC
0.45 µm	Translucent	Standard	-	**89234-966**	–	–	**10036-030**	**10035-920**	100/pack
0.2 µm	Amber	Standard	**89234-976**	**89234-978**	-	-	-	-	100 + 1 HC
0.2 µm	Translucent	Slit septum	**89234-980**	-	-	-	-	-	100 + 1 HC
0.45 µm	Translucent	Slit septum	**89234-982**	-	-	-	**10035-948**	-	100 + 1 HC
0.45 µm	Translucent	Slit septum	-	-	-	-	**10036-032**	-	100/pack

HC = Hand compressor

Compressors for Mini-UniPrep

Compressor suitable for	Description	Cat. No.	Quantity
Mini-UniPrep G2 (glass vial)	Hand compressor - 1 position	**89236-660**	1/pack
	Multi Compressor - 8 positions (includes 1 tray)	**89499-526**	1/pack
Mini-UniPrep (plastic vial)	Multi Compressor - 6 positions	**14227-832**	1/pack

Fig 5. Mini-UniPrep G2 Multi Compressor.

Microbiological analysis

Bacterial count and/or detection

MBS I system and membranes

The MBS I filtration system is designed for laboratories that handle high numbers of samples for microbiological quality control.

Workflow

(A) Tight sealing of funnel and membrane reducing any cross contamination to a minimum by special sealing technique.

(B) Flexibility.

- Volume—either 100 ml or 350 ml
- Material—either ABS or PP
- PP version can be autoclaved up to 50 times.

(C) Easy removal of the membrane.

Membranes

We provide a wide and versatile range of filtration membranes that deliver high-quality performance consistently. The appropriate membrane fi ter choice will depend on the methodology being followed. ME and Microplus membranes are sterile and individually packed.

Membrane material	Cellulose mixed ester	High-flux cellulose nitrate	Nylon (polyamide)	Polycarbonate
Product name	ME	MicroPlus	NL	Nuclepore™
Color	White, black or green	White or black	White	White or black
Pore size	0.2 µm/0.45 µm/ 0.6 µm/0.8 µm	0.45 µm	0.2 µm/0.45 µm	0.2 µm/0.4 µm (and other pore sizes)
Application examples	*Enterococcus*, *E. coli*, *Clostridia*, Fecal coliforms, *Staphyloccus*, *Pseudomonas aeruginosa*, etc		*Legionella*	*Legionella*

Filtration considerations

Microorganisms in a water sample are collected using a microfiltration membrane filter. The membrane can then be transferred onto a microbiological culture medium for further identification and/or quantification of microorganisms.

Membrane filtration methods are commonly used for the detection of microorganisms such as *E. coli*, *Clostridia*, fecal coliforms, *Legionella*, *Staphylococci*, and *Pseudomonas aeruginosa*. These methods involve the use of membrane filters and filtration manifolds.

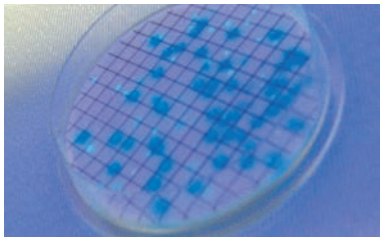

Fig 6. Gridded membrane on agar plate containing bacterial colonies.

What are you testing for?	Product	Characteristics and benefits
Bacterial count and/or detection	**Membranes**	• Both sterile and nonsterile options • Range of pore sizes available • ME and MicroPlus membranes are sterile and individually packed. They contain a folded strip of filters for use with our membrane dispenser
	Accessories: Membrane-Butler membrane dispenser (manual version); Fig 7	With each turn a membrane filter is ejected and can be removed easily with a pair of tweezers. • Cross-contamination risks are minimized • Membrane is dispensed rapidly
	Other microbiological control accessories: funnel dispenser, funnels, tweezers, autoclaving bags	• Waste reduction, because PP funnels can be autoclaved up to 20 times • Time saving; no need to flame in between filtrations • Easy handing • Reduce cross-contamination • Reproducible results • Low background contamination

Ordering information

Membrane filters

Diameter					25 mm	47 mm	50 mm	
Membrane material/type	**Pore size**	**Color**	**Sterile**	**Membrane-Butler compatible**	**Cat. No.**	**Cat. No.**	**Cat. No.**	**Quantity**
Cellulose mixed ester/ ME type	0.2 µm	white	yes	no	-	**89233-756**	**89233-758**	100/pack
	0.2 µm	white	yes	yes	-	**89233-760**	**89233-762**	400/pack
	0.45 µm	white	yes	no	-	**11008-580**	**10034-968**	100/pack
	0.45 µm	white	yes	yes	-	**13500-170**	**28151-150**	400/pack
	0.45 µm	black/white grid	yes	yes	-	**10035-800**	-	100/pack
	0.45 µm	black/white grid	yes	yes	-	**13500-162**	-	400/pack
Cellulose nitrate/ Microplus	0.45 µm	white	yes	no	-	**89233-750**	**89233-752**	100/pack
	0.45 µm	white	yes	yes	-	**74330-508**	**74330-510**	400/pack
	0.45 µm	black	yes	no	-	-	**89233-754**	100/pack
	0.45 µm	black	yes	yes	-	-	-	400/pack
Polycarbonate/ Nuclepore	0.2 µm	white	no	no	-	**28157-927**	**10035-584**	100/pack
	0.4 µm	white	no	no	-	**28157-960**	**10035-586**	100/pack
	0.8 µm	black	no	no	-	-	-	100/pack
Nylon (Polyamide)/NL	0.4 µm	white	no	no	-	**28152-899**	**10035-004**	100/pack

Accessories for microbiological control

Product	Description	Quantity/pack	Cat. No.
AS 200	2-place vacuum manifold	1	**74330-496**
Funnel dispenser	Automatic dispenser for funnels	1	**74330-498**
Funnels 100 ml	PP (autoclavable)	20	**74330-500**
Funnels 350 ml	PP (autoclavable)	20	**74330-504**
Autoclaving bags	Autoclaving bags for MBS I funnels	20	**89233-746**
Membrane-Butler	Manual dispenser for membranes	1	**28151-134**

Fig 7. Membrane-Butler

Chemical compatibility of membranes and housings*

Selecting the right filter depends on the solvent that you are using for your application. This table will help ensure that you get it right the first time.

Solvent	ANP	CA	CN	PC	PE	GMF	NYL	PP	DpPP	PES	PTFE‡	PVDF	RC
Acetic acid, 5%	R	LR	R	R		R	R	R	R	R	R	R	R
Acetic acid, glacial	R	NR	NR			R	LR	R	R	R	R	R	NR
Acetone	R	NR	NR	NR	R	R	R	R	R	NR	R	NR	R
Acetonitrile	R	NR	NR			R	R	R	R	NR	R	R	R
Ammonia, 6 N	NR		NR	NR	LR	LR	R	R	R	R	R	LR	LR
Amyl acetate	LR	NR	NR	NR	R	R	R	R	R	LR	R	LR	R
Amyl alcohol	R	LR	LR			R	R	R	R	NR	R	R	R
Benzene†	R	R	R	NR	R	R	LR	NR	NR	R	R	R	R
Benzyl alcohol†	R	LR	LR	LR	R	R	LR	R	R	NR	R	R	R
Boric acid	R	R	R	R	R	R	LR	R	R		R	R	R
Butyl alcohol	R	R	R	R	R	R	R	R	R	R	R	R	R
Butyl chloride†						R	NR	NR	NR		R	R	
Carbon tetrachloride†	R	NR	R	LR	R	R	LR	NR	NR	NR	R	R	R
Chloroform†	R	NR	R	NR	R	R	NR	LR	LR	NR	R	R	R
Chlorobenzene†	R		LR	NR		R	NR	LR		NR	R	R	R
Citric acid						R	LR	R		R	R	R	R
Cresol		NR	R			R	NR	NR	NR	NR	R	NR	R
Cyclohexane	R	NR	NR	R	R	R	NR	NR	NR	NR	R	R	R
Cyclohexanone	R	NR	NR			R	NR	R	R	NR	R	R	R
Diethylacetamide		NR	NR			R	R	R	R		R	NR	R
Dimethylformamide	LR	NR	NR			R	R	R	R	NR	R	NR	LR
Dioxane	R	NR	NR	NR	R	R	R	R	R	LR	R	LR	R
DMSO	LR	NR	NR	NR	R	R	R	R	R	NR	R	LR	LR
Ethanol	R	R	NR	R	R	R	R	R	R	R	R	R	R
Ethers	R	LR	LR	R	R	R	R	NR	NR	R	R	LR	R
Ethyl acetate	R	NR	NR	NR	R	R	R	R	R	NR	R	NR	R
Ethylene glycol	R	LR	LR	R	R	R	R	R	R	R	R	R	R
Formaldehyde	LR	LR	R	R	R	R	R	LR	LR	R	R	R	LR
Freon TF	R	R	R	R	R	R	NR	NR	NR	R	R	R	
Formic acid		LR	LR			R	NR	R	R	R	R	R	LR
Hexane	R	R	R	R	R	R	R	R	R	R	R	R	R
Hydrochloric acid, conc.	NR	NR	NR	NR	NR	R	NR	LR	LR	R	R	R	NR
Hydrofluoric acid		NR	NR			NR	NR	LR	LR		R	R	NR

Solvent	ANP	CA	CN	PC	PE	GMF	NYL	PP	DpPP	PES	PTFE‡	PVDF	RC
Isobutyl alcohol	R	LR	LR	R	R	R	R	R	R		R	R	R
Isopropyl alcohol	R	R	LR			R	R	R	R		R	R	R
Methanol	R	R	NR	R	R	R	R	R	R	R	R	R	R
Methyl ethyl ketone	R	LR	NR	NR	R	R	R	R	R	NR	R	NR	R
Methylene chloride†	R	NR	LR			R	NR	LR	LR	NR	R	R	R
Nitric acid, conc.		NR	NR	LR	NR	R	NR	NR	NR	NR	R	R	NR
Nitric acid, 6 N		LR	LR			R	NR	LR	LR	LR	R	R	LR
Nitrobenzene†	LR	NR	NR	NR	R	R	LR	R	R	NR	R	R	R
Pentane	R	R	R	R	R	R	R	NR	NR	R	R	R	R
Perchloroethylene	R	R	R			R	LR	NR	NR	NR	R	R	R
Phenol 0.5%	LR	LR	R			R	NR	R	R	NR	R	R	R
Pyridine	R	NR	NR	NR	R	R	LR	R	R	NR	R	NR	R
Sodium hydroxide, 6N	NR	NR	NR	NR	NR	NR	LR	R	R	R	R	NR	NR
Sulfuric acid, conc.	NR	NR	NR	NR	NR	R	NR	NR	NR	NR	R	NR	NR
Tetrahydrofuran	R	NR	NR			R	R	LR	LR	NR	R	R	R
Toluene†	R	LR	R	NR	R	R	LR	LR	LR	NR	R	R	R
Trichloroethane†	R	NR	LR	NR	R	R	LR	LR	LR	NR	R	R	R
Trichloroethylene†	R		R			R	NR	LR	LR	NR	R	R	R
Water	R	R	R	R	R	R	R	R	R	R	R	R	R
Xylene†	R	R	R			R	LR	LR	LR	LR	R	R	R
Xylene†	R	R	R			R	LR	LR	LR	LR	R	R	R

* ANP = Anopore; CA = Cellulose acetate; CN = Cellulose nitrate; DpPP = Polypropylene depth filter; GMF = Glass microfiber; NYL = Nylon; PC = Polycarbonate; PE = Polyester; PES = Polyethersulfone; PP = Polypropylene; PTFE = Polytetrafluoroethylene; PVDF = Polyvinylidene difluoride; RC = Regenerated cellulose R = Resistant; LR = Limited Resistance; NR = Not Recommended.

† Short Term Resistance of Housing.

‡ Membrane may need pre-wetting with isopropanol/methanol if filtering a polar liquid.

The above data is to be used as a guide only. Testing prior to application is recommended.

Visit vwr.com for additional information on GE Healthcare Life Sciences products

Distributor
GE Healthcare

VWR® We Enable Science

1.800.932.5000
vwr.com

0716 Lit No. 071654W