

ENVIRONMENTAL AIR MONITORING PRODUCT GUIDE

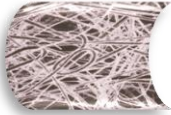
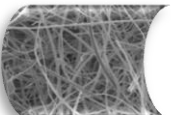
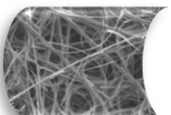
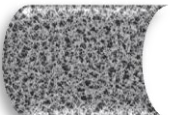
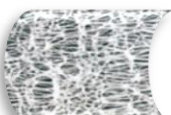
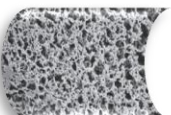
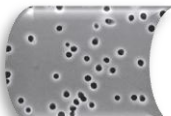
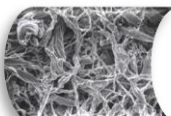



Air quality is becoming an ever-increasing global concern. As industry continues to develop, our society is faced with growing health issues from exposure to pollution and airborne particles. Small particles are of special concern because they are respirable and when inhaled, penetrate deep into the lungs causing acute or chronic health effects. Thankfully, governments worldwide have set standards for pollution control but regulating pollution levels requires constant monitoring.

ADVANTEC has been a leading manufacturer of filtration products since 1917. We offer a wide selection of products designed specifically for environmental monitoring and air sampling that comply with requirements set forth by regulatory agencies worldwide. Test methods may reference a brand-name product but this is only a suggestion based on tested samples at the time of publication and does not exclude the use of a comparable product. ADVANTEC MFS's commitment has and continues to be, to supply you with the highest quality products on the market.

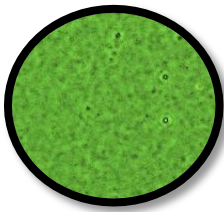
TEST METHOD	APPLICATION	ADVANTEC FILTER	OTHER PRODUCTS
US EPA 5	Particulate Matter Emissions, Out-of- Stack	Glass Fiber Filter or Thimble Filter	LS47, KS47, PFA47, Petri-dishes
US EPA 17	In-Stack Gas Emissions	Glass Fiber Filter or Thimble Filter	KS25, KS47, LS47, Petri-dishes
US EPA 201a	PM 10	Glass or Quartz Fiber Filter	KS47(316ss), Petri-dishes
US EPA 202	Condensable Particulate Emissions	PTFE Membrane code J	KS47(316ss), PFA47
US EPA 26A	Hydrogen Halide Emissions	PTFE Coated Glass Fiber, Quartz Fiber Filter	PFA47
US EPA 29	Metals Emissions	Quartz Fiber Filter	KS47, PFA47
NIOSH 7400/7402	Asbestos & Fibers	MCE Membrane 0.80/0.45µm <i>Opticlear</i> recommended	37mm Monitors, 37mm Pads, Petri-dishes
NIOSH 7401/5005	Dusts	PTFE Membrane code J 1.0µm	37mm Monitors, 37mm Pads
NIOSH 7300/7301	Elements, lead	MCE Membrane 0.80µm	37mm Monitors, 37mm Pads
NIOSH 7601	Silica, crystalline	MCE Membrane 0.80µm	37mm Monitors, 37mm Pads

Filter Selection for Air Sampling Applications

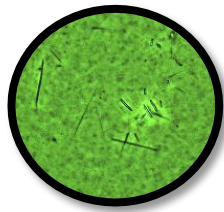
Filter Media	Description	Filter Grade/Code	Particle Retention (µm) *nominal	Aerosol Retention (0.30µm DOP)	Applications
 Glass Fiber	100% borosilicate binder-free glass fiber. Chemically resistant, low trace metals. Max. temp. 500°C	GB100R	*0.60	99.99%	High-volume air sampling for collecting particles and aerosols
		GC50	*0.50	99.99%	
 Quartz Fiber (Silica)	100% silica fiber without binder. Very low trace metals content. Prefired to reduce organic contaminants. Max. temp. 1000°C	QR100	N/A	99.99%	Sampling in harsh environments or high temperatures. Stack sampling and PM-10 testing
 PTFE Coated Glass Fiber	Borosilicate glass microfiber reinforced with PTFE. Resistant to acid gases and unaffected by humidity. Max. temp. 260°C	PG60	N/A	99.95%	Ambient air sampling, exhaust and stack gas emissions testing
 MCE Membrane	Mixed Cellulose Esters membrane clears and digests completely	A	0.45	N/A	Sampling of airborne particulates such as metals, lead, silica, asbestos fibers, and dust
	<i>Opticlear</i> MCE offers superior filter clarity for particle identification	<i>Opticlear</i>	0.80		
 PTFE Membrane	PTFE membranes are chemically resistant and have low background	J	0.50	99.99%	Air sampling in aggressive environments, polynuclear aromatic hydrocarbons, acid rain, and particles
	PTFE with polypropylene support		1.0		
	PTFE unsupported		T		
 Nylon Membrane	Nylon membrane has low extractables and offers good chemical resistance.	N	0.45	N/A	General particulate filtration and analysis
 PCTE Membrane	Polycarbonate track etched film traps particles on the surface. Optically translucent for viewing particles under a microscope	K	0.80	N/A	Particulate analysis and identification
			5.0		
 PTFE Depth Filter	Pure fibrotic hydrophobic PTFE offers superior handling compared to glass or quartz filters. No absorption of acid gases. Max. temp. 260°C	PF-020	*2.0	99.90%	Particulate analysis when it is critical that filter media be non-absorptive of acid gases or free of trace metal contamination
		PF-040	*4.0	95.00%	
 Glass Quartz (Silica) PTFE PTFE/Quartz	Thimble filters are seamless and made of high purity materials. No.88RH is prefired. No.89 Max temp. 260°C. No.89S Max temp. 400°C	No.86R	*1.0	99.95%	Used in stack samplers for analysis of dust, pollutants and additives in plastics and rubber materials
		No.88R/88RH	*3.0	99.95%	
		No.89	*3.0	99.95%	
		No.89S	N/A	99.95%	

Specialty Products and Accesories

Opticlear MCE Membranes



Opticlear MCE



Standard MCE

Advantec developed the *Opticlear* MCE membrane for airborne asbestos monitoring. Once cleared, the composition of standard MCE can contribute to incorrect identification of asbestos fibers. *Opticlear* MCE offers superior optical clarity to view collected particles. Cutting and packaging are performed under cleanroom conditions to minimize contamination. Available in 0.80µm plain or gridded surface.

37mm Air Monitors

Advantec 37mm Monitors are designed for industrial hygiene applications including sampling of airborne particulates, asbestos, and metals. Use for closed- or open-face sampling. Available as preassembled 2- or 3-piece device with standard 0.45 or 0.80µm MCE filter and support pad or as empty monitors for use with *Opticlear* MCE or alternate 37mm filter. Also available with gridded white or black MCE filters.



Petri-dishes

Made of polystyrene material. Use for transporting or storing filter. Frosted area on lid for identification of sample. Dimensions: 50x11mm. Sterile



Syringe Filter Holders

Convenient for filtering small sample volumes. The 25mm Polypropylene unit comes with silicone o-rings. The type 304 stainless steel holders are available in 13 or 25mm and include a PTFE o-ring and gasket. End-connections are luer-lock, luer-slip fittings.



In-line Filter Holders

Advantec In-line holders are available in a variety of materials.

LS25 and LS47 units are type 304ss. A nickel-plated brass locking ring enables filter change-out without removing holder lines. LS25 has three PTFE gaskets, LS47 has a Si o-ring and PTFE gaskets. Both units have dual support screens and 1/4"NPT to 3/8" hose barb adapters.



The 47mm vented KS47 is available in type 304 or 316ss. Filter supports are PTFE coated to minimize sample contamination. Includes two 1/4"NPTF to 3/8" hose barb adapters and standard Si o-ring. An additional upstream support screen is recommended.



The PP47 Polypropylene In-line holder's body has ridges for quick hand-tightening. Inlet is 1/4"NPTM, outlet is a combination 1/4"NPTM/male luer-slip. One hose barb outlet adapter for 1/4" tubing is provided. Comes standard with Si o-rings.



PFA47 is made of durable Polyfluoroalkoxy. End-connections are combination 1/4" NPTM and 1/4" tubing adapter. Standard o-rings are perfluoroelastomer.



Open-face Polypropylene Holder

Used for environmental air sampling. A PTFE o-ring holds the filter in place. Outlet connection is combination 1/4"NPTM/ male luer-slip. Includes hose barb adapter for 1/4" tubing.



Filterceps

Forceps are polished 304 stainless steel with smooth beveled tips for handling membranes. Length: 4.5 in.



Ordering Information

Glass Fiber Filters

Grade	Diameter	Qty	Catalog #
GB100R	13 mm	100	GB100R13MM
	25 mm	100	GB100R25MM
	37 mm	100	GB100R37MM
	47 mm	100	GB100R47MM
	8x10 in	50	GB100R8X10IN
GC50	13 mm	100	GC5013MM
	25 mm	100	GC5025MM
	37 mm	100	GC5037MM
	47 mm	100	GC5047MM
	8x10 in	100	GC508X10IN

Quartz Fiber Filter

Grade	Diameter	Qty	Catalog #
QR100	13 mm	100	GB100R13MM
	25 mm	100	GB100R25MM
	37 mm	100	GB100R37MM
	47 mm	100	GB100R47MM
	8x10 in	50	GB100R8X10IN

PTFE Coated Glass Fiber Filters

Grade	Diameter	Qty	Catalog #
PG60	25 mm	100	PG6025MM
	37 mm	100	PG6037MM
	47 mm	100	PG6047MM
	8x10 in	50	PG608X10IN

PTFE Membranes

Pore (µm)	Diameter	Qty	Catalog #
<i>code T - unsupported</i>			
3.0	25 mm	100	T300A025A
	37mm	100	T300A037A
	47 mm	100	T300A047A
<i>code J - supported</i>			
0.50	13 mm	100	J050A013A
	25 mm	100	J050A025A
	37 mm	100	J050A037A
	47 mm	100	J050A047A
1.0	13 mm	100	J100A013A
	25 mm	100	J100A025A
	37 mm	100	J100A037A
	47 mm	100	J100A047A

MCE Membranes - code A

Pore (µm)	Diameter	Qty	Catalog #
0.45	13 mm	100	A045A013A
	25 mm	100	A045A025A
	37 mm	100	A045A037A
	47 mm	100	A045A047A
0.80	13 mm	100	A045A013A
	25 mm	100	A045A025A
	37 mm	100	A045A037A
	47 mm	100	A045A047A
<i>Opticlear</i>			
0.80	25 mm	100	A080X025A
	37 mm	100	A080X037A

Nylon Membranes - code N

Pore (µm)	Diameter	Qty	Catalog #
0.45	13 mm	100	N045A013A
	25 mm	100	N045A025A
	47 mm	100	N045A047A
1.2	13 mm	100	N120A013A
	25 mm	100	N120A025A
	47 mm	100	N120A047A

PTFE Depth Filters

Grade	Diameter	Qty	Catalog #
PF-020	25 mm	10	PF02025MM
	37 mm	10	PF02037MM
	47 mm	10	PF02047MM
	8x10 in	5	PF0208X10IN
PF-040	25 mm	10	PF04025MM
	37 mm	10	PF04037MM
	47 mm	10	PF04047MM
	8x10 in	5	PF0408X10IN

PCTE Membranes - code K

Pore (µm)	Diameter	Qty	Catalog #
0.80	13 mm	100	K080A013A
	25 mm	100	K080A025A
	37 mm	100	K080A037A
	47 mm	100	K080A047A
5.0	13 mm	100	K500A013A
	25 mm	100	K500A025A
	37 mm	100	K500A037A
	47 mm	100	K500A047A

Ordering Information (continued)

Thimble Filters

Grade	Size	Qty	Catalog #
No.86R	19x90 mm	25	N086R19X90MM
	25x90 mm	25	N086R25X90MM
	30x100 mm	25	N086R30X100MM
	33x80 mm	25	N086R33X80MM
No.88R	30x80 mm	25	N088R30X80MM
	30x100 mm	25	N088R30X80MM
No.88RH	25x90 mm	10	N088RH25X90MM
No.89	25x90 mm	10	N08925X90MM
No.89S	25x90 mm	10	N089S25X90MM

37mm Monitors

Description	Qty	Catalog #
Pre-assembled		
0.45µm, 3-piece	50	37AS345AN
0.80µm, 3-piece	50	37AS380AN
Empty monitors w/ plugs		
2-piece	50	37OS2000N
3-piece	50	37OS3000N

In-line Filter Holders

Model #	Diameter	Qty	Catalog #
304 Stainless Steel			
LS25	25 mm	1	304500
LS47	47 mm	1	304700
KS47	47 mm	1	357400
* FPM O-ring, KS47		1	304714
316 Stainless Steel			
KS47	47 mm	1	357500
* FPM O-ring, KS47		1	304714
* Support screen, KS47		1	304815
Polypropylene			
PP47	47 mm	1	501200
* FPM O-ring, PP47		1	530108
PFA			
PFA47	47 mm	1	530100

Open-face Polypropylene Holder

Model #	Diameter	Qty	Catalog #
PPO47	47 mm	1	501300

Filterceps

Description	Qty	Catalog #
304ss	1	17800000

Syringe Filter Holders

Model #	Diameter	Qty	Catalog #
304 Stainless Steel			
KS13	13 mm	1	301000
KS25	25 mm	1	301200
Polypropylene			
PP25	25 mm	6	540100
* FPM O-ring, PP25		12	540107
PFA			
PFA25	25 mm	1	530200

Support Pads

Description	Diameter	Qty	Catalog #
Non-sterile	25 mm	100	M-08525MM
Non-sterile	37 mm	100	M-08537MM
Non-sterile	47 mm	100	M-08547MM

Petri-dishes

Description	Qty	Catalog #
50 x 11 mm	100	800100
50 x 11 mm	500	800500

* Optional replacement part. Additional order required.

Other pore sizes, diameters, and materials may be available. Please call to speak with our Technical Service Department.

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