

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.

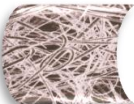
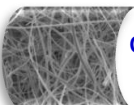
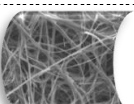
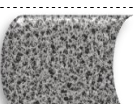
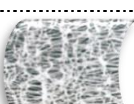
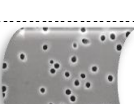
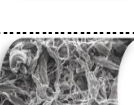

ADVANTEC® has been a leading manufacturer of filtration products since 1917. We offer a wide selection of products designed specifically for environmental monitoring and air sampling that comply with requirements set forth by regulatory agencies worldwide. Test methods may reference a brand-name product 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®'s commitment has and continues to be, to supply you with the highest quality products on the market.

Recommendable Products:

TEST METHOD	APPLICATIONS	ADVANTEC FILTERS	RELATED PRODUCTS
US EPA 5	Particulate Matter Emissions, Out-of- Stack	Glass Fiber Filters or Thimble Filters	LS-47, KS-47, PFA-47, Petri-dishes
US EPA 17	In-Stack Gas Emissions	Glass Fiber Filters or Thimble Filters	KS-25, KS-47, LS-47, Petri-dishes
US EPA 201a	PM 10	Glass or Quartz Fiber Filters	KS-47(316ss), Petri-dishes
US EPA 202	Condensable Particulate Emissions	PTFE Membranes code J	KS-47(316ss), PFA-47
US EPA 26A	Hydrogen Halide Emissions	PTFE Coated Glass Fiber, Quartz Fiber Filters	PFA-47
US EPA 29	Metals Emissions	Quartz Fiber Filters	KS-47, PFA-47
NIOSH 7400/7402	Asbestos & Fibers	MCE Membranes 0.80/0.45µm <i>Opticlear</i> recommended	37mm Monitors, 37mm Pads, Petri-dishes
NIOSH 7401/5005	Dusts	PTFE Membranes code J 1.0µm	37mm Monitors, 37mm Pads
NIOSH 7300/7301	Elements, lead	MCE Membranes 0.80µm	37mm Monitors, 37mm Pads
NIOSH 7601	Silica, crystalline	MCE Membranes 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	GB-100R	*0.60	99.99%	High-volume air sampling for collecting particles and aerosols	
		GC-50	*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	QR-100	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 is resistant to acid gases and unaffected by humidity. Max. temp. 260°C	PG-60	N/A	99.95%	Ambient air sampling, exhaust and stack gas emissions testing	
 MCE Membrane	Mixed Cellulose Esters membrane clears and digests completely <i>Opticlear</i> MCE offers superior filter clarity for particle identification	A	0.45 0.80	N/A	Sampling of airborne particulates such as metals, lead, silica, asbestos fibers, and dust	
		<i>Opticlear</i>	0.80			
 PTFE Membrane	PTFE membrane are chemically resistant and have low background	PTFE with polypropylene support	J	0.50 1.0	99.99%	Air sampling in aggressive environments, polynuclear aromatic hydrocarbons, acid rain, and particles
		PTFE unsupported	T	3.0		
 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	
 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%		

For more detailed product specifications, please see our online catalog at [://www.advantec.co.jp/en/service_support/download/general_catalog/](http://www.advantec.co.jp/en/service_support/download/general_catalog/)

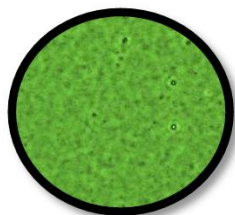
Air pollution

Asbestos

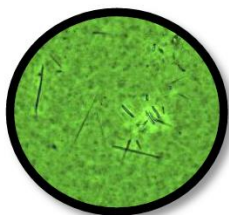


SPECIALTY PRODUCTS AND ACCESSORIES

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: 48x54x11mm. Sterile



PD-47A, PD-47B

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.



KS-13

KS-25

In-line Filter Holders

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

LS-25 and LS-47 units are type 304ss.

A nickel-plated brass locking ring enables filter change-out without removing holder lines. LS-25 has three PTFE gaskets, LS-47 has a Silicone O-ring and PTFE gaskets. Both units have dual support screens and 1/4NPT(F) to 1/4NPT(M) hose barb adapters.



LS-25

LS-47

The 47mm vented KS-47 is available in type 304 or 316ss. Filter supports are PTFE coated to minimize sample contamination. Includes 1/4PS to 9.5mm hose barb adapters and standard Silicone O-ring. An additional upstream support screen is recommended.



KS-47

The PP-47 Polypropylene In-line holder's body has ridges for quick hand-tightening. Inlet is 1/4NPT(M), outlet is a combination 1/4NPT(M)/male luer-slip. One hose barb outlet adapter for 1/4 tubing is provided. Comes standard with Silicone O-rings.



PP-47

PFA-47 is made of durable Polyfluoroalkoxy. End-connections are combination 1/4NPT(M) and 1/4 tubing adapter. Standard O-rings are perfluoroelastomer.



PFA-47

Open-face Polypropylene Holder

Used for environmental air sampling. A PTFE O-ring holds the filter in place. Outlet connection is combination 1/4NPT(M) male luer-slip. Includes hose barb adapter.



PPO-47

Filterceps

Forceps are polished 304 stainless steel with smooth beveled tips for handling membranes. Length: 115mm.



FS-1

ORDERING INFORMATION

Glass Fiber Filters

Grade	Diameter	Qty	Catalog #
GB-100R	13 mm	100	A3632005
	25 mm	100	36321025
	37 mm	100	36321037
	47 mm	100	36321047
	8x10 in	50	36323203
GC-50	13 mm	100	A3638006
	25 mm	100	36381025
	37 mm	100	36381037
	47 mm	100	36381047
	8x10 in	100	A3638GC005

Quartz Fiber Filters

Grade	Diameter	Qty	Catalog #
QR-100	13 mm	100	36701013
	25 mm	100	A36701025
	37 mm	100	36701037
	47 mm	100	36701047
	8x10 in	50	36703204

PTFE Coated Glass Fibers

Grade	Diameter	Qty	Catalog #
PG-60	25 mm	100	36661025
	37 mm	100	36661037
	47 mm	100	36661047
	8x10 in	50	36663203

PTFE Depth Filters

Grade	Diameter	Qty	Catalog #
PF-020	25 mm	10	38201025
	37 mm	10	38201037
	47 mm	10	38201047
	8x10 in	5	38203203
PF-040	25 mm	10	38401025
	37 mm	10	38401037
	47 mm	10	38401047
	8x10 in	5	38403203

MCE Membranes

Pore (µm)	Diameter	Qty	Item
<i>code A</i>			
0.45	13 mm	100	A045A013A
	25 mm	100	A045A025A
	37 mm	100	A045A037A
	47 mm	100	A045A047A
0.80	13 mm	100	A080A013A
	25 mm	100	A080A025A
	37 mm	100	A080A037A
	47 mm	100	A080A047A
<i>Opticlear</i>			
0.80	25 mm	100	A080X025A
	37 mm	100	A080X037A

PTFE Membranes

Pore (µm)	Diameter	Qty	Item
<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

PCTE Membranes - code K

Pore (µm)	Diameter	Qty	Catalog #
0.80	13 mm	100	K080A013A
	25 mm	100	K080A025A
	47 mm	100	K080A047A

ORDERING INFORMATION (CONTINUED)

Thimble Filters

Grade	Size	Qty	Catalog #
No.86R	19x23x90mm	25	3562K190
	25x30x100mm	25	3562K250
	30x34x100mm	25	3562K301
	33x39x80mm	25	A3562M3380
No.88R	30x34x80mm	25	3581K300
	30x34x100mm	25	3581K301
No.88RH	22x25x90mm	10	35820251
No.89	22x25x90mm	10	35900250
No.89S	22x25x90mm	10	35910250

Syringe Filter Holders

Model#	Diameter	Qty	Catalog #
304 Stainless Steel			
KS-13	13mm	1	17301000
KS-25	25mm	1	17301200
Polypropylene			
PP-25	25mm	6	43303010
* FPM O-ring, PP-25		12	44540107
PFA			
PFA-25	25mm	1	43307010

In-line Filter Holders

Model#	Diameter	Qty	Catalog #
304 Stainless Steel			
LS-25	25mm	1	17304500
LS-47	47mm	1	17304700
KS-47	47mm	1	17307400
Polypropylene			
PP-47	47mm	1	43303020
* FPM O-ring, PP-47		1	44501206
PFA			
PFA-47	47mm	1	43307020

Open-face Polypropylene Holder

Model#	Diameter	Qty	Catalog #
PPO-47	47mm	1	43305010

37mm Monitors

Description	Qty	Item
Pre-assembled		
0.45µm, 3-piece	50	37AS345AN
0.80µm, 3-piece	50	37AS380AN
Empty monitors w/plugs		
2-piece	50	370S200ON
3-piece	50	370S300ON

Support Pads, Non-sterile

Description	Diameter	Qty	Catalog #
M-085	25mm	100	A0251005
	37mm	100	02511037
	47mm	100	02511047

Petri-dishes

Description	Size	Qty	Item
With Pad	OD54x11mm	100	PD-47B
Without Pad	OD54x11mm	100	PD-47A

Filterceps

Item	Qty	Catalog #
FS-1	1	17800000

* Optional replacement part. Additional order required.

* Other pore sizes, diameters, and materials may be available. Please contact us for further information.

Contact:

ADVANTEC®

ADVANTEC TOYO KAISHA, LTD.

Hibiya-Kokusai BLDG, 2-2-3, Uchisaiwaicho,
Chiyoda-ku, Tokyo, 100-0011 Japan

Phone +81-3-5521-2181

Facsimile +81-3-5521-2182

Email atk-otd@ADVANTEC.co.jp

Website www.ADVANTEC.co.jp/en/