

GVS Filter Technology is a fully integrated producer and supplier of membrane based solutions for the environmental monitoring community.

Poor Air and Water Quality around the world is a severe health risk for the population. Particulates impact the quality of the air we breathe, the water we drink and the space we live in everyday.

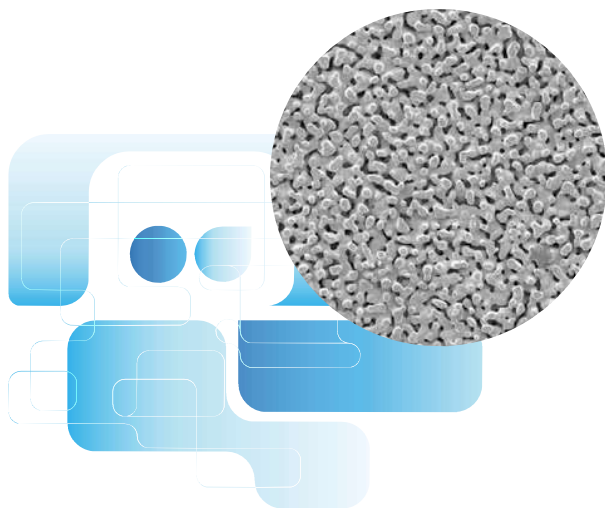
Standards and regulations for air and water particulate monitoring have been established by global environmental agencies to define, measure and mitigate issues. Regulations provide established methods for the analysis and definition of air and water quality. Global Standards have been established to define best practices for environmental monitoring using the most accurate procedures and test methods.

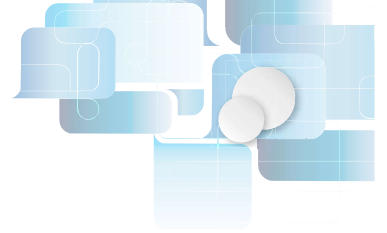
GVS supports the need for environmental monitoring and controls and offers a comprehensive suite of products developed for the air and water monitoring market. These include membranes and filters for air particulate monitoring, water quality, chemical, soil and asbestos analysis. GVS products are designed to be used in environmental testing and meet the Global Regulation Standards for air and water quality monitoring and analysis. All GVS membranes and filters are manufactured in ISO certified facilities to ensure reliable performance each and every time.



GVS products for environmental testing include applications and testing for:

- ◆ Environmental air monitoring
- ◆ Air pollution monitoring from stacks, flues and aerosols
- ◆ Industrial and home air monitoring
- ◆ Solutions for particulate matter testing
- ◆ Chemical analysis
- ◆ Asbestos analysis
- ◆ Oil monitoring
- ◆ Water testing
- ◆ Heavy metal testing
- ◆ Smoke number measurement
- ◆ Emission testing
- ◆ Gas monitoring
- ◆ Exhaust gas control
- ◆ Gravimetric analysis
- ◆ Preparation for qualitative analysis





P.M. 2.5 PTFE Membrane



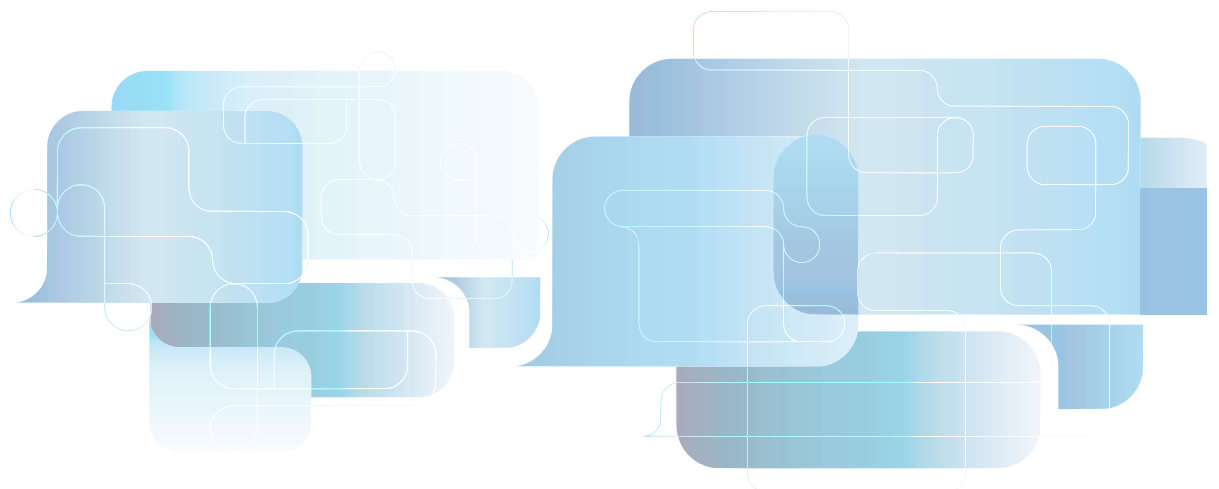
GVS PM 2.5 PTFE Membrane is a high-purity, thin membrane for PM 2.5 ambient air monitoring. Each membrane is sequentially numbered with a chemically resistant polypropylene support ring. The low tare mass allows for accurate gravimetric determinations. No glues or adhesives are used in making the membranes and its stable design eliminates curling, keeping the membrane flat allowing for robot use.

Product Characteristics

Filter thickness	30-50 μm
Filter diameter	46.2 mm
Filter pore size	2.0 μm
Support ring material	Polypropylene
Total support ring thickness	0.38 mm
Support ring width	3.68 mm
Particle retention (0.3 μm)	99.7 %
Pressure drop (0.3 μm) @16.67 l/min clean air	30 cm water
Alkalinity	<25 $\mu\text{eq/g}$ of filter
Temperature weight loss stability	<20 μg
Drop test weight loss stability	<20 μg
Moisture weight gain stability	<10 μg

Ordering information

Description	Pore Size (μm)	Quantity	Product Code
PM 2,5 PTFE Membrane Disk, EPA Conforming	2.0	50 /pk	759310



Silver Membranes



SILVER
Silver
Membrane

GVS silver membranes are constructed with pure metallic silver (99.97%). They combine excellent chemical resistance and high-temperature characteristics with a retention range of 0.2 μm to 5 μm. Silver membranes are used in a large number and variety of applications. Their unique chemical and thermal stability is especially valuable for those applications involving aggressive fluids and/or high temperatures. They are ideal collection media for analysis of crystalline silica by X-ray diffraction and for analysis of organic materials by other instrumentation techniques, such as the analysis of Polycyclic Aromatic Hydrocarbons (PAH) and Total Organic Carbons (TOC).

Features and Benefits

- ◆ High temperature resistance
- ◆ Withstand extreme chemical and thermal stress.
- ◆ Tolerant of chemically aggressive fluids.
- ◆ No dissolution or migration of the filter
- ◆ Smooth surface for particle capture and easy observation

Typical Application

- ◆ X-ray diffraction
- ◆ Scanning electron microscopy (SEM)
- ◆ Removal of air-borne contaminants according to NIOSH industrial hygiene standards
- ◆ Respirable combustible dust (RCD) sampling and analysis
- ◆ High-temperature venting; HPLC sample preparation
- ◆ Clarification, polishing, and sterilization of liquid samples
- ◆ USGS organic carbon, inorganic, and suspended sediment water analysis
- ◆ Soil and clay analysis
- ◆ Chlorine monitoring ERDA fly ash sampling
- ◆ Bacteria sampling

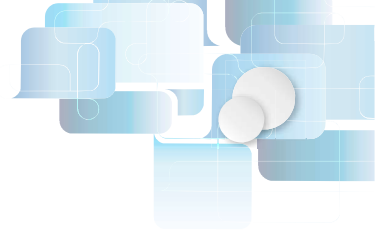
Product Characteristics

Retention Range	0.22 to 5 μm available
Maximum Temperature	400°F (204 °C)
Thickness	50 μm

Silver Membrane

Ordering information

Dimensions Packaging	13 mm 100/pk	25 mm 50/pk	37 mm 25/pk	47 mm 25/pk
0.20 μm	1211664	1145336	1145342	1145348
0.45 μm	1211663	1145335	1145341	1145347
0.8 μm	1145328	1145334	1211673	1145346
1.2 μm		1145333		1145345
3.0 μm	1211660	1145332	1211672	1211677
5.0 μm		1145331	1145337	1145343



Glass Fiber Filters with or w/o Binder



borosilicate glass fibers woven into a porous matrix and bonded by an acrylic resin. This bonding produces a filter that reduces media migration and has the strength required for high-volume aqueous filtrations. Glass Fiber membranes with a binder are usually recommended for filtrations of long duration under pressure. Glass Fiber membranes without binders are designed for solvent filtration or gravimetric analysis to avoid binder extractables. Filters without binders are recommended for analytical and gravimetric determinations.

GVS Glass Fiber membranes are biologically inert, autoclavable and highly resistant to oxidizing agents and weak acids. Glass fiber can be used to extend the life of a final filter as a prefilter or they can be used alone for low cost sample clarification. GVS Glass Fiber membranes with binders are composed of

Characteristics

- ◆ Acrylic binder
- ◆ High dirt holding capacity
- ◆ Biologically inert
- ◆ Bonding reduces media migration

Product Characteristics: Glass Fiber Filters with Binder

Max operating Temperature	165 °C
1.0 µm G20 Grade: 60 gsm	0.30 mm thick
1.0 µm G20 Grade: 203 gsm	1.14 mm thick

Product Characteristics: Glass Fiber Filters Binderless

Max operating Temperature	500 °C
0.7 µm: 60 gsm	0.44 mm thick
1.0 µm: 56 gsm	0.28 mm thick

Glass Fiber Filters with Binder

Ordering information

	Dimensions Packaging	13 mm 100/pk	22 mm 100/pk	25 mm 100/pk	42 mm 100/pk	47mm 100/pk	75 mm 25/pk	90 mm 25/pk
Pore sizes	0.5 µm		1215543	1215544		1215548		1215550
	1.0 µm (G20)	1215557		1215559	1215561	1215562	1215563	1215564
	1.0 µm (G25)	1215571	1215572	1215573		1215577		1215579

	Dimensions Packaging	124 mm 25/pk	127 mm 25/pk	142 mm 25/pk	257 mm 25/pk	293 mm 25/pk	24x24 cm 10/pk
Pore sizes	0.5 µm	1215551		1215553	1215554	1215555	1266844
	1.0 µm (G20)	1215565	1215566	1215567	1215568	1215569	
	1.0 µm (G25)	1215580		1215582	1215583	1215584	1268603

Glass Fiber Filters Binderless

Ordering information

	Dimensions Packaging	7 mm 500/pk	10 mm 500/pk	25 mm 100/pk	37 mm 500/pk	47 mm 100/pk	82 mm 100/pk
Pore sizes	0.7 µm	3029939		1215162		1215540	
	1.0 µm		1214912	1213325*	1215588	1215589*	1214974

	Dimensions Packaging	90 mm 25/pk	102 mm 100/pk	142 mm 25/pk	257 mm 100/pk	293 mm 25/pk
Pore sizes	0.7 µm	1215541		1215542		
	1.0 µm	1225509 1212763**	1214671	3034574	1220678	1220887

*500/pk **100/pk

Quartz Microfiber Filter



GVS Quartz microfiber filters are made with 100% pure quartz microfiber with zero binders. Exhibit greater chemical resistance at high temperatures than glass microfiber. Excellent choice for use in environments with extreme temperature up to 900°C and/or aggressive chemical exposure. Retention loading and air flow permeation similar to glass microfiber filters. Use wherever filters of the highest purity are needed.

Features and Benefits

- ◆ Excellent retention of very fine particles.
- ◆ Exceptional chemical and thermal resistance.
- ◆ Excellent weight and dimensional stability with lowest trace metal content.
- ◆ High Permeation enables large volume of air to pass through.
- ◆ Higher temperature stability than glass microfiber filters; up to 900°C.
- ◆ Excellent chemical stability with practically no filter-mass loss in the presence of acid gases (HCl, SO₂, SO₃, H₂, SO₄, NO and NO₃).

Product Characteristics

Weight	85 g/m ²
Thickness	440 μm
Retention DOP	99.998 %

Ordering information

Product Code	Diameter	Quantity
FP025D0QF1QUFC01	25 mm	100/pk
FP037D0QF1QUFC01	37 mm	100/pk
FP047D0QF1QUFC01	47 mm	100/pk
FP050D0QF1QUFC01	50 mm	100/pk
FP055D0QF1QUFC01	55 mm	100/pk
FP070D0QF1QUFC01	70 mm	100/pk
FP090D0QF1QUFC01	90 mm	100/pk
FP110D0QF1QUFC01	110 mm	100/pk
FP125D0QF1QUFC01	125 mm	100/pk
FP150D0QF1QUFC01	150 mm	100/pk
FP203R0QF1QUFC01	203 x 254 mm	100/pk