

Gas Sampling Bags

Sampling bags are a low-cost, whole-air sampling device for high-level VOCs and permanent gases. Several EPA, NIOSH, and OSHA methods exist for bag sampling for a variety of applications: stationary sources emissions, workplace atmospheres, ambient, indoor air quality, and breath analysis. Choose the film type appropriate for your application. All our bags feature a polypropylene combo valve with hose connection to fit 3/16" ID tubing and syringe port with replaceable septum. A single eyelet provides handling convenience.

Tedlar® Sampling Bags

- Find the bags you need—we offer sizes from 0.5 L to 100 L.
- Unique all-in-one septum and valve fitting make these lightweight and easy to use.
- Polypropylene or stainless steel valve.
- Both valves conveniently connect to 3/16" ID PTFE tubing.
- Continuous sampling temperature up to 225 °F (107 °C); short term (1–2 hours) temperature up to 350 °F (176 °C).



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Description	Size	qty.	Polypropylene Valve cat.#	Stainless Steel Valve cat.#
0.5 L Tedlar Sampling Bag	6" x 6"	10-pk.	22049	22038
1 L Tedlar Sampling Bag	7" x 7"	10-pk.	22050	22039
3 L Tedlar Sampling Bag	9.5" x 10"	10-pk.	22051	22040
5 L Tedlar Sampling Bag	12" x 12.5"	10-pk.	22052	22041
10 L Tedlar Sampling Bag	11.75" x 22"	10-pk.	22053	22042
12 L Tedlar Sampling Bag	13" x 24"	10-pk.	22054	22043
25 L Tedlar Sampling Bag	17.5" x 24"	5-pk.	22055	22044
40 L Tedlar Sampling Bag	24" x 24.25"	5-pk.	22056	22045
80 L Tedlar Sampling Bag	28.25" x 30.5"	5-pk.	22057	22046
100 L Tedlar Sampling Bag	28" x 36"	3-pk.	22058	22047
Description		qty.	cat.#	
PTFE Faced Silicone Replacement Septum, 4 mm diameter		10-pk.	22104	

Multi-Layer Foil Gas Sampling Bags

- Good stability for low molecular weight compounds, such as methane, CO, CO₂, and permanent gases.
- Chemically inert with light and moisture protection.
- Not recommended for low ppm VOCs due to background levels.
- Protective 5-layer barrier minimizes gas permeability.
 - 60 gauge nylon (outer layer)
 - Metalized aluminum
 - Polyethylene
 - 0.0003" aluminum foil
 - 0.002" polyethylene (inner layer)
- Continuous sampling temperature up to 190 °F (88 °C) indefinitely; do not exceed 190 °F for any period of time.



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also available

ALTEF gas sampling bags

www.restek.com/air

Volume	Size	qty.	cat.#
1 L	7" x 7"	5-pk.	22950
3 L	10" x 10"	5-pk.	22951
5 L	12" x 12"	5-pk.	22952
10 L	12" x 22"	5-pk.	22953
12 L	13" x 24"	5-pk.	22966
25 L	18" x 24"	5-pk.	22967
40 L	24" x 24.5"	5-pk.	22968
PTFE Faced Silicone Replacement Septum, 4 mm diameter		10-pk.	22104

Vacuum Bag Sampler

- Fast bag sampling without sample passing through pump.
- Bag capacity up to 10 L.

The model 1062 vacuum bag sampler provides fast sampling with zero cross-contamination. A vacuum created in the box draws air into the sampling bag without drawing it through the vacuum pump first, as is the case with standard air sampling pumps, thereby preventing contamination of the sample. This bag sampler can fill a 10 L bag in two minutes with an automatic shut-off switch, which stops the sample bag from overfilling. The filling rate is adjusted with a vent rotometer valve. An external battery-recharging port enables continuous operation with battery charger. In addition, the quick exhaust valve allows for fast removal of the sampling bag. The sampler comes with a universal power adaptor/charger, battery, instruction manual, and 1-year limited warranty.

Specifications:

Sampling Bag:	1 bag up to 10 L size
Running Time:	8 hours
Flow Rate (Fill Rate):	1-5 L/min
Power Requirements:	12 V battery, 4.5 amp
Charge Time:	9 hours
Dimensions:	9" x 14.6" x 21.7"
Weight:	17 lb



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Features:

- Observation window on case lid.
- Sample inlet accepts 1/4" OD tubing.
- Case designed for rugged outdoor use.
- CE certified.

Description	qty.	cat.#
Vacuum Bag Sampler Model 1062 (includes: power adaptor, battery, manual)	ea.	22118
Replacement Battery for Vacuum Bag Sampler Model 1062	ea.	22119
Universal Battery Charger for Vacuum Bag Sampler Model 1062 (115/230 VAC)	ea.	22120

Physical Specifications of Gas Sampling Bags

	Tedlar® bags	ALTEF Bags	Multi-Layer Foil Bags
Composition	polyvinyl fluoride (PVF) polymer resin	Proprietary PVDF film	5-layer
Thickness	0.002"	0.003"	0.005"
Tensile Strength	8,000 psi	6,100 psi	24 lb/inch (CD)
Max. Operating Temp.	204 °C	150 °C	87 °C
Specific Gravity	1.7 g/mL	1.78 g/mL	1.09 g/mL
Oxygen Permeability	50 cc/m ² x day	58 cc/m ² x day	0.0006 cc/m ² /day
Water Vapor Permeability	9-57 g/m ² x day	12-15 g/m ² x day	0.0006 g/100 in ² x day
Carbon Dioxide Permeability	172 cc/m ² x day	172 cc/m ² x day	0.0005 cc/100 in ² x day

General Guidelines for Bag Sampling

Follow these basic considerations for trouble-free air sampling using gas sampling bags.

Before Sampling

- Store unused bags in a clean environment, sealed in an outer bag to prevent adsorption of contaminants.
- Pre-clean bags before use by flushing with high-purity nitrogen.
- For validation, compounds must be stable at >80% for 72 hours.
- Leak rate must not exceed 0.1" Hg/min.

During Sampling

- Be sure the PTFE tubing used for bag connection is clean.
- Use a vacuum box sampler for direct bag filling in order to avoid contamination from a sampling pump.
- Typical flow rate is 3 L/min.
- Do not fill bags more than 80%.

After Sampling

- Bags are intended for a single use due to potential sample adsorption onto the bag film.
- Hold times are typically 48 hours unless validation study demonstrates longer stability.
- Protect samples from direct sunlight and store above 0 °C to prevent condensation.
- Transport in rigid, opaque container to prevent bag puncture; do not ship by air unless samples will be kept in a pressurized area.