

Gas Sampling Bags

Selection Guides

FEP Gas Sampling Bags, 5mil						
Fittings Available	Tensile Strength* (by ASTM D-882)	Permeability		Temp. Limits min.–max.	Sample Compatibility	Advantage
Barbed on/off Septum Port Dual 1/4" SS Fitting 2N1 Combination	2500–3000psig (Note: This is NOT a burst pressure rating for the bag.)	Gas	Permeability**	-240–260°C	Inert and solvent resistant to virtually all chemicals except molten alkali metals, gaseous fluorine, complex halogenated compounds at elevated pressure and temperature	Low permeability to liquids, gases, moisture and organic vapors; suitable for cryogenic use
		CO ₂	1670			
		Hydrogen	2200			
		Nitrogen	320			
		Oxygen	750			
		Acetic Acid	0.41			
		Vapor	Permeability***			
		Acetone	0.95			
		Benzene	0.64			
		CCl ₄	0.31			
		Ethanol	0.69			
Hexane	0.56					
Water	0.45					

Tedlar® PVF, 2mil						
Fittings Available	Tensile Strength* (by ASTM D-882)	Permeability		Temp. Limits min.–max.	Sample Compatibility	Advantage
Barbed on/off Septum Port Dual 1/4" SS Fitting 2N1 Combination	17,000–18,000psig (Note: This is NOT a burst pressure rating for the bag.)	Gas	Permeability**	-234–300°C	Recommended for analysis of non-corrosive gases, TCLP gases, CO, H ₂ S, radon, and mercaptans; “Grab” sampling; preparation of calibration gas standards; gas blending; stack sampling; emission testing	Lowest permeability of all types of bags; economical alternative to PTFE; easily cleaned and reused
		CO ₂	11.1			
		Hydrogen	150			
		Nitrogen	0.25			
		Oxygen	3.2			
		Vapor	Permeability***			
		Acetic Acid	45			
		Acetone	10,000			
		Benzene	90			
		CCl ₄	50			
		Ethyl Acetate	1,000			
Ethanol	35					
Hexane	55					
Water	180					

Cali-5-Bond™ 5.5mil (polyethylene, polyamide, aluminum foil, polyvinyl, chloride polyester)						
Fittings Available	Tensile Strength* (by ASTM D-882)	Permeability		Temp. Limit max.	Sample Compatibility	Advantage
2N1 Combination Barbed on/off Septum Port	—	—		54°C	Designed specifically for collecting air samples; suitable for the storage and transportation of gas samples	Opaque bag protects sample from UV degradation; bags may be purged with nitrogen or pure air and reused

*Tensile strength is the maximum force required to rupture a one-inch wide specimen. **cc/(100in²)(24hrs)(atm/mil). ***gms/(100in²)(24hrs/mil).

Available Fittings

Grace offers a large variety of gas sampling bag fittings. Consider the following when selecting a fitting:

1. How will you collect the sample? What type of connection is available to connect to the bag?
2. How will you need to access the sample once it is collected in the bag?
3. Is your sample compatible with the fitting material?



6644
Nickel-plated Barbed
On-Off Valve



6642
PTFE Septum Port



6738
Dual On-Off/Septum



6645
1/4" SS Swagelok®



6643
2N1 Combination
On-Off/Septum

more info

Need a syringe?

See pages 336–347 for our complete selection of syringes.

Gas Sampling Bags

Tedlar® Gas Sampling Bags

- High tensile strength resists puncture
- Low permeability minimizes sample loss

Tedlar® bags are manufactured from sturdy 2mil PVF film that is inert to a wide range of gases. Low permeability ensures the integrity of your sample and makes Tedlar® bags the ideal choice for off site analysis.



6647

Tedlar® Gas Sampling Bags

Nominal Size	Volume	Barbed On-Off Valve Part No.	Septum Port Part No.	Dual On-Off/Septum Port Part No.	1/4" SS Swagelok® Part No.
6" x 6"	0.6L	41021	41023	41025	41027
6" x 10"	1.2L	41029	41031	41033	41035
6" x 12"	1.5L	41037	41039	41041	41043
9" x 9"	2L	41045	41047	41049	41051
12" x 12"	5L	41053	41055	41057	41059
12" x 19"	10L	41063	41065	41067	41069
18" x 18"	16L	41071	41073	41075	41077
24" X 24"	40L	41079	41081	41083	41085
24" x 30"	56L	41087	41089	41091	41093
24" x 36"	73L	41095	41097	41099	41032
30" x 30"	80L	41034	41036	41038	41042

FEP Gas Sampling Bags

- 5mil thickness for durability
- Manufactured and packaged under GLP conditions

FEP bags have a 5mil film thickness making them suitable for harsh sampling conditions. Bags are chemically resistant to the most severe corrosives. Choose from four different port types.



6646

FEP Gas Sampling Bags

Nominal Size	Volume	Barbed On-Off Valve Part No.	Septum Port Part No.	Dual On-Off/Septum Port Part No.	1/4" SS Swagelok® Part No.
6" x 6"	0.6L	41044	41046	41048	41052
6" x 10"	1.2L	41054	41056	41058	41064
6" x 12"	1.5L	41066	41068	41072	41074
9" x 9"	2L	41076	41078	41082	41084
12" x 12"	5L	41086	41088	41092	41094
12" x 19"	10L	41106	41108	41109	41125
18" x 18"	16L	41127	41129	41131	41133
24" x 24"	40L	41135	41137	41139	41149
24" x 30"	56L	41151	41153	41155	41157
24" x 36"	73L	41126	41128	41132	41134
30" x 30"	80L	41136	41138	41152	41154

Replacement Parts

Replacement Parts for Tedlar® and FEP Bags

Description	Part No.
Replacement Septa for Septa Port, 10/pk	41158
1/4" PTFE No Hole Ferrules for 1/4" SS Fitting, 10/pk	RF-400/0-T

Gas Sampling Bags

Combo Valve Gas Sampling Bags

- On/off valve and septum in one fitting
- Save with convenient multi-packs



6648

Cali-5-Bond™ 5-Layer Gas Sampling Bags

- Non-permeable
- Opaque to UV and visible light
- Inert, flexible, tough, and reusable



1651

Combo valve gas sampling bags give the convenience and ease of a barbed on/off valve and a septum port combined into one fitting. The valve fitting features a 3/16" stem, which is suitable for use with most 1/4" tubing, and a sampling port. Bags are available in Tedlar® and FEP as well as convenient multi-packs.

Combo Valve Gas Sampling Bags

Size	Volume	Port Description	Part No.
<i>Tedlar® Gas Sampling Bags</i>			
7 x 7"	1L	2N1	41001
9 x 9"	2L	2N1	41003
12 x 12"	5L	2N1	41007
12 x 19"	10L	2N1	41011
18 x 24"	25L	2N1	41017
<i>FEP Gas Sampling Bags</i>			
6 x 6"	0.6L	2N1	41002
6 x 10"	1.2L	2N1	41004
6 x 12"	1.5L	2N1	41006
9 x 9"	2L	2N1	41008

Tedlar® Combo Valve Multi-Packs

Size	Volume	Port Description	Qty.	Part No.
7 x 7"	1L	2N1	10	48001
9 x 9"	2L	2N1	10	48003
12 x 12"	5L	2N1	10	48007
12 x 19"	10L	2N1	10	48011
18 x 24"	25L	2N1	5	48017

Cali-5-bond™ gas sampling bags are constructed from inert 5.5mil thick material made from five layers of film. The layers are comprised of an inner layer of high-density polyethylene, followed by polyamide, an aluminum foil barrier, a polyvinylidene chloride layer and an outer layer of polyester. These bags are specifically designed for air sampling and are suitable for the storage and transportation of gas samples.

Cali-5-Bond™ bags are available in both pillow and snout shapes. The snout provides additional entry into the bag for flushing and sample collection.

Bags are equipped with a barbed on-off valve and silicone septum for easy sampling and can be purged with nitrogen or pure air gas and reused.

5-Layer Gas Sampling Bags

Nominal Size	Volume	Port Description	Part No.
<i>Snout-Shaped Gas Sampling Bags</i>			
8 x 15"	2L	Barbed Valve 1" Septa	4150
8 x 27"	5L	Barbed Valve 1" Septa	4152
16 x 16"	10L	Barbed Valve 1" Septa	4186
22 x 24"	22L	Barbed Valve 1" Septa	4154
<i>Pillow-Shaped Gas Sampling Bags</i>			
8 x 8"	1L	Barbed Valve 1" Septa	4188
8 x 11"	2L	Barbed Valve 1" Septa	4190
16 x 19"	15L	Barbed Valve 1" Septa	4192
31 x 55"	170L	Barbed Valve 1" Septa	4198

Gas Sampling Accessories

Gas Sampling Bulb with Septum Ports

- PTFE stopcocks for increased compatibility



best seller

Gas Sampling Bulbs

Description	Part No.
125mL, PTFE Stopcock	7012
250mL, PTFE Stopcock	7013
500mL, PTFE Stopcock	7011
1000mL, PTFE Stopcock	7066
Replacement Septa, 12/pk	7000

Gas Sampling Bulb with Twist-Lock Stopcocks

- Unique twist-lock stopcocks
- PTFE outlet tube connectors



Gas Sampling Bulbs

Description	Part No.
125mL, PTFE Stopcock	6950
250mL, PTFE Stopcock	6952
500mL, PTFE Stopcock	6954
Replacement Septa, 10/pk	6900

Gas Sampling Bulb with Injection Port and Valve Stopcocks

- Stored sample contacts only glass and PTFE
- Suitable for vacuum or pressure
- Semi-needle valve control



Gas Sampling Bulbs

Description	Part No.
125mL	6940
250mL	6942
500mL	6944
13-425 Open-Hole Caps, 100/pk	73090
TFE/Silicone Liners, 100/pk	98123

Vacuum Sampler

- No external pump required
- Reusable

These evacuated 1L vacuum samplers are fitted with a unique septum port and needle guide through which the container is filled and samples removed. A 4" long needle is supplied with each vacuum sampler (2 needles with the package of 12 samplers).



Vacuum Sampler

Description	Part No.
1L (1 needle), ea	8020
1L (2 needles), 12/pk	8022
Replacement Septa, 12/pk	8015

Gas and Vapor Sampler

- Sample bags are removable and resealable

Collect samples in resealable 200cc multilayer bags. Simply evacuate the canister using the supplied aspirator bulb. The bags can be removed for storage or shipment, freeing the canister for further sampling. Ten bags are included with each kit.



Gas and Vapor Sampler

Description	Part No.
Gas and Vapor Sampler Kit	4182
Replacement Bags, 10/pk	4184

related products

Looking for syringes?
See pages 336–347.

