

## 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.)	<b>Gas</b>	<b>Permeability**</b>	-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 <sub>2</sub>	1670			
		Hydrogen	2200			
		Nitrogen	320			
		Oxygen	750			
		Acetic Acid	0.41			
		<b>Vapor</b>	<b>Permeability***</b>			
		Acetone	0.95			
		Benzene	0.64			
		CCl <sub>4</sub>	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.)	<b>Gas</b>	<b>Permeability**</b>	-234–300°C	Recommended for analysis of non-corrosive gases, TCLP gases, CO, H <sub>2</sub> 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 <sub>2</sub>	11.1			
		Hydrogen	150			
		Nitrogen	0.25			
		Oxygen	3.2			
		<b>Vapor</b>	<b>Permeability***</b>			
		Acetic Acid	45			
		Acetone	10,000			
		Benzene	90			
		CCl <sub>4</sub>	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/(100in<sup>2</sup>)(24hrs)(atm/mil). \*\*\*gms/(100in<sup>2</sup>)(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	<b>41021</b>	<b>41023</b>	<b>41025</b>	<b>41027</b>
6" x 10"	1.2L	<b>41029</b>	<b>41031</b>	<b>41033</b>	<b>41035</b>
9" x 9"	2L	<b>41045</b>	<b>41047</b>	<b>41049</b>	<b>41051</b>
12" x 12"	5L	<b>41053</b>	<b>41055</b>	<b>41057</b>	<b>41059</b>
12" x 19"	10L	<b>41063</b>	<b>41065</b>	<b>41067</b>	<b>41069</b>

### 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	<b>41044</b>	<b>41046</b>	<b>41048</b>	<b>41052</b>
6" x 10"	1.2L	<b>41054</b>	<b>41056</b>	<b>41058</b>	<b>41064</b>
9" x 9"	2L	<b>41076</b>	<b>41078</b>	<b>41082</b>	<b>41084</b>
12" x 12"	5L	<b>41086</b>	<b>41088</b>	<b>41092</b>	<b>41094</b>
12" x 19"	10L	<b>41106</b>	<b>41108</b>	<b>41109</b>	<b>41125</b>
18" x 18"	16L	<b>41127</b>	<b>41129</b>	<b>41131</b>	<b>41133</b>
24" x 24"	40L	<b>41135</b>	<b>41137</b>	<b>41139</b>	<b>41149</b>
24" x 30"	56L	<b>41151</b>	<b>41153</b>	<b>41155</b>	<b>41157</b>

## Replacement Parts

#### Replacement Parts for Tedlar® and FEP Bags

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

## Gas Sampling Bags

### Combo Valve Gas Sampling Bags

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



6648

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	<b>41001</b>
9 x 9"	2L	2N1	<b>41003</b>
12 x 12"	5L	2N1	<b>41007</b>
12 x 19"	10L	2N1	<b>41011</b>
<i>FEP Gas Sampling Bags</i>			
6 x 6"	0.6L	2N1	<b>41002</b>
6 x 10"	1.2L	2N1	<b>41004</b>
6 x 12"	1.5L	2N1	<b>41006</b>
9 x 9"	2L	2N1	<b>41008</b>

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

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



1651

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	<b>4150</b>
8 x 27"	5L	Barbed Valve 1" Septa	<b>4152</b>
16 x 16"	10L	Barbed Valve 1" Septa	<b>4186</b>
22 x 24"	22L	Barbed Valve 1" Septa	<b>4154</b>
<i>Pillow-Shaped Gas Sampling Bags</i>			
8 x 8"	1L	Barbed Valve 1" Septa	<b>4188</b>
8 x 11"	2L	Barbed Valve 1" Septa	<b>4190</b>
16 x 19"	15L	Barbed Valve 1" Septa	<b>4192</b>

# Gas Sampling Accessories

## Gas Sampling Bulb with Septum Ports

- PTFE stopcocks for increased compatibility



best  
seller

### Gas Sampling Bulbs

Description	Part No.
1000mL, PTFE Stopcock	<b>7066</b>
Replacement Septa, 12/pk	<b>7000</b>

## 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	<b>4182</b>
Replacement Bags, 10/pk	<b>4184</b>

**related products**  
Looking for syringes?  
See pages 336–347.

