Gas sampling bags Product brochures

1. DEVEX Gas Sampling Bag



DEVEX gas sampling bags are developed by adopting international advanced film-making technology specifically for making high quality gas.

Features:

- *composed of total 11 layer films
- *superb strength and low permeability
- *excellent chemical inertness and stability *wide range of applications
- * low price

Standard Devex Gas Sampling Bag

Sizes:0.5L,1L,2L,3L,4L,5L,8L,10L,15L,20L,30L,and 40L or customized size.

Connectors



ptfe straight valve Plastic valve with side connector stopcock straight valve Sid-opening stopcock valve metal valve metal fitting

Plastic Straight Valve



Plastic valve is made of ABS with 5mm outer diameter shaft as connector. Plastic valve has on/off

function. When turn shaft clockwise, it moves down; the valve is closed; when shaft moves up, the valve is open. It can handle gases that are not corrosive to ABS.

Plastic valve with side connector

It is made of ABS with 6mm outer diameter connector. When turn cap counter-clockwise, the valve is open; when turn cap clockwise, the valve is closed. Do not overtight the cap to prevent damage of valve. Just finger tight. The cap comes with septum that can be used to withdraw with a syringe. It can handle gases that are not corrosive to ABS.

Stopcock straight valve

It's made of medical grade polycarbonate (PC) with 6mm connector. Valve stem (connector) is vertical to the surface of film. The valve utilizes patented technology. The valve body and cock are modeled and polished so that the valve does not need lubricant and sealing part, the cross-contamination is eliminated. The valve not only has on/off function but also can control flow rate. When turn handle toward the connector, the valve is open. The valve is closed when the handle is turned vertically to the connector. The crewed connector has cap with silicone septum in it, which is convenient for sampling. Since the valve does not introduce any potential contamination, it can be used for VOC analysis.

Side-opening stopcock valve

It has similar functions to the stopcock valve . The difference is the connector it horizontal to the surface of bag. The sampling cap is opposite to the connector. This patented design is convenient for filling and sampling gas.

Metal valve

Metal valve is made of nickel-plated copper alloy with 5mm connector. The connector not only uses to fill or release gas sample but also is shut-off valve. When turn the connector counterclockwise, it moves up, the valve is open; the valve is closed when it moves down. The connector should move up rapidly to prevent leaking since the distance of movement is very short. The metal valve can be used in collecting or storing non-corrosive inorganic and organic gases.

Metal Fitting

Metal fitting is made of nickel-coated copper alloy with 7mm outer diameter. The cap comes with a silicone septum for easy sampling with a needle. Remove the cap when perform filling gas sample or flushing the bag. The metal can be used in the circumstance that there is no corrosive inorganic gases or organic gases.

Product brochures

1.Avoid filling pressure higher than 6000Pa. Fill gas until the bag is fully expanded, however, it is not so tense when you press it using your finger.











- 2. Keep away from flame and high temperature when filling and storage. Avoid contacting sharp stuff.
- 3.Before use, flush sampling bags three times with the gas you want to fill. When using a needle to draw gas from highly elastic septum, squeeze the septum with fingers in order to restore the sealing property after pulling out the needle. Working temperatures should be -15° C to $+60^{\circ}$ C .rating

Instructions for DEVEX bag

DEVEX film is developed specifically for making high quality gas sampling bags. It is composed of total 11 layer films (PET, PA, Aluminum, PE, etc) with thickness 120-140um. It has superb strength and low permeability; meanwhile it possesses excellent chemical inertness and stability. The overall property of DEVEX film exceeds that of PVDC film such as Saran. During lamination, environmental-friendly adhesive is used to eliminate solvent residue such as benzene, acetone, and esters. DEVEX gas sampling bags have a wide range of applications including hydrocarbons, CO,CO2, nitrogen, hydrogen, oxygen, hydrogen sulfide, nitrogen oxides and halogens. But it is not recommended to use for hydrogen sulfide, nitrogen oxides and halogens at ppb level. Compared to Polyfluoro film bags, DEVEX bags have low price, and can be used in VOCs assessment.

2.TEDLAR Gas Sampling Bag

Tedlar® PVF film is tougher and more economical than FEP, and is commonly used in vehicle emission testing.

Features:

- *No contamination of gas sample
- *Easily cleaned for re-use by gas flushing
- *Very low permeation of gases through the wall of the gas sample bag
- *Wide range of sizes *Special designs for unusual requirements
- *Large capacity chambers *Internal manifolds if required

Standard TEDLAR Gas Sampling Bag

Sizes:0.5L,1L,2L,3L,4L,5L,8L,10L,15L,20L,30L,and 40L or customized size.

Connectors



PTFE straight valve and Side-opening PTFE valve

It is made of polytetrafluoroethylene (PTFE). The patented design utilizes mouldeling,



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self-sealing mechanism, no O-ring is inside therefore cross-contamination is eliminated. The PTFE valve can handle gases that there is not corrosive to PTFE. The valve can be used in VOCs analysis.

Stopcock straight valve

It's made of medical grade polycarbonate (PC)

with 6mm connector. Valve stem (connector) is vertical to the surface of film. The valve utilizes patented technology. The valve body and cock are modeled and polished so that the valve does not need lubricant and sealing part, the cross-contamination is eliminated. The valve not only has on/off function but also can control flow rate. When turn handle toward the connector, the valve is open. The valve is closed when the handle is turned vertically to the connector. The crewed connector has cap with silicone septum in it,



which is convenient for sampling. Since the valve does not introduce any potential contamination, it can be used for VOC analysis.

Side-opening stopcock valve

It has similar functions to the stopcock valve. The difference is the connector it horizontal to the surface of bag. The sampling cap is opposite to the connector. This patented design is convenient for filling and sampling gas.

Product brochures

- 1.Avoid filling pressure higher than 6000Pa. Fill gas until the bag is fully expanded, however, it is not so tense when you press it using your finger.
- 2. Keep away from flame and high temperature when filling and storage. Avoid contacting sharp stuff.
- 3. Before use, flush sampling bags three times with the gas you want to fill.
- 4. When using a needle to draw gas from highly elastic septum, squeeze the septum with fingers in order to restore the sealing property after pulling out the needle.
- 5. Working temperatures should be -60°C to +150°C for PTFE connector and -20°C to +80°C for stopcock valve

Detailed introduction

Our PVF gas sampling bags are made of 2mil DuPont's Tedlar® film. Tedlar® film is strong, durable, and considered chemically inert to a wide range of compounds. Tedlar gas sampling bags are accredited by regulatory agencies in different countries and widely used indoor air sampling, waste processing yard gas sampling, soil sampling and other environmental protection application. Our TEDLAR sampling bags come with renovated, patented valves. Valve materials are polycarbonate or PTFE.

Depending on inlet orientation, there are two types of valves. One type is that the inlet in vertical to the film; other one is horizontal to the film. Both valves have the same functionalities: it has on/off function; has a cap with septum in it for sampling purpose. Both valves are easy to use. One advantage of horizontal valve(side opening) is to use less storage space.

3. Kynar PVDF Gas Sampling Bag

Our PVDF gas sampling bags are made of 3 mil KYNAR® film. KYNAR® film is strong, durable, and has excellent

chemical inertness. It can be used a wide range of gas sampling applications.

Features:

- * excellent chemical resistance
- * strong physical property
- * superb strength and low permeability Standard Kynar PVDF Gas Sampling Bag Sizes:0.5L,1L,2L,3L,4L,5L,8L,10L,15L, 20L,30L,and 40L or customized size.



Connectors













Side-opening stopcock valve

It has similar functions to the stopcock valve . The difference is the connector it horizontal to the surface of bag. The sampling cap is opposite to the connector. This patented design is convenient for filling and sampling gas.



PTFE straight valve

It is made of polytetrafluoroethylene (PTFE). The patented design utilizes mouldeling, self-sealing mechanism, no O-ring is inside therefore cross-contamination is eliminated. The PTFE valve can handle gases that there is not corrosive to PTFE. The valve can be used in VOCs analysis.



PTFE straight valve plus fitting

It is made of polytetrafluoroethylene (PTFE). The patented design utilizes mouldeling, self-sealing mechanism, no O-ring is inside therefore cross-contamination is eliminated. The PTFE valve can handle gases that there is not corrosive to PTFE. The valve can be used in VOCs analysis.



Stopcock straight valve

It's made of medical grade polycarbonate (PC) with 6mm connector. Valve stem (connector) is vertical to the surface of film. The valve utilizes patented technology. The valve body and cock are modeled and polished so that the valve does not need lubricant and sealing part, the cross-contamination is eliminated. The valve not only has on/off



function but also can control flow rate. When turn handle toward the connector, the valve is open. The valve is closed when the handle is turned vertically to the connector. The crewed connector has cap with silicone septum in it, which is convenient for sampling. Since the valve does not introduce any potential contamination, it can be used for VOC analysis.

Product brochures

Operating instructions for PVDF bag

- 1.Avoid filling pressure higher than 6000Pa. Fill gas until the bag is fully expanded, however, it is not so tense when you press it using your finger.
- 2. Keep away from flame and high temperature when filling and storage. Avoid contacting sharp stuff.
- 3. Before use, flush sampling bags three times with the gas you want to fill.
- 4. When using a needle to draw gas from highly elastic septum, squeeze the septum with fingers in order to restore the sealing property after pulling out the needle.
- 5.Heat-resisitance temperatures should be 150°C to 170°C. Operating instructions for PVDF bag

Detailed introduction

Our PVDF gas sampling bags are made of 3 mil KYNAR® film. KYNAR® film is strong, durable, and has excellent chemical inertness. It can be used a wide range of gas sampling applications. Our PVDF gas sampling bags can maitain compositions of some gases stable at ppm or ppb level.

Our KYNAR® PVDF gassampling bags come with renovated, patented valves. Valve materials are polycarbonate and PTFE. Unlike other popular valves, our valve does not have O-ring inside to prevent leakage so contamination is minimized.

4. FLUODE Gas Sampling Bag

FLUODE film has the same characteristics as PVDF (Polyvinylidene fluoride). It is an alternative of PVDF film with low cost.

Features:

- *superb strength and low permeability
- *excellent chemical inertness and stability

Standard FLUODE Gas Sampling Bag

Sizes:0.5L,1L,2L,3L,4L,5L,8L,10L,15L,20L,30L,and 40L or customized size.

Connectors







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GUS INDUSTRY (HONGKONG) CO., LIMITED **PROCHEMA** Co., ltd **MIANYANG** Commercial

Side-opening PTFE valve plus PTFE fitting PTFE straight valve plus fitting Side-opening stopcock valve It is made of polytetrafluoroethylene (PTFE). The patented design utilizes mouldeling, self-sealing mechanism, no O-ring is inside therefore cross-contamination is eliminated. The PTFE valve can handle gases that there is not corrosive to PTFE. The valve can be used in VOCs analysis.

Product brochures

Operating instructions for FLOUDE bag

- 1. Avoid filling pressure higher than 6000Pa. Fill gas until the bag is fully expanded, however, it is not so tense when you press it using your finger.
- 2. Keep away from flame and high temperature when filling and storage. Avoid contacting sharp stuff.
- 3. Before use, flush sampling bags three times with the gas you want to fill.
- 4. When using a needle to draw gas from highly elastic septum, squeeze the septum with fingers in order to restore the sealing property after pulling out the needle.
- 5.Heat-resisitance temperatures should be 150°C to 170°C.

Detailed introduction

Fluode film has the same same characteristics as PVDF (Polyvinylidene fluoride). It is an alternative of PVDF film with low cost.Our FLUODE gas sampling bags are equipped with renovated, patented valves. Valve materials are polycarbonate . Unlike other popular valves, our valve does not have O-ring inside to prevent leakage so contamination is minimized.

5.FEP GAS SAMPLING BAG

FEP(Fluorinated ethylene propylene) film is the most chemically resistant film in the fluoropolymer family.

Features:

- *No contamination of gas sample
- *Easily cleaned for re-use by gas flushing
- *Very low permeation of gases through the wall of the bags
- *Range of inert connectors for ease of use

Standard FEP Gas Sampling Bag

Sizes:0.5L,1L,2L,3L,4L,5L,8L,10L,15L,20L,30L,and 40L or customized size.

CONNECTORS

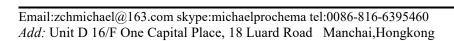








PTFE straight valve Side-opening PTFE valve Stopcock straight valve Side-opening stopcock valve



Product brochures

Operating instructions for FEP bag

- 1.Avoid filling pressure higher than 1000Pa. Fill gas until the bag is fully expanded, however, it is not so tense when you press it using your finger.
- 2. A latex or silicon rubber hose should be used to connect to the analytical instrument from the gas sample bag; meanwhile a clamp can be used to control the flow.
- 3. Gas sample can be released or filled through plastic fitting; Gas sample can be taken by needle from sampling fitting. Vacuum can be done through sampling fitting. You also can open sampling fitting for easy flushing. Plastic fittings and sampling fittings are made of polypropylene. They can handle non-corrosive organic or inorganic gases.

Detailed introduction

Polyfluoro film has superb chemical inertness, ultra low adsorption and ultra low permeation. Polyfluoro film gas sample bags can handle and store various highly corrosive and highly active gaseous and liquid samples. They are widely used in petrochemical industry and environmental protection areas.

Currently there are three types of poly fluoro films that can be used to manufacture gas sample bags. Polyvinyl fluoride (PVF) film has a long history in making gas sample bags. Polyvinylidene fluoride (PVDF) is another type of poly fluoro film. The third type of poly fluoro film is called fluorinated ethylene propylene copolymer (FEP). Both PVF and PVDF films possess excellent chemical inertness, low gas adsorption and low permeation. FEP film has superb chemical inertness, ultra low gas adsorption and low permeability. Only drawback of the FEP film is that the mechanical strength of FEP is little bit lower than that of PVF and PVDF films. It does not have any negative impact on as an excellent gas sample storage material.

Our FEP film used to make gas sample bags is supplied by a renowned world-class manufacturer. company has strict total quality control systems in place to assure that all products are high quality. The designs of fittings are patented; fittings and valves are manufactured with high precision and convenient to use. To avoid cross-contamination, there is no any rubber material to contact with gas sample; and the authenticity and integrity of the sample are protected during storage. In the circumstance of light and strength are the factors to be considered, gas sample bags made from FEP layered with aluminum film are available for better protection from the light (MF series products, special order).

Aluminium-foil Multi-layer Gas Sampling Bags

Aluminium-foil Multi-layer film is composite made of nylon membrane(PA), aluminum foil(AL) and polyethylene film(PE) with two-component adhesive, it is excellent alternative of rubber laner tube. It can be used for light sensitive gas samples preservation, mainly used for conventional analysis of sampling, filling stable chemical properties gas, e.g., oil cracking gas, natural gas, coal bed gas, smoke gas, ambient atmosphere, technological process reaction gas and inorganic gas such as nitrogen hydrogen oxygen argon gas.

Features

- •excellent physical strength and chemical inertness
- •no transparent, low adsorption and low permeability and air-tightness
- •convenient to collect and store gas samples
- •the bag is of plastic valve or metal valve, filling gas displacement is convenient; unique high-elastic tensile rubber sample pad is dedicated to needle sampling
- •widely used in petrochemical industry, environmental protection and scientific research institutes
- ·Standard Aluminium-foil (Multi-layer) Gas Sampling Bag

Sizes: $0.5L,1L,2L,3L,4L,5L,8L,10L,15L,20L,30L,40L\sim6000L$ or customized size.



Aluminium-foil(Multi-layer)
film—PC stopcock straight
valve



Aluminium-foil(Multi-layer)
film—PC side-opening
stopcock valve



Aluminium-foil(Multi-layer)
film—ABS twist-type
straight valve



Aluminium-foil (Multi-layer) film—ABS (L-type) On/Off Combination valve with side connector



Aluminium-foil (Multi-layer) film—metal fitting



Aluminium-foil (Multi-layer) film—pc fitting



Aluminium-foil(Multi-layer) film—PTFE straight valve



Aluminium-foil (Multi-layer) film-side-opening PTFE valve



Aluminium-foil (Multi-layer)
film——PP screw cap combo
valve