TECHINSTRO®
Vision Beyond Technology

Multi-Layer Foil Gas Sampling Bag

User Manual

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A multi-layer foil gas sampling bag (Multifoil gas sampling bag) is a low-cost sampling bag (air sampling bag) with four protective film layers. Outward to inward, the bag has one layer of 60 gauge nylon, two layers of 0.0003-inch thick aluminum foil, and one layer of 0.002-inch thick polyethylene. Since it primarily consists of aluminum film, researchers also call it an aluminum-foil gas sampling bag. The Multi-foil gas sampling bags show reliable stability for gases of lower molecular weights. It is an excellent alternative to traditional canisters and helps collect indoor and outdoor air samples. Air sampling is essential to check air quality according to government norms. It also examines part-per-billion (ppb) to part-per-million (ppm) levels of various types of gases, keeping air quality under control by taking necessary measures to reduce pollution.

Properties

- Product name – Multi-layer foil gas sampling bag
- Product Series – MLF-TI
- Colour – Silver
- MOC – Aluminum, Polyethylene, Nylon, and PP
- Number of layers - 4 layers
- Composition: 60 gauge nylon (outer layer), 0.0003-inch aluminum foil (two-layer), 0.002-inch polyethylene (inner layer)
- Filling capacity - < 90% of the total volume
- Pressed Density - 2.3 g/cm3
- Thermal Conductivity - 119-170 W/m/K
- Heat of Vaporization - 128 K-Cal/gm atom at 4612 °C

- Thickness - 0.004 inches
- Tensile Strength - 19 lbs/in
- Max. Operating Temperature - 82 °C (180 °F)
- Specific Gravity - 1.09 g/mL
- Oxygen Permeability - 0.0078 cc/m2/ day at 0% RH, 23 °C
- Water vapor permeability - 0.0078 g/m2/day to 90% RH, 40 °C
- Permeability of carbon dioxide - 0.0078cc/m2/day
- Storage - @ room temperature
- Delivery Method - Air, transport, or sea mode
- Packing - Airtight moisture-free packaging
- Available pack sizes - 10, 25, 50, and 100 pieces
- Customization - Available

Features

- It helps to protect the air sample from heat and moisture.
- It is leakproof and does not emit any gas.
- The samples last for almost 72 hours. However, we suggest that the researchers test the sample at the earliest.
- It is chemically inert and does not contaminate the air samples.
- It is tough, flexible, and can tolerate a temperature range from -72° to 107°C.
- It is easy to use and handle.

Applications

- It helps collect and transport methane, carbon dioxide, carbon monoxide, and permanent gases.
- It is helpful to collect indoor, outdoor, and stationary gasses.
- It helps to check air pollution in power plants, workstations, work environments, and many more

How to do Gas Sampling by Multi-layer foil bag?

- The Multi-layer foil gas sampling bag has a nozzle on the top of the bag. Attach it to the valve and open it.
- It is advisable to fill the bag to 80% of its capacity, or else there is a risk of the bag bursting due to varying air pressure.
- Close the valve and detach the bag once it has filled. Do not disconnect the bag without closing the valve.
- Researchers can also use a low-flow air sample pump for easy filling of the bag.

Safety

- As the gas sampling bags are reusable, the researchers should consider that the bag should be clean before use. To clean the bag, researchers can flush nitrogen in the bag.
- Remember to take two bags for the same sample so that if one bag bursts, the second sample remains.
- The gases we work with are dangerous and hazardous if they come in contact with the human body.
- The operator should always wear protective equipment such as gloves, masks, eye-protecting goggles, face shields, and PPE kits.
- If one inhales the gas accidentally, rush to open air. If anyone faints, give mouth-to-mouth respiration and run to the hospital immediately.
- If the gases come in contact with the eyes, rinse the eyes with cold water. If irritation persists, seek medical advice.
- The air sampling bags hold air samples effectively for 48 hours. Make sure that they reach the lab before it.

Feel Free to Reach Us
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