

# **TEDLAR BAGS**

### **USER MANUAL**

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These gas sampling bags are made of Polyvinyl Fluoride (PVF) film, a patented product of Du Pont. The commercial name of PVF is Tedlar; hence it is known as the Tedlar bag. Generally, it is used for gas analysis applications in the hot stack and industrial chimneys where the temperature of flue gas is very high. Due to its high resistance to heat, this is the ideal sampling bag in these conditions.

#### Product Series: Tedlar-TI

#### **Technical Properties:**

- Material of Film: PVF
- Material of valve Polypropylene (PP)
- Film Thickness 2 mil
- Operating Temperature 477 Degrees Kelvin
- Tensile Strength 7,980 psi
- Material Specific Gravity 1.69 g/ml

#### Features:

- It is leak-proof and protects the gas samples from the external environment.
- It is flexible yet tough and does not suffer damage easily.
- It is non-reactive and does not affect the quality of the collected gas samples.
- It can withstand a temperature range from -72°C to 107°C.

## **Applications:**

- Indoor Air Sampling
- Gas Blending
- Assessing Exposures from Leaks and Spills
- Leaky Underground Storage Tanks
- Sampling from Vents or Flues
- Hazardous Waste Site Sampling
- Measuring Anesthetic Gases in Operating Rooms
- Stack Sampling
- Soil Gas Sampling
- Calibration Gas Standards



### How to do Gas Sampling by Tedlar bag?

- 1. Take a fresh gas sampling bag and air-filling pump.
- 2. Note the sample number, time, and date on the sticker.
- 3. The rubber tube of the pump should be attached to the hose on the valve.
- 4. Make sure that the fitted tube in the hose is completely tight.
- 5. Open the valve by turning it in the anti-clockwise direction.
- 6. Fill the bag with the help of a pump.
- 7. It is advisable to fill the sample only up to 90% capacity of the bag to avoid leakages and excessive pressure on the film.
- 8. Once the bag is filled with sampling gas, close it by turning the valve in a clockwise direction.
- 9. Then, the rubber tube was detached from the hose, which made it available for gas analysis.
- 10. Take out the samples through the small hole at the top of a valve.
- 11. The sampling performs by airtight syringe through the septum in Gas chromatography (GC).

### Safety

- 1. Store bags in a clean environment and avoid contamination sources.
- 2. If the researcher is reusing the bag, clean it with nitrogen or any inert gas before use.
- 3. Never fill the bags at more than 90% capacity.
- 4. Seal the gas-filled bags in an unpressured opaque box if shipping through the air to avoid accidental damage.
- 5. Do not use bags to collect unstable or highly reactive compounds.
- 6. The researcher should collect at least two samples of the same gas to ensure no hassle due to leakage or bursting of any bag during transportation.
- 7. The operator should keep the air-filled bag away from direct sunlight and extreme heat to avoid ravaging the sample's quality.

Feel Free to Reach Us

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