

GL Sciences offer the Smart Bag series of sampling bags, based on a range of materials and dimensions, suitable for different target compounds. Sampling bags are widely used as a convenient sampling method for automobile interior materials, automobile emissions, work environments, building materials and textiles. Gas samples collected can be directly injected into a gas chromatograph. These bags are an ideal accessory for applications involving MonoTrap sampling.

Sampling Bags

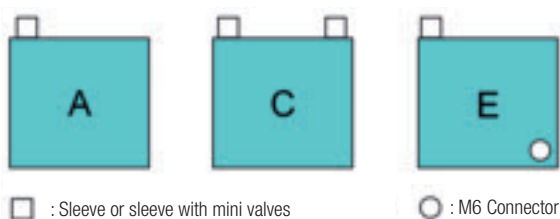
Description	Material	Temperature Limit (°C)	Film Thickness (µm)	Properties	Applications
Smart Bag PA	Vinyl alcohol polymer film	120	53	Superior resistance to solvents, heat and permeation	Automobile interior materials, automobile emissions, diffusion gases from materials, inorganic gases
Smart Bag 2F	Polyvinylidene fluoride (PVDF) film	120	50	Superior resistance to solvents and heat	Automobile interior materials, automobile emissions, diffusion gas from materials
ANALYTIC-BARRIER™ Bag	Proprietary	70	45	Good resistance to permeation, low background	Automobile interior materials, inorganic gases
Fluororesin Bag	Ethylene-tetrafluoroethylene copolymer film	110	50	Good resistance to solvents and heat	Organic solvents
Aluminium Bag	Laminated film ¹	65	130	Good permeation resistance to inorganic gas, methane	Inorganic gases
Polyester Bag	Polyester film	n/a	38	Good permeation resistance to VOCs	Volatile organic compounds (VOCs), odour analysis

¹ From outer: nylon, polyethylene, aluminium foil, polyethylene

Selection of Sampling Bag

In order to achieve highly reliable test results, the appropriate sampling bag should be chosen depending on the target compounds required to be collected. The following parameters need to be selected:

- 1) Material** – The range of materials used in the Smart Bag product line is summarised in the table above. The choice of material is important, in order to optimise adsorption and to minimise interference from background peaks.
- 2) Shape** – Three configurations (A, C and E) are available - see Figure 1.
- 3) Connector (PTFE)** – Different diameter sleeves, with or without mini valves or M6 connectors, can be incorporated (see Figure 2).
- 4) Volume** – 1, 2, 3, 5 and 10 litre volume bags are available as standard. Other sizes are available on request.



□ : Sleeve or sleeve with mini valves
○ : M6 Connector

Figure 1. Configurations of Smart Bags

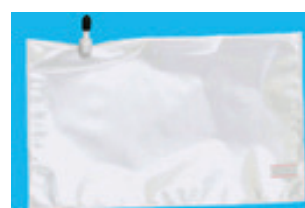


Figure 2. Connectors

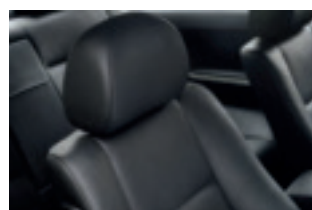
Smart Bag PA

Smart Bag PA, made from vinyl alcohol series polymer film, is one of the most popular sampling bags. It shows excellent resistance to solvents and heat, and very few impurities are generated from the material. Smart Bag PA also avoids the permeation of O₂ or CO₂. This enables a wide range of sampling from inorganic to organic gases.

Please contact Hichrom for further details and ordering information for these sampling bags.



Smart Bag PA



Automobile interior materials



Environmental air



Automobile emissions



Work environment