

High Purity Pfa Filtration Bottle With Integrated Sieve Plate And Squeezable Body For Trace Analysis

Item Number: PL-CP181



Introduction

Premium PFA filtration bottles feature integrated sieve plates and squeeze-action dispensing for high-purity trace analysis. These customizable units ensure zero contamination and extreme chemical resistance in semiconductor and environmental laboratory workflows.

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Application	Description	Key Benefit
Trace Element Analysis	Storage and filtration of samples for ICP-OES and ICP-MS detection in environmental labs.	Eliminates background noise and secondary contamination from container walls.
Semiconductor Processing	Handling and dispensing of ultra-high purity acids and photoresists in cleanroom environments.	Maintains the extreme purity levels required for wafer fabrication and chemical delivery.
LC-MS/MS Sample Prep	Preparation and storage of mobile phases like acetonitrile and ammonium acetate for mass spectrometry.	Ensures baseline stability and prevents organic solvent penetration and leaching.
Heavy Metal Detection	Storing 2% nitric acid diluents and rinsing solutions used in analytical chemistry.	Minimizes ion adsorption, ensuring the accuracy of heavy metal quantification.
Pharmaceutical R&D	Processing of high-value active pharmaceutical ingredients (APIs) in aggressive solvent systems.	Provides a non-reactive environment that preserves the integrity of sensitive compounds.
Environmental Monitoring	Collection and filtration of seawater or groundwater samples for sub-ppb level analysis.	Prevents loss of trace analytes to the container surface through hydrophobic properties.
Battery Research	Handling of corrosive electrolytes and chemical components in lithium-ion battery testing.	Resists degradation from harsh electrochemical reagents while maintaining sample purity.
Volatile Chemical Storage	Secure containment of high-purity organic solvents and volatile organic compounds (VOCs).	Superior sealing and low permeability prevent sample loss and atmospheric contamination.

Feature	Specification Details for PL-CP181
Model Number	PL-CP181
Primary Material	High-Purity Perfluoroalkoxy (PFA)
Fabrication Method	Precision Blow Molding and CNC Machining
Bottle Capacity	Fully Customizable to Client Specifications
Sieve Plate Configuration	Customizable Pore Size and Hole Pattern (Custom CNC)
Wall Construction	Flexible/Squeezable Design with Reinforced Base
Temperature Resistance	Customizable based on Application Range
Chemical Compatibility	Universal (Except molten alkali metals and fluorine gas)
Closure Type	Threaded PFA Cap with Precision Seal

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Surface Finish	Ultra-Smooth, Hydrophobic, Non-Stick	
Trace Metal Background	Low-ppb to ppt levels (Material Grade Specific)	
Sieve Plate Diameter	Tailored to Bottle Internal Diameter	