

Pfa Reaction Jar Corrosion Resistant Wide Mouth Ptfе Lab Bottle High Purity Chemical Vessel

Item Number: PL-CP403



Introduction

Engineered for high-purity trace analysis this corrosion-resistant PFA reaction jar offers exceptional chemical inertness and ultra-low metal ion leaching ensuring contamination-free sample preparation and storage for demanding laboratory environments and complex chemical synthesis applications across various sectors.

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Application	Description	Key Benefit
Semiconductor Processing	Storage and dispensing of high-purity etching and cleaning fluids for wafer fabrication.	Prevents trace metal contamination of sensitive silicon substrates.
Trace Element Analysis	Sample digestion and preparation using strong mineral acids for ICP-MS or AAS analysis.	Ensures extremely low background levels for accurate data reproducibility.
Pharmaceutical Synthesis	Reaction vessel for the development of active pharmaceutical ingredients (APIs) involving corrosive reagents.	Eliminates leaching of plasticizers and ions into the drug formulation.
Environmental Monitoring	Collection and digestion of soil or water samples for heavy metal detection and pollutant analysis.	Prevents sample loss via wall adsorption and ensures environmental integrity.
LC-MS/MS Sample Prep	Preparation of mobile phases and standards including ultrapure water, acetonitrile, and ammonium acetate.	Maintains baseline stability and prevents signal interference from contaminants.
Battery Research	Testing and containment of aggressive electrolytes used in lithium-ion and next-generation battery development.	High chemical resistance to lithium salts and organic carbonates.
Plant Science	Storage of growth regulators like BAP and GA3 used in tissue culture media preparation.	Prevents adsorption of hormones to the vessel walls, maintaining precise concentrations.
Cryogenic Storage	Long-term containment of sensitive biological or chemical samples in liquid nitrogen environments.	Maintains flexibility and seal integrity at ultra-low temperatures without cracking.

Attribute	Specification Details (Model: PL-CP403)
Base Material	High-Purity Perfluoroalkoxy (PFA) / Polytetrafluoroethylene (PTFE)
Standard Capacities	700ml, Multi-spec availability from 5ml to 10L+
Customization Support	Fully Customizable Dimensions, Ports, and Geometry
Manufacturing Process	Precision CNC Machining and Custom Fabrication
Temperature Range	-200°C to +260°C
Chemical Resistance	Universal resistance to acids, bases, and solvents (except molten alkali metals)
Leaching Levels	Optimized for Trace Analysis (Parts-per-trillion levels)
Closure Type	High-performance screw cap with integrated sealing ring (Customizable)
Wall Configuration	Heavy-wall design for enhanced durability and thermal insulation

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Surface Finish High-gloss, smooth interior to prevent sample hang-up