

High Purity Pfa Sample Dissolution Cups Acid Resistant Chemical Digestion Vessels With Lids Trace Analysis Labware

Item Number: PL-CP36



Introduction

Engineered for ultra-trace analysis, these high-purity PFA sample dissolution cups offer extreme chemical resistance and ultra-low metal background levels. Ideal for ICP-MS sample preparation, ensuring maximum sample integrity and reliable data in demanding laboratory environments and industrial workflows.

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Application	Description	Key Benefit
Trace Metal Analysis	Digestion of environmental or biological samples using concentrated HNO ₃ or HCl for ICP-MS detection.	Minimizes blank values for accurate detection of sub-ppb level contaminants.
Semiconductor Processing	Storage and transport of ultra-pure wet chemicals and etching solutions used in wafer fabrication.	Prevents ionic contamination that could compromise semiconductor device performance.
Geochemical Digestion	Decomposition of silicate rocks and mineral samples using hydrofluoric acid (HF) at elevated temperatures.	Resistant to HF which dissolves glass/quartz; provides high-temperature stability for refluxing.
Pharmaceutical Quality Control	Preparation of active pharmaceutical ingredients (APIs) for heavy metal testing according to USP standards.	Ensures compliance with strict regulatory purity requirements and prevents sample-vessel interaction.
Environmental Monitoring	Long-term storage of acid-preserved water and soil leachates for monitoring pollutants in remote areas.	Excellent sealing prevents sample loss; chemically inert material prevents leaching during storage.
Battery Research	Testing of electrolyte components and corrosive additives in high-performance lithium-ion battery development.	Withstands aggressive solvents and salts used in advanced battery chemistry research.

Parameter	Specification Detail for PL-CP36
Material	Ultra-pure Perfluoroalkoxy Alkane (PFA)
Standard Volume	5ml (Base configuration available for PL-CP36)
Customization Capability	Fully customizable dimensions, volumes, and thread types
Temperature Range	-200°C to +260°C
Chemical Resistance	Resistant to all acids, bases, and organic solvents (e.g., HF, Aqua Regia)
Lid Design	Threaded sealing cap with integrated leak-proof seal
Surface Finish	High-precision CNC machined, mirror-smooth interior surface
Blank Value Control	Low background levels suitable for ultra-trace analysis
Wall Geometry	Available in flat-bottom, round-bottom, or conical internal geometries