Custom Pfa Reaction Bottles High Purity Ptfe Reaction Vessels Corrosion Resistant Petrochemical Containers

Item Number: PL-CP362

Introduction

Professional custom PFA reaction bottles and PTFE vessels for petrochemical analysis offer superior corrosion resistance and zero metal ion leaching. Engineered for low-pressure applications, these high-purity containers ensure absolute sample integrity in critical laboratory synthesis environments.

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Application	Description	Key Benefit
Petrochemical Analysis	Storage and reaction of crude oil derivatives and aggressive catalysts.	Prevents sample contamination from vessel leaching.
Trace Element Detection	Sample preparation for high-sensitivity analytical instruments like LC-MS/MS.	Ensures accurate data by maintaining ultra-high purity levels.
Semiconductor Processing	Handling of high-purity etching chemicals and photoresist solvents.	Protects sensitive substrates from metallic impurities.
Acid Digestion	High-temperature dissolution of minerals or organic matter using HF or Aqua Regia.	Total resistance to the most aggressive acid mixtures.
Battery Research	Testing of electrolyte stability and electrode materials in corrosive environments.	Maintains chemical integrity of experimental electrolytes.
Pharmaceutical Synthesis	Reaction vessel for complex organic molecules requiring high solvent purity.	Reduces cleaning time and prevents cross-batch contamination.
Environmental Monitoring	Collection and digestion of soil or water samples for heavy metal analysis.	Low background noise for high-sensitivity measurements.

Specification Category	Parameter Details (Model: PL-CP362)
Material Composition	High-Purity Perfluoroalkoxy (PFA) / Polytetrafluoroethylene (PTFE)
Pressure Rating	Maximum Operating Pressure: 0.06 Mpa
Chemical Resistance	Universal (Strong Acids, Strong Bases, Organic Solvents, HF)
Impurity Profile	Extremely low leaching of metal ions and organic carbon
Surface Finish	High-gloss, non-stick CNC machined internal and external surfaces
Thermal Range	Optimized for wide-range thermal cycling (Customizable per application)
Customization Options	Fully customizable dimensions, volume, ports, and sealing types
Sealing Mechanism	Precision-threaded cap with optional integrated septa or valves
Fabrication Method	100% Solid-block CNC machining or specialized molding