

Customizable Pfa Reaction Tank 6L High Purity Corrosion Resistant Reaction Bottle For New Material Synthesis And Chemical Processing

Item Number: PL-CP414



Introduction

High-purity 6L PFA reaction tank offers universal chemical resistance for corrosive solvents. Engineered for new material synthesis, this customizable reaction bottle ensures zero-contamination and extreme durability in demanding laboratory and industrial chemical processing applications.

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Application	Description	Key Benefit
Graphene Oxide (GO) Synthesis	Handling concentrated sulfuric acid and potassium permanganate during the Hummers' method or acid washing.	Complete resistance to strong oxidants and acids without vessel degradation.
Trace Metal Analysis	Preparation and storage of ultra-pure samples and standard solutions for ICP-MS or AAS testing.	Eliminates background noise by preventing metal ion leaching from the container walls.
Semiconductor Wet Processing	Etching and cleaning of silicon wafers using high-purity hydrofluoric acid and solvent blends.	Maintains chemical purity essential for high-yield semiconductor manufacturing.
New Material Development	Synthesis of MOFs, COFs, and ZIF-8@GO composite materials requiring specific atmospheric and purity controls.	Ensures the chemical integrity of sensitive porous structures during growth.
Battery Research	Testing of electrolyte formulations and lithium-ion battery precursors involving corrosive lithium salts.	Long-term durability against aggressive electrolyte solvents and additives.
Pharmaceutical Intermediate Synthesis	Multi-step organic reactions involving halogenated solvents and corrosive catalysts.	Non-stick surface facilitates easy recovery of high-value active pharmaceutical ingredients.
Environmental Testing	Digestion of soil and water samples using aqua regia or other aggressive acids for pollutant detection.	Withstands harsh digestion conditions while preventing cross-sample contamination.

Feature	Specification for Item PL-CP414
Standard Capacity	6000 mL (6 Liters)
Material Construction	Ultra-High Purity PFA (Perfluoroalkoxy)
Operating Temperature Range	-200°C to +260°C
Chemical Resistance	Universal (Except molten alkali metals, fluorine at high temperatures)
Fitting Type	Fully Customizable (e.g., NPT, GL45, Compression, Flange)
Port Configuration	Custom Number and Placement (Lid or Body)
Wall Thickness	Engineered for High Durability (Customizable)
Fabrication Method	Precision CNC Machining & Thermal Molding
Surface Finish	Smooth, Non-Porous, Low-Friction
Lid Design	Screw Cap or Flanged Bolted Lid (Customizable)