Pfa Reaction Tank 6L Customizable Fittings Corrosion Resistant Solvent Resistant Pfa Reaction Bottle For New Material Synthesis

Item Number: PL-CP200

Introduction

Engineered 6L PFA reaction tank with customizable fittings provides unmatched resistance to corrosive solvents. This high-purity vessel is optimized for new material synthesis, ensuring zero contamination and long-term durability in the most demanding industrial laboratory environments and processes.

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Application	Description	Key Benefit
Graphene Oxide (GO) Synthesis	Handling concentrated sulfuric acid and potassium permanganate during the Hummers method or similar processes.	Complete resistance to strong oxidizing acids and ultra-low metal ion dissolution.
Semiconductor Etching	Mixing and storing high-purity etching solutions such as hydrofluoric acid for wafer processing.	Ensures zero contamination of the etchant, protecting sensitive electronic components.
Pharmaceutical API Synthesis	Performing reactions involving aggressive organic solvents and pharmaceutical intermediates.	Non-stick surface prevents cross-batch contamination and facilitates easier validation cleaning.
Battery Material Research	Synthesis of novel electrolytes and cathode materials that require an inert environment.	Prevents moisture absorption and chemical interference with sensitive battery chemistries.
Trace Metal Analysis	Preparation and digestion of samples for ICP-MS or ICP-OES where background noise must be minimized.	Purity levels that exceed standard glass or low-grade plastic containers for PPT-level accuracy.
Catalyst Production	Synthesis of high-performance catalysts involving corrosive precursors and high-temperature cycles.	Maintains structural integrity and chemical purity throughout the entire reaction cycle.
Hydrothermal Synthesis	Use as a liner or vessel for controlled pressure and temperature reactions in aqueous solutions.	Reliable sealing and material stability under pressurized and heated conditions.
Specialized Chemical Storage	Long-term containment of ultrapure reagents and hazardous waste streams.	Prevents container degradation and maintains the high-purity status of the stored reagent.

Parameter	Specifications for PL-CP200
Model Identifier	PL-CP200
Primary Material	High-Purity Perfluoroalkoxy (PFA)
Standard Capacity	6 Liters (Customizable)
Customization Options	Fully customizable dimensions, port types, and lid configurations
Chemical Resistance	Universal (Resistant to HF, Aqua Regia, Strong Acids, Bases, and Solvents)
Operating Temperature	Customization-dependent (Supports wide thermal range)
Pressure Rating	Atmospheric to low-pressure (High-pressure variants available upon request)
Fitting Types	NPT, Flange, Compression, GL-threaded, or Custom CNC ports

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Parameter	**Specifications for PL-CP200**	
Sealing Mechanism	PFA-encapsulated O-rings or flat gaskets (Specified at order)	
Surface Finish	High-precision smooth finish to prevent particle adherence	
Transparency	Translucent/Semi-transparent for visual monitoring	
Fabrication Method	Precision CNC Machined and Welded	