

Custom Ptfе Reaction Tank Corrosion Resistant Fluoropolymer Chemical Processing Barrel 10L 20L 30L

Item Number: PL-CP71



Introduction

High-performance custom PTFE reaction tanks provide extreme corrosion resistance and chemical inertness for fluorochemical processing. Available in 10L, 20L, and 30L capacities, these bespoke laboratory barrels ensure pure environments for sensitive industrial applications and demanding laboratory workflows with custom configurations.

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Application	Description	Key Benefit
Fluorochemical Production	Synthesis and storage of aggressive fluorinated compounds and hydrofluoric acid reagents.	Absolute corrosion resistance and material longevity.
Semiconductor Etching	Handling of high-purity etching solutions and ultra-pure water (UPW) in cleanroom environments.	Zero trace metal leaching and sub-ppb purity maintenance.
Pharmaceutical Synthesis	Large-scale reactions involving aggressive polar solvents like acetonitrile and high-temp reflux.	Prevention of impurity ingress and seal erosion.
Trace Metal Analysis	Preparation and storage of samples for ICP-MS or fluorescence spectroscopy.	Eliminates background interference from container materials.
Battery Material Research	Testing and mixing of corrosive electrolytes and lithium-ion battery precursors.	Chemical stability against highly reactive electrochemical species.
Acid Digestion	Dissolution of mineral samples using concentrated nitric, perchloric, or sulfuric acids.	Safety and reliability under extreme chemical stress.
Petrochemical Processing	Storage and transport of catalysts and highly corrosive additives used in refining.	Reduced equipment downtime and maintenance costs.
Specialty Chemical Bulk Storage	Long-term containment of high-value, high-purity reagents that degrade standard plastics.	Preservation of reagent grade and shelf-life extension.

Feature	PL-CP71-10 Specification	PL-CP71-20 Specification	PL-CP71-30 Specification
Nominal Capacity	10 Liters	20 Liters	30 Liters
Material	High-Purity Virgin PTFE	High-Purity Virgin PTFE	High-Purity Virgin PTFE
Customization	Fully Customizable Dimensions	Fully Customizable Dimensions	Fully Customizable Dimensions
Wall Construction	Heavy-Wall CNC Machined	Heavy-Wall CNC Machined	Heavy-Wall CNC Machined
Closure Type	Precision Threaded PTFE Cap	Precision Threaded PTFE Cap	Precision Threaded PTFE Cap
Surface Finish	Crevice-free, smooth internal	Crevice-free, smooth internal	Crevice-free, smooth internal

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Temperature Range	-200°C to +260°C	-200°C to +260°C	-200°C to +260°C
Chemical Resistance	Universal (Except molten alkali)	Universal (Except molten alkali)	Universal (Except molten alkali)
Port Options	Optional (Custom CNC)	Optional (Custom CNC)	Optional (Custom CNC)
Handling Grips	Available upon request	Available upon request	Available upon request