

High Purity Customizable Ptfе Storage Tank Corrosion Resistant Chemical Reaction Vessel

Item Number: PL-CP27



Introduction

Secure your high-purity processes with our premium customizable PTFE storage tanks. These corrosion-resistant reaction vessels offer unmatched chemical inertness and extreme thermal stability for the most demanding industrial chemical processing and ultra-high-purity laboratory storage environments available globally today.

[Learn More](#)

Application	Description	Key Benefit
Semiconductor Etching	Storage and delivery of ultra-pure hydrofluoric acid and etching mixtures used in wafer processing.	Prevents metallic ion contamination critical for high-yield semiconductor manufacturing.
Pharmaceutical Synthesis	Serving as a primary reaction vessel for the production of APIs involving aggressive reagents and catalysts.	Maintains batch purity and resists corrosion from concentrated organic acids and solvents.
Trace Metal Analysis	Preparation and storage of standard solutions and samples for ICP-MS and environmental testing.	Lowest possible background levels for sensitive analytical measurements and reagent storage.
Battery Research	Handling and testing of corrosive electrolytes in advanced lithium-ion and flow battery development.	Chemical compatibility with reactive electrolytes and high thermal stability during cycling tests.
Fine Chemical Production	Batch processing of specialty chemicals where cross-contamination between different product runs must be eliminated.	Non-stick surface ensures fast, complete cleaning and eliminates residue carry-over.
Cryogenic Fluid Management	Containment of liquefied gases and biological samples at extremely low temperatures.	Retains flexibility and impact resistance at cryogenic temperatures where other materials become brittle.
Food and Flavor Processing	Mixing and storage of concentrated food acids, essential oils, and flavorings.	FDA-compliant material that does not impart taste or odor and resists bacterial growth.
Petrochemical Testing	High-temperature digestion of petroleum products and catalytic testing in acidic environments.	Withstands the combination of high heat and aggressive sulfur-containing compounds.

Parameter	Specification Details (Item: PL-CP27)
Material Options	Virgin PTFE, Modified PTFE (TFM), or High-Purity PFA
Base Model Number	PL-CP27 (Custom variants derived from base spec)
Capacity Range	100mL to 200L (Fully customizable volumes available)
Temperature Range	-200°C to +260°C (-328°F to +500°F)
Chemical Compatibility	Universal (pH 0-14); resistant to all acids, bases, and solvents
Internal Finish	Super-smooth, Ra < 0.4 μm (Custom polishing available)
Wall Thickness	Standard heavy-wall or bespoke thickness for pressure/vacuum resistance
Lid Design	Threaded cap, flanged lid, or custom CNC bolt-down configurations

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Fittings & Accessories	Optional dip tubes, sampling ports, thermowells, and PFA valves	
Color	Opaque White (PTFE) or Translucent (PFA)	
Compliance	Manufactured using materials meeting USP Class VI and FDA standards	