# High Purity Ptfe Reaction Vessel Polyfluortetraethylene Cylindrical Tank Petrochemical Reaction Container

## Item Number: PL-CP21

### Introduction

Explore our high-purity PTFE reaction vessels and cylindrical tanks, engineered for aggressive petrochemical applications. Featuring 10L, 30L, and 50L capacities with full CNC customization, these corrosion-resistant units ensure absolute chemical inertness and superior durability in demanding laboratory environments.

Learn More

| Application | Description | Key Benefit |
|---|---|---|
| Petrochemical Synthesis | Handling of aggressive catalysts and refined hydrocarbons at elevated temperatures. | Corrosion protection against acidic byproducts. |
| Pharmaceutical Manufacturing | Synthesis of Active Pharmaceutical Ingredients (APIs) requiring ultra-high purity. | Zero leaching and easy sterilization for batch purity. |
| Semiconductor Etching | Storage and containment of high-purity etching acids used in wafer fabrication. | Prevention of metallic ion contamination. |
| Acid Digestion | High-temperature dissolution of mineral samples using concentrated nitric or sulfuric acids. | Durable containment under extreme chemical attack. |
| Trace Element Analysis | Sample preparation for ICP-MS or AAS where background noise must be minimized. | Lowest possible detection limits due to material purity. |
| Food & Beverage Processing | Handling of acidic additives and flavoring agents in a non-toxic environment. | FDA-compliant material ensures consumer safety. |
| Hazardous Waste Containment | Long-term storage of volatile or corrosive chemical waste prior to neutralisation. | Exceptional leak prevention and structural longevity. |

| Parameter | Specification Details for PL-CP21 |
|---|---|
| **Model Series** | PL-CP21 (Customizable Series) |
| **Material Construction** | 100% Virgin PTFE (Polytetrafluoroethylene) |
| **Capacity Options** | 10L, 30L, 50L (Standard); Bespoke volumes available up to 200L |
| **Operating Temperature Range** | -200°C to +260°C |
| **Wall Thickness** | Customizable based on pressure requirements (Standard 5mm - 15mm) |
| **Internal Finish** | Ra ≤ 0.4 µm (Crevice-free high-purity finish) |
| **Port Configurations** | Custom CNC-machined inlets, outlets, and sensor ports |
| **Sealing Method** | Precision-threaded caps or high-pressure flanged closures |
| **Chemical Compatibility** | Universal (Except molten alkali metals and elemental fluorine) |
| **Dimensional Tolerance** | ±0.05mm (Via precision CNC machining) |