

# High Temperature Teflon Continuous Reaction System And Hf Resistant Three Neck Flask For Petrochemical Processing

Item Number: PL-CP355



## Introduction

Optimize your petrochemical laboratory with our high-temperature Teflon continuous reaction systems and HF-resistant flasks, featuring precision CNC fabrication for superior chemical resistance, unmatched thermal stability, and complete custom engineering to meet your most demanding industrial synthesis requirements today.

[Learn More](#)

Application	Description	Key Benefit
Petrochemical Catalyst Testing	Evaluating the performance of catalysts under high-temperature acidic conditions typical of refinery processes.	Prevents equipment corrosion from sulfur and halogen-containing compounds.
Semiconductor Wet Etching	Mixing and heating high-purity hydrofluoric acid solutions for silicon wafer processing.	Ensures zero metallic contamination and withstands aggressive etching agents.
Pharmaceutical Synthesis	Conducting organic reactions involving fluorinating agents or strong Lewis acids that attack standard glassware.	Enhances safety and prevents batch contamination from dissolved glass silica.
Environmental Trace Metal Analysis	Digestion of complex mineral or soil samples using concentrated acid mixtures for ICP-MS preparation.	High recovery rates of trace elements due to low surface adsorption and high purity.
Battery Electrolyte Research	Synthesizing and testing novel electrolyte formulations that are sensitive to moisture and reactive with glass.	Provides a moisture-barrier environment with total chemical compatibility with lithium salts.
Continuous Flow Chemistry	Acting as a primary reaction or mixing vessel within a larger automated chemical processing plant.	Reliable performance in 24/7 industrial cycles with minimal maintenance downtime.

Feature	Specification Details (Model: PL-CP355)
Material Construction	Virgin High-Purity PTFE / PFA (Customizable Based on Media)
Standard Vessel Capacity	500ml (Fully Customizable from 50ml to 20L+)
Configuration	Three-Neck Design (Standard and Custom Joint Sizes Available)
Thermal Operating Range	-200°C to +260°C (Continuous Service)
Chemical Resistance	Full Resistance to HF, Aqua Regia, Strong Alkalis, and Organic Solvents
Fabrication Method	5-Axis Precision CNC Machined Components
Port Interfaces	NPT, Flanged, or Ground Joint Connections (Bespoke Options Available)
Surface Finish	High-Purity Smooth Bore for Minimum Residue and Easy Cleaning
Customization Support	Full End-to-End Bespoke Design for Specialized Petrochemical Setups
Compliance	Manufactured from FDA-compliant and High-Purity Industrial Grade Fluoropolymers