

Heat Resistant Custom PTFE Laboratory Beaker For Hot Plate Heating And Trace Analysis

Item Number: PL-CP232



Introduction

High-performance custom PTFE beakers designed for reliable hot plate heating up to 260°C. Engineered with superior chemical resistance and anti-deformation properties, these 30ml laboratory vessels ensure high-purity trace analysis and long-term durability in demanding industrial chemical processing environments.

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Application	Description	Key Benefit
Trace Metal Digestion	Heating soil or tissue samples in concentrated nitric or hydrofluoric acid on hot plates.	Zero metal ion leaching ensures analytical accuracy at ppb levels.
Semiconductor Etching	Small-batch cleaning and etching of silicon wafers using aggressive chemical baths.	Resistance to HF and extreme purity prevent wafer contamination.
Pharmaceutical Synthesis	Refluxing or heating reactive intermediates in organic solvents at controlled temperatures.	Non-reactive surface prevents catalytic interference with sensitive reactions.
Petrochemical Testing	Evaporation of volatile compounds and acid number testing in heavy oil samples.	High thermal tolerance allows for safe processing of high-boiling point fluids.
Environmental Analysis	Preparation of water samples for ICP-MS through acid-assisted concentration.	Hydrophobic walls ensure 100% sample recovery and minimal carryover.
Battery Research	Testing electrolyte stability and electrode materials in corrosive electrochemical environments.	Withstands lithium salts and aggressive solvents used in energy storage R&D.

Attribute	Detailed Specification for PL-CP232 Series
Model Identification	PL-CP232
Standard Capacity	30ml (Custom volumes available upon request)
Material Composition	100% Virgin High-Molecular Weight PTFE
Thermal Resistance (Continuous)	Up to 200°C
Maximum Temperature Limit	260°C (500°F)
Chemical Resistance	Full range (pH 0-14); resistant to all common laboratory acids/solvents
Deformation Resistance	High-density machined base to prevent warping during heating
Bottom Profile	Ultra-flat machined surface for optimized hot plate contact
Fabrication Tolerance	Precision CNC machined to +/- 0.1mm
Customization Capability	Fully customizable dimensions, wall thickness, and geometry