

High Temperature Ptfе Reaction Flask 1000MI Single Neck Round And Flat Bottom Laboratory Bottle

Item Number: PL-CP219



Introduction

Premium PTFE reaction flasks designed for extreme chemical resistance and high-temperature laboratory synthesis. These 1000ml custom-engineered single-neck vessels offer unmatched purity, non-stick surfaces, and durability for semiconductor, pharmaceutical, and aggressive chemical research applications.

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Application	Description	Key Benefit
Trace Metal Analysis	Digestion of geological or environmental samples using aggressive mineral acids prior to ICP-MS analysis.	Zero ion leaching ensures background contamination remains at absolute minimum levels.
Semiconductor Processing	Cleaning and etching of silicon wafers or delicate components with hydrofluoric acid mixtures.	Total resistance to HF and other etching agents prevents vessel degradation.
Pharmaceutical Synthesis	Reaction vessel for the synthesis of high-purity active pharmaceutical ingredients (APIs) involving corrosive catalysts.	Non-stick surface ensures maximum recovery of expensive precursors and prevents cross-contamination.
Petrochemical Testing	High-temperature testing of fuels, lubricants, and additives under controlled laboratory conditions.	Thermal stability at 260°C allows for realistic testing of high-boiling point petroleum products.
Cryogenic Research	Storage and manipulation of biological or chemical samples at liquid nitrogen temperatures.	Material remains ductile and impact-resistant even at extreme sub-zero temperatures.
Electrochemical Cell Design	Custom housing for electrodes and electrolytes in advanced battery and fuel cell research.	Excellent electrical insulation properties and chemical stability in various electrolytic solutions.
Acid Digestion	High-pressure and high-temperature decomposition of samples in microwave or hydrothermal systems.	Robust wall construction safely handles the combined stresses of heat and chemical pressure.
Volatile Substance Storage	Secure containment of highly reactive or volatile reagents that degrade standard plastic or glass containers.	Superior sealing and material density minimize vapor loss and prevent external contamination.

Feature	Specification Details (Model PL-CP219)
Core Material	High-Purity Virgin PTFE (Polytetrafluoroethylene)
Nominal Capacity	1000ml (Custom volumes from 5ml available)
Body Geometry	Choice of Round Bottom or Flat Bottom
Neck Configuration	Single Neck (Reinforced CNC Machined)
Neck Interface	Custom Taper (e.g., 24/40, 29/32) or Threaded (GL-series)
Temperature Range	-200°C to +260°C (-328°F to +500°F)
Surface Roughness	< 0.1 µm Ra (Internal super-mirror finish)
Wall Thickness	Heavy-wall design (Customizable per application requirements)
Chemical Compatibility	Universal (Except molten alkali metals and elemental fluorine)
Compliance	FDA/USP Class VI Material Standards

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Fabrication Method	100% Precision CNC Machining from solid rod stock	