High Purity Custom Ptfe Beaker 5000Ml With Lid Hot Plate Heating Compatible High Temperature Chemical Labware

Item Number: PL-CP231

Introduction

Engineered for excellence, our custom 5000ml PTFE beakers provide superior chemical inertness and thermal stability up to 260°C. Perfect for hot plate heating, these bespoke vessels ensure high-purity results for aggressive industrial laboratory and chemical processing applications.

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Application	Description	Key Benefit
Semiconductor Etching	Handling of ultra-high purity acids and etching solutions for wafer processing.	Zero contamination and resistance to HF.
Trace Metal Analysis	Preparation of large-volume samples for ICP-MS or AAS without metal leaching.	Lowest possible detection limits.
Pilot-Scale Synthesis	Scaling up chemical reactions involving aggressive organic solvents and high heat.	Reliable scale-up with chemical safety.
Battery Material Research	Storage and mixing of electrolyte components and aggressive battery chemistries.	Long-term durability against electrolytes.
Environmental Testing	Digestion of soil and water samples using concentrated mineral acids.	High throughput and vessel longevity.
Pharmaceutical Processing	Synthesis of active pharmaceutical ingredients (APIs) in a sterile, non-reactive environment.	Compliance with high-purity standards.
Molten Salt Applications	Controlled heating of salts and corrosive flux materials at elevated temperatures.	Superior thermal and chemical endurance.

Specification	Details for PL-CP231
Model Identifier	PL-CP231
Standard Capacity	5000ml (5 Liters)
Material Construction	100% Virgin High-Purity PTFE
Customization Options	Fully Customizable (Dimensions, Spouts, Graduations)
Operating Temperature Range	-200°C to +260°C (-328°F to +500°F)
Heating Method	Compatible with Electric Hot Plates, Sand Baths, and Oil Baths
Lid Configuration	Optional matching PTFE lid (Flat, Plug, or Threaded types available)
Chemical Resistance	Resistant to all acids, alkalis, and organic solvents
Flammability Rating	UL94 V-0 (Self-extinguishing)
Manufacturing Process	Precision CNC Machined from Solid Fluoropolymer Stock
Base Design	Ultra-flat machined bottom for maximum thermal transfer
Wall Thickness	Standard 3mm-5mm (Customizable for vacuum or pressure use)