

High Temperature Resistant Thickened PTFE Beaker 2000MI For Chemical Processing And Laboratory Trace Analysis

Item Number: PL-CP237



Introduction

This thickened 2000ml PTFE beaker is engineered for high-temperature chemical resistance, withstanding hot plate heating up to 200°C without deformation. Our custom fluoropolymer vessels provide exceptional durability for demanding laboratory trace analysis and corrosive fluid processing applications.

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Application	Description	Key Benefit
Trace Metal Analysis	Preparation of high-purity samples for ICP-MS and ICP-OES analysis where contamination must be sub-ppb.	Ensures analytical accuracy by eliminating vessel-borne trace elements.
Semiconductor Etching	Handling of concentrated hydrofluoric and nitric acid mixtures used in wafer cleaning and etching processes.	Exceptional resistance to aggressive acids that dissolve glass and degrade metals.
Pharmaceutical Synthesis	Reaction vessel for complex organic synthesis involving reactive catalysts and high-temperature reflux.	Chemical inertness prevents side reactions and ensures the purity of the final API.
Petrochemical Testing	High-temperature digestion and blending of crude oil derivatives and aggressive lubricants.	Maintains structural integrity at 200°C under heavy chemical load.
Battery Material Research	Storage and mixing of electrolytes and precursor materials for lithium-ion and solid-state battery development.	Prevents moisture absorption and resists corrosive electrolyte components.
Metallurgical Digestion	Dissolution of mineral ores and metal alloys using strong mineral acids on a heating mantle or hot plate.	Durability under extreme pH and thermal conditions reduces operational overhead.

Parameter	Specification Details (Model PL-CP237)
Base Model Number	PL-CP237
Material Composition	100% High-Purity Virgin PTFE (Polytetrafluoroethylene)
Capacity	2000ml (Standard) / Fully Customizable Sizes Available
Wall Construction	Heavy-Duty Thickened Design for Thermal Stability
Operating Temperature	Continuous use up to 200°C (Max material threshold 260°C)
Heating Method Compatibility	Electric Hot Plate, Sand Bath, Oil Bath
Chemical Compatibility	Universal (pH 0-14); resistant to HF, H2SO4, HCl, HNO3
Fabrication Method	Precision CNC Machined from Isostatically Pressed Billets
Flammability Rating	UL94 V-0 (Self-extinguishing)
Customization Options	Dimensions, Volume, Handle Integration, Threaded Ports, Flat/Rounded Bottom