

Large Capacity Ptfе Reaction Bottle 2L Wide Mouth Fluoropolymer Extraction Vessel Compatible With Rotary Agitators

Item Number: PL-CP319



Introduction

High-performance 2L PTFE reaction bottles designed for extreme chemical resistance and compatibility with rotary shakers. Ideal for trace analysis and corrosive extractions, these wide-mouth vessels offer superior leak-proof sealing and end-to-end laboratory customization for demanding industrial processes.

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Application	Description	Key Benefit
Environmental Leachate Extraction	Used in TCLP and other regulatory leaching protocols to identify hazardous waste characteristics.	Total resistance to acidic leaching fluids and mechanical durability during 18-hour rotation cycles.
Trace Metal Analysis	Preparation and storage of high-purity samples for ICP-MS or AAS analysis in cleanroom environments.	Zero background contamination and ultra-low adsorption of metal ions onto vessel walls.
Semiconductor Chemical Prep	Handling of ultra-pure etchants and cleaning solutions used in wafer fabrication processes.	Maintains the extreme purity of electronic-grade chemicals without leaching silica or boron.
Pharmaceutical Formulation	Mixing and synthesis of volatile or highly reactive pharmaceutical intermediates and active ingredients.	Excellent compatibility with organic solvents and ease of sterilization for aseptic processes.
Battery Research	Testing of electrolyte stability and synthesis of cathode/anode materials in corrosive environments.	Resistance to lithium salts and high-temperature stability during electrochemical testing.
Pesticide Residue Analysis	Extraction of residues from agricultural products using organic solvents and intensive shaking.	Non-reactive surface ensures that delicate organic molecules are not degraded or absorbed.
Geochemical Digestion	Dissolution of mineral ores and soil samples using concentrated hydrofluoric or nitric acids.	Safely contains dangerous acids that would dissolve glass or compromise standard polymers.

Parameter	Specification for PL-CP319	Customization Options
Model Number	PL-CP319	Bespoke variants available
Nominal Capacity	2000ml (2L)	50ml to 50L custom volumes
Material Construction	High-Purity Virgin PTFE (F4)	PFA, TFM, or Modified PTFE options
Mouth Diameter	Wide-mouth industrial standard	Custom neck diameters and taper angles
Closure Type	PTFE Screw Cap (Heavy Duty)	Septum caps, GL45 threads, or flat seals
Temperature Range	-200°C to +260°C	Enhanced thermal stabilization available
Chemical Compatibility	Universal (except molten alkali metals)	Specialized liners for fluorine gas
Wall Thickness	Standard heavy-duty (Reinforced)	Variable thickness for pressure resistance
Compatible Equipment	FZ-4 Rotary Shakers and equivalents	Custom adapters for specific shaker brands
Internal Finish	< 0.5µm Ra (Crevice-free)	Ultra-mirror polishing available

Application	Description	Key Benefit
Parameter	Specification for PL-CP319	Customization Options
Dimensions	Standard 2L Form Factor	Fully customizable height and width profiles
Handling Features	Integrated ergonomic grips	Optional lifting handles or fluted sides