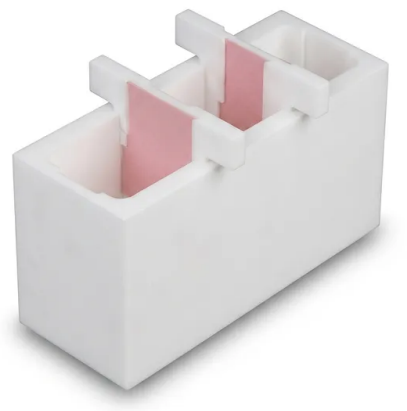
Corrosion Resistant Ptfe Electrochemical Cell For New Energy Research Inert Insulating Customizable Lab Reaction Vessel

Item Number: PL-CP154



Introduction

Professional PTFE electrochemical cell designed for new energy research featuring exceptional chemical inertness and corrosion resistance. Available in 400ml and 1000ml capacities with full customization for advanced battery testing and high-purity trace analysis delivering reliable industrial performance and extreme durability.

Learn More

Application	Description	Key Benefit
Lithium Battery R&D	Testing of novel electrolyte formulations and electrode materials in a zero-contamination environment.	Prevents trace metal contamination
Hydrogen Fuel Cell Testing	Analysis of proton exchange membrane (PEM) components under acidic conditions.	Resistance to hydrofluoric acid
Semiconductor Wet Processing	High-purity etching and cleaning process simulation for wafer fabrication.	Chemical stability under plasma exposure
Corrosion Science	Long-term immersion and electrochemical impedance spectroscopy (EIS) of metal alloys.	Durable against aggressive oxidizers
Trace Metal Analysis	Digestion and reaction vessel for samples requiring extremely low background interference.	Minimal ion leaching
Supercapacitor Development	Evaluation of high-surface-area carbon materials in organic and aqueous electrolytes.	Wide voltage window stability
Molten Salt Chemistry	High-temperature electrochemical reactions in non-aqueous, highly corrosive environments.	Thermal and chemical robustness

Parameter	PL-CP154-400 (Standard)	PL-CP154-1000 (Standard)	Custom Specification
Nominal Capacity	400ml	1000ml	Per Client Requirement
Body Material	High-Purity Virgin PTFE	High-Purity Virgin PTFE	Filled PTFE available
Specific Gravity	2.10 - 2.20 g/cc	2.10 - 2.20 g/cc	Material dependent
Melting Point	621°F / 327°C	621°F / 327°C	Fixed for PTFE
Heat Deflection Temp	248°F / 120°C	248°F / 120°C	Material dependent
Hardness (Shore D)	55D	55D	Customizable surface finish
Tensile Strength	2990 - 4970 psi	2990 - 4970 psi	High-strength variants
Dielectric Constant	2.1	2.1	Ultra-insulating
Water Absorption	0.01% (24 hrs)	0.01% (24 hrs)	High-purity standard
Coefficient of Friction	0.110	0.110	Low-adhesion surface
Electrode Ports	Customizable	Customizable	CNC Machined Threading

Application	Description	Key Benefit	
Parameter	**PL-CP154-400 (Standard)**	**PL-CP154-1000 (Standard)**	**Custom Specification**
Sealing Mechanism	O-ring / Gasket Seal	O-ring / Gasket Seal	High-vacuum options