

High Purity Ptfе Pfa Plastic Crucible For Corrosion Resistant Acid Digestion And Trace Analysis

Item Number: PL-CP85



Introduction

High-purity PTFE PFA plastic crucibles designed for trace analysis and acid digestion. Offering extreme corrosion resistance and low background levels, these heat-resistant vessels withstand 250°C for reliable sample preparation in demanding laboratory and industrial environments worldwide.

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Application	Description	Key Benefit
Environmental Soil Digestion	Breaking down soil and sediment samples using concentrated acids for heavy metal analysis.	Total resistance to HF and low blank levels for accurate Pb/Cd detection.
Semiconductor Grade Purity	Handling and storing high-purity etching chemicals and cleaning reagents for wafer processing.	Prevents metallic ion contamination in sub-ppb environments.
Pharmaceutical Trace Metals	Sample preparation for USP <232>/<233> elemental impurities testing in drug products.	Ensures compliance with rigorous regulatory purity standards.
Geochemical Rock Analysis	Dissolution of silicate rock samples using hydrofluoric acid for rare earth element quantification.	Safe handling of HF at elevated temperatures without vessel degradation.
Petrochemical Catalyst Testing	Digestion of spent catalysts to determine precious metal loading and impurity profiles.	Durable enough for repeated high-temperature cycles with aggressive solvents.
Food Safety Monitoring	Analyzing agricultural products for toxic elements like arsenic and mercury after microwave or hot block digestion.	Non-stick surface ensures maximum sample recovery for volatile elements.

Specification	Details for Item PL-CP85
Material Composition	High-Purity Polytetrafluoroethylene (PTFE) / Perfluoroalkoxy (PFA)
Standard Capacity	50ml (Customizable to any volume requirement)
Maximum Service Temperature	250°C (482°F)
Chemical Resistance	Universal (Except molten alkali metals and fluorine gas)
Manufacturing Process	Precision CNC Machined or Isostatic Molding (Custom options available)
Surface Finish	High-polish low-porosity surface (Ra < 0.4µm)
Lid Configuration	Standard match or custom screw-top/vented designs
Contamination Level	Trace metal grade (sub-ppb potential after cleaning)
Customization	Bespoke dimensions, specialized shapes, and bulk orders available