

High Purity Ptfе Digestion Tubes And Custom Centrifuge Tubes 100MI For Trace Analysis And Chemical Digestion

Item Number: PL-CP217



Introduction

Engineering-grade custom PTFE digestion and centrifuge tubes provide extreme chemical resistance and ultra-low trace element leaching for demanding lab applications. Ideal for 100ml sample prep requiring high thermal stability and total inertness in aggressive acid environments and complex workflows.

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Application	Description	Key Benefit
Environmental Trace Analysis	Digestion of soil and sediment samples using concentrated nitric and hydrofluoric acids to detect heavy metals.	Zero leaching ensures accurate ppb/ppt detection levels.
Pharmaceutical Quality Control	Preparation of active pharmaceutical ingredients (APIs) for elemental impurity testing according to USP standards.	Total chemical inertness prevents interference with complex organic matrices.
Metallurgical Testing	Dissolution of ore samples and precious metal alloys using aqua regia at high temperatures.	Resists structural deformation in highly corrosive, high-heat environments.
Battery Research	Handling and separation of corrosive electrolytes and lithium-ion battery precursors during material testing.	Prevents contamination of high-purity battery materials during centrifugation.
Petrochemical Analysis	Mineralization of heavy crude oil and catalyst samples for sulfur and nickel content determination.	High pressure and temperature tolerance during microwave-assisted digestion.
Food Safety Testing	Digestion of food products for the detection of pesticide residues and toxic mineral contaminants.	Anti-adhesive walls ensure complete sample transfer for better recovery rates.
Semiconductor Manufacturing	High-purity cleaning and sample preparation for wafer etching chemicals and ultrapure water monitoring.	Maintains the integrity of ultra-trace analysis results without plasticizer interference.

Specification Category	Parameter Detail (Model Series PL-CP217)
Core Material	High-Purity Polytetrafluoroethylene (PTFE)
Manufacturing Process	Precision CNC Machined from Solid Fluoropolymer Stock
Standard Volume	100ml (Fully customizable upon request)
Operating Temperature	-200°C to +260°C (Continuous Duty)
Chemical Compatibility	Resists all acids, bases, and organic solvents (pH 0-14)
Closure Type	Custom Threaded Cap / Plug Seal (Customizable)
Internal Finish	Mirror-smooth, hydrophobic anti-stick surface
Base Configuration	Round bottom, Conical, or Flat (Bespoke customization)
Wall Thickness	Standard or Heavy-Duty options available for pressure applications
Compliance	Traceability and material purity certification available