

High Pressure Ptfе Digestion Vessel Inner Cup Holder Custom Corrosion Resistant Low Background Teflon

Item Number: PL-CP262



Introduction

Optimize trace analysis with custom PTFE high pressure digestion vessel cup holders. These corrosion resistant low background laboratory components provide exceptional chemical purity and precision fit for demanding sample preparation in metal free environments and high purity industrial laboratory workflows.

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Application	Description	Key Benefit
Environmental Trace Metal Analysis	Digestion of soil, sediment, and wastewater samples using concentrated nitric or hydrofluoric acid.	Ensures no heavy metal contamination from the holder, providing accurate results at PPT levels.
Geochemical Sample Preparation	Decomposition of silicate-based ores and rock samples using high-pressure hydrothermal methods.	Resists the aggressive nature of mineral acids while maintaining structural integrity under heat.
Semiconductor High-Purity Testing	Analysis of photoresists, wafers, and processing chemicals for ultra-trace elemental impurities.	Provides the metal-free environment required to prevent interference with sensitive semiconductor metrics.
Pharmaceutical Quality Control	Digestion of active pharmaceutical ingredients (APIs) and excipients according to USP <232>/<233> guidelines.	Guarantees compliance with strict purity standards and ensures reliable repeatability in regulated workflows.
Metallurgical Research	Dissolution of alloy samples and specialty metals for detailed elemental composition characterization.	Maintains a stable environment for complex acid mixtures that would corrode stainless steel or glass components.

Food Safety Testing	Processing of agricultural products and food samples to monitor for toxic heavy metals like lead, arsenic, and cadmium.	Facilitates complete digestion while preventing cross-sample contamination in high-throughput labs.
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Attribute	Specification Detail for PL-CP262
Product Item Number	PL-CP262
Base Material	Ultra-High Purity Virgin PTFE (Teflon)
Manufacturing Process	Precision Custom CNC Machining
Internal Capacity Support	Optimized for 50ml Inner Cups (Customizable)
Surface Finish	High-Grade Smooth Machined (Ra < 0.8µm)
Operating Temperature Range	-200°C to +260°C (Application dependent)
Chemical Resistance	Universal (Except molten alkali metals, gaseous fluorine)
Background Interference	Ultra-low blank values for trace metal analysis
Customization Scope	Dimensions, wall thickness, base geometry, and venting features
Compliance	Material grades meet FDA and high-purity industrial standards