

# High Purity Ptfе Microwave Digestion Vessels For 44 Position Systems Trace Analysis Acid Digestion And Evaporation

Item Number: PL-CP307



## Introduction

High-performance PTFE microwave digestion tubes designed for 44-position systems. These ultra-pure fluoropolymer vessels ensure zero contamination during trace analysis, acid digestion, and evaporation processes, expertly engineered for durability and precise fit in advanced laboratory microwave instruments.

[Learn More](#)

Application	Description	Key Benefit
<b>Environmental Soil Analysis</b>	Digesting complex soil and sediment matrices for heavy metal detection using EPA-compliant methods.	Ensures complete dissolution of refractory minerals without contamination.
<b>Pharmaceutical Trace Metal Testing</b>	Preparing active pharmaceutical ingredients (APIs) and excipients for elemental impurity testing (USP <232>/<233>).	Ultra-low blank values for reliable compliance with international pharmacopeia standards.
<b>Food &amp; Beverage Safety</b>	Dissolving food samples to analyze for toxic elements like Lead, Arsenic, and Cadmium.	High-throughput 44-position compatibility maximizes lab productivity.
<b>Geological &amp; Mining Exploration</b>	Digesting ore and mineral samples with hydrofluoric acid combinations for mineralogical assay.	Exceptional resistance to HF and high-temperature mineral acids.
<b>Petrochemical Catalyst Recovery</b>	Processing spent catalysts and petroleum products to quantify precious metal content.	Robust construction survives the high temperatures needed for oil-based matrices.
<b>Clinical &amp; Biological Research</b>	Digestion of blood, hair, or tissue samples for forensic or nutritional trace element studies.	Minimizes sample loss and prevents carryover between sensitive biological runs.
<b>Acid Removal (Evaporation)</b>	Evaporating excess acid after digestion to prepare samples for final dilution and analysis.	Optimized vessel neck design promotes efficient vapor removal.

Feature	Specification Detail for PL-CP307
<b>Product Identifier</b>	PL-CP307 Series (44-Position Compatible)
<b>Base Material</b>	High-Purity Virgin PTFE / Modified TFM / PFA
<b>Manufacturing Method</b>	High-Precision CNC Machining
<b>Vessel Capacity</b>	<b>Customizable</b> (Tailored to specific volume requirements)
<b>Dimensions (OD/Height)</b>	<b>Customizable</b> (Built to match instrument manufacturer specs)
<b>Wall Thickness</b>	<b>Customizable</b> (Reinforced for high-pressure applications)
<b>Compatibility</b>	44-Position Microwave Digestion Systems / Heating Blocks
<b>Operating Temperature</b>	Up to 260°C (Material dependent)
<b>Chemical Resistance</b>	Universal resistance to all common laboratory acids and solvents
<b>Surface Finish</b>	Ultra-smooth, low-porosity interior
<b>Customization Options</b>	Bespoke heights, diameters, and cap configurations available