

# High Purity Ptfе Pfa Microwave Digestion Vessels Custom Acid Digestion Tanks For Laboratory Sample Preparation

Item Number: PL-CP391



## Introduction

Discover high-purity PTFE and PFA microwave digestion vessels engineered for extreme chemical resistance and thermal stability. Our custom CNC-machined tanks ensure precise compatibility with all major microwave systems, delivering reliable results for critical trace element analysis and sample preparation.

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Application	Description	Key Benefit
Environmental Analysis	Digestion of soil, sediment, and wastewater samples for heavy metal detection.	Ultra-low background levels for accurate ppb-level results.
Pharmaceutical Quality Control	Preparation of active pharmaceutical ingredients (APIs) and excipients for elemental impurity testing.	Compliance with USP <232>/<233> standards through clean digestion.
Petrochemical Testing	Dissolution of catalysts and crude oil derivatives for additive and impurity analysis.	High-pressure resistance for difficult-to-digest organic matrices.
Geochemical Exploration	Digestion of ore, minerals, and rock samples using aqua regia or hydrofluoric acid.	Total resistance to HF and other aggressive mineral acids.
Food and Beverage Safety	Decomposition of complex food matrices (fats, proteins, sugars) for nutritional and safety labeling.	Fast digestion times with complete recovery of volatile elements.
Semiconductor Grade Chemicals	Trace metal analysis of high-purity acids and photoresists used in wafer fabrication.	Cleanroom-compatible materials prevent cross-contamination.
Biological Tissue Digestion	Preparation of plant or animal tissues for metabolic and toxicological studies.	Efficient decomposition of organic matter at controlled temperatures.

Parameter	Specifications for PL-CP391
Product Item Number	PL-CP391
Material Options	High-purity TFM (Modified PTFE), PTFE, PFA, or FEP
Volume Capacity	Fully customizable to client specifications (e.g., 55ml and others)
Design Type	Domestic and international compatible microwave digestion tanks
Customization Capability	All models and dimensions can be custom-fabricated to order
Pressure Rating	Tailored to specific application requirements and OEM standards
Maximum Operating Temperature	Dependent on material selection (typically up to 260°C for TFM)
Surface Roughness (Ra)	Precision machined for ultra-low friction and sample adhesion
Compatibility	Universal design compatibility with major microwave digestion rotors