

# Corrosion Resistant PTFE Digestion Tubes For Graphite Block Systems With Acid Reflux Caps Custom Dimensions

Item Number: PL-CP302



## Introduction

Engineered for trace analysis, these high-purity PTFE digestion tubes feature customizable dimensions and reflux caps for graphite digestion systems. Ensure contamination-free acid evaporation and superior chemical resistance in demanding laboratory environments with our bespoke fluoropolymer solutions.

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Application	Description	Key Benefit
Trace Metal Analysis	Digestion of environmental samples such as soil and sediment using concentrated HNO <sub>3</sub> and HF.	Zero background interference for ICP-MS and ICP-OES measurements.
Pharmaceutical Quality Control	Preparation of active pharmaceutical ingredients (APIs) for elemental impurity testing per USP standards.	High purity material prevents the introduction of exogenous contaminants.
Geochemical Prospecting	Dissolution of rock and mineral ores for mineralogical assessment and rare earth element quantification.	Exceptional resistance to hydrofluoric acid used for silicate matrix breakdown.
Petrochemical Testing	Digestion of heavy oil fractions and catalyst residues for sulfur and metal content analysis.	Robust performance under high-temperature organic solvent and acid exposure.
Wastewater Monitoring	Processing of industrial discharge samples to monitor compliance with environmental protection regulations.	Durable construction supports high-volume daily testing cycles without degradation.
Semiconductor Grade Processing	Cleaning and preparation of silicon wafers or high-purity electronic components.	Ultra-low leaching levels meet the rigorous requirements of the microelectronics industry.

Specification Category	Parameter Detail	PL-CP302 Capability
<b>Model Identification</b>	Primary Item Number	PL-CP302
<b>Material Construction</b>	Primary Vessel Material	High-Purity Virgin PTFE
	Secondary Component Material	PFA (available for transparent reflux caps)
<b>Dimensional Customization</b>	Outer Diameter (OD)	Fully Customizable based on Graphite Block Hole Size
	Inner Diameter (ID)	Customizable for Wall Thickness Requirements
	Total Height	Bespoke Height to fit Digestion Chambers
<b>Capacity Options</b>	Nominal Volume	Custom (Commonly 10ml, 25ml, 50ml, 100ml)
<b>Design Features</b>	Bottom Configuration	Flat, Round, or Conical Bottom Available
	Reflux Cap Design	Integrated Reflux, Plug, or Threaded Options
	Graduation Marks	Custom Laser-Etched or Machined Volume Markers
<b>Performance Metrics</b>	Continuous Operating Temperature	-200°C to +260°C
	Chemical Resistance	Universal (Except molten alkali metals and fluorine gas)

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Specification Category	Parameter Detail	PL-CP302 Capability
	Manufacturing Process	ISO-certified CNC Precision Machining