

High Performance Tfm Microwave Digestion Vessel Rack 15 Position Customizable Sample Preparation Support

Item Number: PL-CP353



Introduction

Optimize laboratory throughput with this custom TFM microwave digestion vessel rack designed for high pressure sample preparation featuring superior chemical resistance and thermal stability for precise trace analysis across demanding industrial and research workflows.

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Application	Description	Key Benefit
Environmental Soil Analysis	Digestion of soil and sediment samples using concentrated acids for heavy metal detection.	High recovery of volatile elements like Mercury and Lead.
Pharmaceutical Testing	Preparation of Active Pharmaceutical Ingredients (APIs) for elemental impurity testing per USP guidelines.	Eliminates risk of contamination from the vessel support system.
Food Safety Screening	Mineralization of complex food matrices to detect toxic metals and nutritional minerals.	High-throughput processing for large-volume batch testing.
Petrochemical Analysis	Decomposition of heavy oils and catalysts to determine trace metal content.	Withstands the high pressures of organic sample digestion.
Geological Surveying	Digestion of mineral ores and rock samples for rare earth element quantification.	Exceptional resistance to Hydrofluoric acid mixtures.
Polymer Material Testing	Breaking down plastic and rubber samples for additive and contaminant analysis.	Maintains structural integrity under prolonged heating.
Clinical Bio-analysis	Processing of blood or tissue samples for toxicological studies and trace element research.	Ensures sample purity for high-sensitivity ICP-MS detection.

Feature	Specification Details (Model: PL-CP353)
Material Composition	Premium TFM (Modified Polytetrafluoroethylene)
Configuration	15-Position High-Throughput Layout
Fabrication Method	Precision Custom CNC Machining
Chemical Compatibility	Universal resistance to strong acids, bases, and organic solvents
Operating Temperature Range	Customizable based on specific digestion protocol requirements
Pressure Rating	Engineered to support high-pressure vessel operations
Dimensions	Fully customizable to match original microwave cavity dimensions
Surface Finish	High-purity polished finish for minimal adsorption
Compatibility	Custom matched to fit original manufacturer digestion vessels