# Custom High Purity Tfm Microwave Digestion Vessel 100Ml For Analytical Laboratory Sample Preparation

**Item Number: PL-CP367**

## Introduction

Premium 100ml TFM microwave digestion vessels designed for extreme chemical resistance and high pressure applications. These custom engineered laboratory components offer seamless compatibility with specialized digestion systems to ensure consistent sample preparation results in demanding analytical chemistry environments.

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| Application | Description | Key Benefit |
|---|---|---|
| Environmental Trace Analysis | Digestion of soil, sediment, and wastewater samples for ICP-MS analysis. | Lowest trace metal background for accurate ppb/ppt detection. |
| Pharmaceutical Quality Control | Preparation of active pharmaceutical ingredients (APIs) for heavy metal testing. | Compliance with strict regulatory standards for purity and recovery. |
| Metallurgical & Mining | Dissolution of mineral ores, concentrates, and alloy samples in concentrated acids. | Resilience against aggressive acid mixtures and high temperatures. |
| Food Safety Testing | Decomposition of organic food matrices to monitor for contaminants like Arsenic or Lead. | Total mineralization of fats and proteins for clear analytical solutions. |
| Petrochemical Analysis | Digestion of polymers, lubricants, and crude oil samples for catalyst residue testing. | High pressure resistance for the breakdown of long-chain hydrocarbons. |
| Forensic Science | Precise preparation of small, sensitive evidence samples for toxicology screens. | High recovery rates and protection against cross-contamination. |
| Battery Material Research | Dissolution of cathode and anode materials for stoichiometric verification. | Durable performance in high-cycle testing environments. |

| Parameter | Detail |
|---|---|
| **Product Item Number** | PL-CP367 |
| **Material** | TFM (Modified Polytetrafluoroethylene) |
| **Nominal Volume** | 100ml |
| **Design Type** | Fully Customizable / Bespoke Design |
| **Manufacturing Process** | Precision CNC Machining |
| **Compatibility** | Engineered to adapt to XT-MUI type microwave systems |
| **Chemical Resistance** | Full resistance to HNO3, HCl, HF, H2SO4, H2O2 |
| **Max. Temperature** | Dependent on custom configuration (Typical TFM limits apply) |
| **Surface Finish** | High-precision polished internal and external surfaces |
| **Closure System** | Customizable cap and seal interface options |
| **Trace Metal Purity** | High-purity grade for ultra-trace analysis |