High Purity Pfa Nmr Sample Tubes With Ptfe Caps Corrosion Resistant Fluoropolymer Labware

Item Number: PL-CP42

Introduction

Secure your trace analysis with high-purity PFA NMR tubes and precision-machined PTFE caps. Engineered for extreme corrosion resistance and thermal stability, these customizable fluoropolymer components ensure zero-contamination sample handling in demanding laboratory environments.

Learn More

Application	Description	Key Benefit
NMR Spectroscopy	Analysis of complex molecular structures using sensitive NMR probes where glass might cause interference.	High signal-to-noise ratio and zero ion leaching.
Trace Metal Analysis	Handling and storage of high-purity acids and reagents for ICP-MS or ICP-OES sample preparation.	Eliminates background contamination from the vessel material.
Semiconductor Processing	Storage and transport of ultra-pure wet chemicals used in wafer cleaning and etching processes.	Maintains chemical grade integrity under harsh conditions.
Pharmaceutical Synthesis	Reaction monitoring and sample storage for drug development involving corrosive precursors.	Excellent resistance to organic solvents and reactive intermediates.
Environmental Testing	Preparation of environmental samples containing volatile organic compounds (VOCs) or heavy metals.	Superior sealing prevents loss of volatile analytes.
Hydrofluoric Acid Digestion	Analytical procedures involving HF where traditional borosilicate glass tubes would be etched or destroyed.	Total material resistance to fluorine-based acids.
Cryogenic Research	Handling of samples at extremely low temperatures for physical chemistry and materials science.	Maintains flexibility and seal integrity at sub-zero temperatures.

Parameter	Specification Detail (PL-CP42 Series)
Model Identifier	PL-CP42
Tube Material	High-Purity PFA (Perfluoroalkoxy)
Cap Material	Polytetrafluoroethylene (PTFE)
Standard Outer Diameter (OD)	5.0 mm (Customizable upon request)
Standard Inner Diameter (ID)	4.0 mm (Customizable upon request)
Maximum Operating Temperature	+260°C (500°F)
Minimum Operating Temperature	-200°C (-328°F)
Chemical Resistance	Universal resistance (except molten alkali metals and elemental fluorine)
Fabrication Method	Precision CNC Machining & Specialized Extrusion
Customization Options	Length, diameter, wall thickness, and specialized cap venting

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Parameter	**Specification Detail (PL-CP42 Series)**	
Trace Element Profile	Parts-per-billion (ppb) to parts-per-trillion (ppt) purity levels	