

Corrosion Resistant Pfa Nmr Tubes With Ptfе Caps For High Temperature Trace Analysis Applications

Item Number: PL-CP407



Introduction

Premium PFA NMR tubes featuring precision-engineered PTFE caps designed for superior chemical resistance and high-temperature stability. Our custom-fabricated solutions ensure zero contamination for sensitive trace analysis and aggressive chemical research across all major industrial laboratory sectors.

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Application	Description	Key Benefit
NMR Spectroscopy	Analysis of aggressive or high-purity samples where glass silica interference must be avoided.	Zero background interference from glass-related ions.
Semiconductor Processing	Handling of high-purity acids and etching solutions used in wafer cleaning and fabrication.	Prevents metallic contamination at the parts-per-trillion level.
Pharmaceutical Research	Storage and analysis of complex organic compounds and reactive intermediate metabolites.	Maintains sample stability without surface adsorption.
Petrochemical Analysis	Testing of crude oil derivatives and corrosive catalysts under elevated thermal conditions.	High temperature resistance and chemical durability.
Trace Element Analysis	Sample preparation and storage for ICP-MS and other high-sensitivity analytical techniques.	Eliminates leaching of boron, sodium, and other trace elements.
Battery Research	Testing of aggressive electrolytes and molten salts in energy storage development.	Resists degradation from highly reactive chemical environments.
Environmental Monitoring	Analysis of soil and water samples containing volatile organic compounds (VOCs).	Exceptional seal integrity prevents loss of volatiles.

Parameter	Specification Detail	Model Identification
Model Identifier	Standard Configuration	PL-CP407
Tube Material	High-Purity Perfluoroalkoxy (PFA)	PL-CP407
Cap Material	Polytetrafluoroethylene (PTFE)	PL-CP407
Internal Diameter (ID)	4 mm	PL-CP407
Outer Diameter (OD)	5 mm	PL-CP407
Temperature Range	-200°C to +260°C	PL-CP407
Chemical Resistance	Universal (Except molten alkali metals)	PL-CP407
Fabrication Method	Precision CNC Machining & Extrusion	PL-CP407
Customization	Available (Dimensions, Caps, Fittings)	PL-CP407
Surface Finish	Ultra-Smooth, Low-Friction	PL-CP407
Trace Metal Content	< 0.1 ppb (Standard Grade)	PL-CP407
Pressure Rating	Dependent on wall thickness and temperature	Customizable

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Parameter	Specification Detail	Model Identification
Length	Standard and Bespoke Lengths Available	Customizable