High Purity Pfa Ion Exchange Column Corrosion Resistant High Purity Chromatography Glass Alternative Customizable Vessel

Item Number: PL-CP361

Introduction

This high-purity PFA ion exchange column provides exceptional chemical resistance and transparency for trace analysis. A customizable glass alternative, it ensures zero contamination for semiconductor and pharmaceutical laboratories requiring precise, bespoke fluid separation solutions and ultimate durability.

Learn More

Application	Description	Key Benefit
Trace Metal Analysis	Separation and concentration of metal ions in environmental or clinical samples using ion exchange resins.	Eliminates background contamination from the vessel itself, ensuring accurate PPB/PPT level detection.
Semiconductor Grade Chemicals	Purification of photoresists, etchants, and solvents used in microchip fabrication processes.	Maintains the extreme purity levels required to prevent defects in semiconductor manufacturing.
Pharmaceutical Extraction	Isolation of active pharmaceutical ingredients (APIs) through column chromatography in sterile environments.	Superior chemical resistance to organic solvents and ease of sterilization at high temperatures.
Radioactive Isotope Separation	Processing and separation of isotopes in nuclear medicine and research facilities.	Exceptional radiation resistance and leak-proof reliability for handling hazardous materials.
Hydrofluoric Acid Processing	Chromatography and fluid handling involving concentrated HF, which aggressively attacks glass.	Total resistance to HF, allowing for safe and consistent separation processes where glass would fail.
High-Purity Reagent Production	Refining and filtering high-purity reagents for laboratory use and industrial chemical synthesis.	Minimizes leaching of impurities, ensuring the final reagent meets strict quality standards.
Geochemical Research	Dissolution and separation of mineral samples for geological dating and isotopic fingerprinting.	Withstands the aggressive acid digestion processes required for mineral analysis.

Feature	Specification Details for PL-CP361 Series
Base Material	High-Purity Perfluoroalkoxy (PFA)
Reference Dimensions	30mm Inner Diameter (ID) x 36mm Outer Diameter (OD)
Customization Range	Fully Customizable Lengths, Diameters, and Wall Thicknesses
Temperature Range	-200°C to +260°C (-328°F to +500°F)
Chemical Resistance	Acids (including HF), Bases, Organic Solvents, Oxidizing Agents
Surface Finish	High-precision CNC Machined Interior/Exterior
Transparency	High (Visual Monitoring Capable)
Fitting Interfaces	Customizable (NPT, Flared, Compression, or Bespoke CNC Threads)
Leaching Profile	Negligible Metal Ion and Organic Carbon Leaching
Manufacturing Method	End-to-end CNC Fabrication and Precision Assembly