

High Purity Virgin Ptfе Syringe 20MI Chemical Resistant Liquid Handling For Syringe Pumps And Pfa Tubing Integration

Item Number: PL-CP100



Introduction

Precision engineered 20ml PTFE syringe manufactured from 100% virgin resin for superior chemical inertness. Fully compatible with automated syringe pumps and PFA extension tubing, ensuring contamination-free fluid transfer and ultra-trace analysis in demanding industrial laboratory environments.

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Application	Description	Key Benefit
Semiconductor Etching	Handling of high-purity hydrofluoric acid and photoresist strippers during wafer processing.	Prevents metal ion contamination.
Pharmaceutical Synthesis	Precision dosing of aggressive catalysts and reagents in sterile drug manufacturing environments.	Superior chemical inertness and purity.
Trace Metal Analysis	Preparation of standards and samples for ICP-MS and ICP-OES where ultra-low detection limits are required.	Eliminates background contamination.
Battery Research	Transferring corrosive electrolytes and lithium salts in electrochemical cell testing and development.	Material stability against electrolytes.
Petrochemical Testing	Analysis of high-temperature hydrocarbons and acidic crude oil components in refinery laboratories.	High thermal and chemical resistance.
Environmental Monitoring	Sampling of volatile organic compounds (VOCs) and hazardous pollutants in wastewater analysis.	Non-reactive fluid path for accuracy.
Microfluidic Infusion	Delivering precise microliter volumes of reagents into automated micro-reactors and lab-on-a-chip systems.	Smooth, pulse-free automated delivery.
Nuclear Medicine	Handling of radioactive isotopes and aggressive cleaning agents in radiopharmaceutical production.	Radiation resistance and ease of cleaning.

Property	Specification Value (Model: PL-CP100)
Core Material	High-Purity Virgin PTFE
Standard Capacity	20ml (Custom volumes available)
Specific Gravity	2.10 - 2.20 g/cc
Melting Point	621°F / 327°C
Heat Deflection Temperature	248°F / 120°C
Shore Hardness	55D
Coefficient of Friction	0.110 (Static)
Tensile Strength	2990 - 4970 psi
Flexural Strength	2490 psi
Water Absorption (24h)	0.01%
Dielectric Constant	2.1
Compatibility	Syringe Pumps, PFA Extension Tubing, Luer/Threaded Connectors

Application	Description	Key Benefit
Property	Specification Value (Model: PL-CP100)	
Manufacturing Method	Precision CNC Machining	
Customization	Available for dimensions, connections, and volume	