

High Purity Ptfе Syringe 20MI Virgin Fluoropolymer Syringe Pump Compatible Chemical Resistant Sample Injection Tool

Item Number: PL-CP255



Introduction

Premium 20ml PTFE syringe crafted from 100% virgin material for extreme chemical resistance and syringe pump compatibility. Ideal for high-purity trace analysis and corrosive fluid handling in advanced laboratory research and industrial manufacturing environments.

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Application	Description	Key Benefit
Semiconductor Processing	Precise delivery of ultra-pure etching acids and cleaning solvents used in wafer fabrication.	Zero trace metal contamination.
Pharmaceutical Research	Handling of reactive intermediates and aggressive solvents during drug synthesis and formulation.	Chemical purity and safety.
Trace Metal Analysis	Preparation and injection of samples for ICP-MS and AAS where any leaching would invalidate results.	Ultra-low detection limits.
Battery Technology	Injection of corrosive electrolytes and lithium-ion components into test cells and prototypes.	Corrosion resistance and seal integrity.
Environmental Monitoring	Sampling and testing of groundwater and industrial effluent for volatile organic compounds (VOCs).	Non-reactive surface properties.
Automated Flow Chemistry	Integration into micro-channel reactors for the continuous synthesis of specialized chemical compounds.	Precise flow rate control.
Petrochemical Testing	Analysis of high-temperature crude oil derivatives and aggressive additives in refinery labs.	High thermal and chemical stability.

Parameter	Value / Detail
Model Number	PL-CP255
Nominal Volume	20ml (Custom volumes available)
Material	100% Virgin PTFE
Compatibility	Syringe Pumps, FEP Extension Tubing
Melting Point	327°C (621°F)
Specific Gravity	2.10 - 2.20 g/cc
Heat Deflection Temperature	120°C (248°F)
Shore Hardness	55D
Coefficient of Friction	0.110
Tensile Strength	2990 - 4970 psi
Flexural Strength	2490 psi
Water Absorption (24hr)	0.01%
Dielectric Constant	2.1
Fabrication Method	High-precision CNC Machined

Application	Description	Key Benefit
Parameter	Value / Detail	
Customization	Full customization for dimensions and fittings available	