

High Purity Ptfе Lab Tweezers Chemical Resistant Heat Stable Non Stick Precision Sample Handling Forceps

Item Number: PL-CP290



Introduction

High-purity PTFE laboratory tweezers provide exceptional chemical resistance and non-stick surfaces for sensitive sample handling. These customizable, heat-resistant tools ensure zero contamination, making them essential for demanding industrial research and high-purity trace analysis laboratory environments worldwide.

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Application	Description	Key Benefit
Trace Metal Analysis	Handling samples prior to ICP-MS or AAS analysis where metal-free tools are mandatory.	Eliminates background noise and contamination risk.
Semiconductor Processing	Manipulation of silicon wafers and delicate components within aggressive etching baths.	Chemical resistance ensures tool longevity in HF/nitric acid.
Pharmaceutical Synthesis	Moving active ingredients or catalysts in sterile, controlled environments.	Non-stick surface ensures maximum sample recovery.
Analytical Weighing	Handling high-precision calibration weights for analytical balances.	Prevents oil and moisture transfer from skin to weights.
Cryogenic Research	Retrieving samples from liquid nitrogen or ultra-low temperature freezers.	Retains flexibility and strength at sub-zero temperatures.
Electrochemical Testing	Positioning electrodes and components within corrosive electrolyte cells.	Prevents secondary reactions with the handling tool.
Food Quality Control	Sampling products in high-acid or high-fat environments for testing.	FDA-compliant material ensures no toxic migration.

Parameter	Specifications for PL-CP290
Material Composition	100% High-Purity Virgin PTFE (Polytetrafluoroethylene)
Operating Temperature Range	-260°C to +260°C (-436°F to +500°F)
Chemical Compatibility	Universal resistance (except molten alkali metals and elemental fluorine)
Surface Energy	Extremely low (Non-wetting, Non-stick)
Water Absorption	<0.01% (ASTM D570)
Dielectric Strength	High-performance electrical insulation
Fabrication Method	Precision CNC Machined / Custom Molded
Design Variants	Available in pointed, flat, rounded, or serrated tip profiles
Customization	Fully customizable dimensions, lengths, and tip geometries available
Compliance	Chemically inert, non-toxic, and suitable for high-purity environments