

Customized Ptfе Lab Spatula Corrosion Resistant Food Grade Non Polluting Material Scoop Round Head

Item Number: PL-CP254



Introduction

Customizable PTFE lab spatulas and material scoops provide unmatched chemical resistance and food-grade purity. Engineered for trace analysis and aggressive environments, these non-polluting tools ensure low-background results and superior durability across diverse industrial and laboratory applications.

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Application	Description	Key Benefit
Trace Element Analysis	Handling of high-purity samples in mass spectrometry and atomic absorption spectroscopy labs.	Prevents metal ion contamination and ensures accurate analytical results.
Pharmaceutical Compounding	Measuring and transferring active pharmaceutical ingredients (APIs) and excipients during drug formulation.	FDA-compliant material ensures no cross-contamination or chemical interaction with the drug.
Semiconductor Processing	Used in cleanrooms for handling etching chemicals and high-purity precursors for wafer fabrication.	High-purity PTFE prevents particle generation and chemical leaching in sensitive environments.
Corrosive Chemical Sampling	Retrieving samples from bulk containers containing sulfuric, nitric, or hydrofluoric acids.	Total resistance to acid attack prevents tool degradation and maintains operator safety.
Food & Beverage Quality Control	Sampling of acidic or oily food products in a laboratory or production line setting.	Non-porous surface prevents bacterial growth and is easily sterilized for food safety.
Battery Research & Production	Handling of electrolytes and cathode/anode materials in lithium-ion battery development.	Chemical resistance to aggressive organic carbonates and lithium salts.
Cryogenic Material Handling	Moving samples stored in liquid nitrogen or other ultra-cold environments.	Remains ductile and functional at -200°C without becoming brittle or cracking.
Polymer Synthesis	Stirring and sampling during the polymerization of high-temperature resins or specialty plastics.	High heat resistance allows for direct contact with heated reaction mixtures up to 260°C.

Parameter Group	Specification Detail	PL-CP254 Compatibility
Model Identifier	Product Item Number	PL-CP254
Material Construction	100% Virgin Polytetrafluoroethylene (PTFE)	Standard
Customization Scope	Fully customizable dimensions, handle length, and head shape	Yes (Bespoke Fabrication)
Dimensions (Length)	Variable based on client requirements (from 100mm to 1000mm+)	Customizable
Scoop Capacity	Tailored to application (Micro-spatula to large industrial scoops)	Customizable
Temperature Resistance	-200°C to +260°C (-328°F to +500°F)	Standard
Chemical Resistance	Universal (pH 0-14), excluding molten alkali metals and fluorine gas	Standard
Surface Finish	High-smoothness machine finish (Low Ra value)	Standard
Compliance Standards	FDA Approved, USP Class VI material options available	Standard
Cleaning Methods	Autoclave, Ultrasonic, Chemical Solvent, or Ethylene Oxide	Standard

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Moisture Absorption	<0.01% (ASTM D570)	Standard
Tensile Strength	20-35 MPa (depending on specific grade)	Standard
Density	2.14 - 2.19 g/cm ³	Standard