Semiconductor Ptfe Cleaning Basket 12 Inch Wafer Wet Etching Rack Acid Alkali Resistant Fluoropolymer Carrier

Item Number: PL-CP81

Introduction

Engineered for high-purity semiconductor environments, this 12-inch PTFE wafer cleaning basket ensures exceptional chemical resistance during critical wet etching and cleaning processes. The custom-fabricated design provides reliable wafer support and maximum fluid exposure for precision manufacturing.

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Application	Description	Key Benefit
RCA Cleaning	Standardized sequence (SC-1 and SC-2) for removing organic contaminants and metallic impurities.	Prevents re-contamination during high-pH and low-pH transitions.
HF Etching	Removal of sacrificial oxide layers or native oxides using hydrofluoric acid solutions.	Total immunity to HF attack ensures long-term equipment survival.
Piranha Etch	High-temperature mixing of sulfuric acid and hydrogen peroxide for photoresist removal.	Withstands extreme exothermic reactions without structural softening.
Post-CMP Rinsing	Removing slurry particles and chemicals following Chemical Mechanical Polishing.	Minimal contact points prevent particle entrapment behind the wafer.
Solar Cell Texturing	Acid or alkaline texturing of large-format silicon wafers to improve light absorption.	High-volume durability in continuous chemical exposure environments.
MEMS Fabrication	Deep wet etching of silicon or glass substrates to create micro-mechanical structures.	Ensures uniform etching rates through optimized fluid circulation.
Photolithography	Developing and stripping of photoresist materials using specialized organic solvents.	Solvent-resistant material prevents leaching of organics into the developer.
Megasonic Cleaning	High-frequency acoustic cleaning to remove sub-micron particles from wafer surfaces.	Material density effectively transmits acoustic energy without dampening effects.

Feature	Specification Detail (PL-CP81)
Primary Material	High-Purity Virgin PTFE (Polytetrafluoroethylene)
Wafer Diameter Compatibility	300mm (12-inch) - Custom sizes available upon request
Configuration	Single-wafer carrier / Multi-wafer flower basket configuration
Manufacturing Process	Precision CNC Machining / Bespoke Fabrication
Chemical Resistance	Full range (pH 0-14); resistant to HF, HNO3, HCl, H2SO4, KOH, etc.
Operating Temperature	Continuous use up to 260°C (Custom limits based on design)
Slot Pitch / Spacing	Fully customizable to meet fluid flow or capacity requirements
Contact Type	Point-contact or Edge-contact designs available
Handle Options	Fixed, removable, or automated robotic flange interface
Surface Finish	Ultra-smooth machined finish to minimize particle adhesion

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Feature	Specification Detail (PL-CP81)
Purity Standard	Semi-grade compliant; trace metal analysis available