

# 6 Inch Ptfе Wafer Cleaning Rack For Wet Etching Acid And Alkali Resistant Fluoropolymer Wafer Carrier

Item Number: PL-CP421



## Introduction

High-purity 6-inch PTFE wafer cleaning racks engineered for aggressive wet etching processes. These acid-resistant fluoropolymer carriers provide exceptional chemical stability and ultra-low contamination for semiconductor manufacturing and demanding laboratory trace analysis applications and chemical processing.

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Application	Description	Key Benefit
Semiconductor Wet Etching	Processing of silicon wafers in HF, BOE, or hot phosphoric acid baths.	Prevents metallic contamination and survives aggressive chemistries.
Solar Cell Fabrication	Cleaning and texturizing silicon substrates for photovoltaic cell production.	High-volume durability and resistance to caustic texturing solutions.
Trace Metal Analysis	Cleaning of laboratory glassware and substrates prior to ICP-MS analysis.	Ultra-low background levels and zero ion leaching for precise data.
MEMS Manufacturing	Handling of micro-electromechanical systems during deep reactive ion etching or wet release.	Delicate handling with high dimensional precision for fragile structures.
Chemical Vapor Deposition	Pre-cleaning of substrates to ensure high-quality thin-film growth.	Ensures an atomically clean surface by resisting pre-treatment acids.
Pharmaceutical Cleaning	Sterilization and cleaning of high-purity components in pharmaceutical R&D.	FDA-compliant material with excellent resistance to sterilization agents.
Electroplating Processes	Holding substrates during precise metal deposition in acid or alkaline baths.	Electrical insulation and complete resistance to plating electrolytes.

Specification Category	Details for PL-CP421
Model Number	PL-CP421
Base Material	High-Purity Virgin PTFE (PFA/TFM available on request)
Primary Wafer Diameter	6-Inch (150mm) standard
Wafer Capacity	Fully Customizable (e.g., 25-slot, 50-slot, or bespoke counts)
Slot Width/Pitch	Customizable to substrate thickness and spacing requirements
Handle Design	Fixed, Detachable, or Extended (Customized for bath depth)
Temperature Resistance	-200°C to +260°C (-328°F to +500°F)
Fabrication Method	5-Axis Precision CNC Machining
Surface Finish	Ra < 0.8µm (Typical) or customized polishing
Chemical Compatibility	Universal (Except for molten alkali metals and elemental fluorine)
Compliance	Semiconductor Grade / Trace Analysis Grade