Custom Multi Neck Ptfe Round Bottom Flask For Chemical Synthesis And High Purity Laboratory Research

Item Number: PL-CP252

Introduction

Professional grade custom PTFE multi neck flasks designed for extreme chemical resistance and high purity synthesis. Engineered for seamless integration with stirring paddles and funnels in demanding industrial laboratory environments to ensure zero contamination results for researchers.

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Application	Description	Key Benefit
Perovskite Synthesis	Wet chemical doping and precursor solution preparation for solar cell research.	Zero-contamination transfer ensures precise control of dopant concentrations.
Trace Metal Analysis	Digestion and storage of samples containing ultra-low concentrations of metals.	Eliminates ion leaching from the vessel walls, preserving sample integrity.
Battery Research	Testing of highly reactive electrolytes and lithium-ion battery components.	Resistant to the aggressive chemical components of modern energy storage systems.
Hydrofluoric Acid Handling	Chemical reactions involving HF that would etch or destroy standard borosilicate glass.	Complete chemical immunity to fluorinating agents and concentrated acids.
Nanoparticle Exsolution	Synthesis of nanoparticles through defect engineering and A-site vacancy introduction.	High-purity environment prevents unwanted metallic interference in crystal growth.
Pharmaceutical Synthesis	Multi-step organic reactions requiring simultaneous addition of reagents and stirring.	Custom multi-neck design allows for complex, modular laboratory setups.
Semiconductor Processing	Cleaning and processing of silicon wafers and high-purity electronic components.	Maintains the extreme purity levels required for microelectronic manufacturing.
Cryogenic Research	Low-temperature chemical reactions utilizing liquid nitrogen or dry ice baths.	Maintains flexibility and structural integrity at sub-zero temperatures.

Property	Value	Unit
Specific Gravity	2.10 - 2.20	g/cc
Melting Point	327 (621)	°C (°F)
Heat Deflection Temp (HDT)	120 (248)	°C (°F)
Hardness	55	Shore D
Coefficient of Friction	0.110	-
Tensile Strength	2,990 - 4,970	psi
Flexural Strength	2,490	psi
Water Absorption (24h)	0.01	%
Dielectric Constant	2.1	@ 1MHz

Feature	Specification Details	Customization Status
Model Number	PL-CP252	Standard Base
Standard Volume	50ml	Fully Customizable
Neck Configuration	Single, Double, Triple, or Quad-neck	Fully Customizable
Joint Sizes	14/23, 19/26, 24/29, or Custom Threaded	Fully Customizable
Body Style	Round Bottom / Flat Bottom / Pear Shaped	Fully Customizable
Closure Type	PTFE Screw Cap or Tapered Stopper	Fully Customizable
Internal Finish	Crevice-free, high-polish machined finish	Standard
Wall Thickness	Heavy-duty (application specific)	Customizable
Accessory Compatibility	Stirring paddles, addition funnels, condensers	Standard