

Custom 12L Ptfе Multi Neck Reaction Flask Laboratory Fluoropolymer Chemical Vessel With Stirrer Compatibility

Item Number: PL-CP245



Introduction

Optimize your high-purity chemical processes with this custom 12L PTFE multi-neck reaction flask. Designed for extreme chemical resistance and thermal stability, this vessel offers leak-free performance and seamless integration with industrial stirring and filtration systems.

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Application	Description	Key Benefit
Pharmaceutical Synthesis	Large-scale production of active pharmaceutical ingredients (APIs) involving corrosive precursors.	Absolute purity and zero leaching into the drug product.
Semiconductor Etching	Preparation and containment of ultra-pure etchants like hydrofluoric acid for wafer processing.	Resistance to aggressive acids that dissolve glass vessels.
Fine Chemical Production	Batch processing of specialty chemicals requiring precise multi-neck additions and stirring.	Flexible configuration allows for complex experimental setups.
Trace Metal Analysis	Digestion of geological or environmental samples using strong mineral acids for ICP-MS preparation.	Lowest possible background levels for heavy metal detection.
Polymer Research	Synthesis of new polymers under high heat and constant agitation in an inert environment.	High temperature resistance and non-stick internal surface.
Pilot Plant Scale-Up	Bridging the gap between small bench-scale experiments and full production for chemical processes.	12L capacity provides sufficient volume for meaningful scale-up data.
Corrosive Liquid Storage	Long-term containment of high-purity reagents that are sensitive to moisture or atmospheric CO ₂ .	Gas-tight sealing and chemical resistance ensure reagent longevity.

Parameter	PL-CP245 Specifications
Model Identification	PL-CP245
Base Material	100% High-Purity PTFE (Polytetrafluoroethylene)
Capacity	12 Liters (Customizable volumes available)
Specific Gravity	2.10 - 2.20 g/cc
Melting Point	327°C (621°F)
Maximum Continuous Operating Temp	260°C (500°F)
Heat Deflection Temperature (66 psi)	120°C (248°F)
Hardness (Shore D)	55D
Tensile Strength	2990 - 4970 psi
Flexural Strength	2490 psi
Coefficient of Friction	0.110 (Dynamic)

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Water Absorption (24 Hours)	< 0.01%	
Dielectric Constant (1 MHz)	2.1	
Neck Configuration	Customizable (Standard or Multi-neck available)	
Compatibility	Standard taper joints or custom threaded ports	
Internal Finish	Super smooth, crevice-free (CNC Machined)	