

# Custom Ptfе Insulating Gaskets Corrosion Resistant Teflon Seals Tailored Engineering Plastic Components

Item Number: PL-CP125



## Introduction

Procure high-performance custom PTFE insulating gaskets engineered for extreme chemical resistance and electrical isolation. Our bespoke Teflon seals provide unmatched durability and aging resistance across diverse industrial applications. Request your precision-machined, fully customizable fluoropolymer components today for reliable sealing.

[Learn More](#)

Application	Description	Key Benefit
Chemical Processing	Sealing flanged joints in piping systems carrying hot nitric or sulfuric acids.	Total corrosion resistance prevents hazardous leaks and environmental contamination.
Semiconductor Tools	Insulating and sealing components within wafer etching and cleaning equipment.	High purity prevents metal ion contamination in ultra-clean environments.
Laboratory Apparatus	Custom gaskets for high-pressure hydrothermal synthesis reactors and digestion vessels.	Maintains seal integrity under combined high heat and aggressive chemical vapor.
Power Electronics	Dielectric spacers and insulating plugs for high-voltage transformers and switchgear.	Exceptional electrical resistance prevents short circuits and improves safety.
Aerospace Systems	Fuel system seals and cryogenic fluid insulators for specialized flight hardware.	Remains flexible and functional at liquid nitrogen temperatures without becoming brittle.
Pharmaceutical Manufacturing	Gaskets for sanitary valves and fluid transfer lines in sterile processing environments.	FDA-compliant material ensures no leaching or interaction with active ingredients.
Oil & Gas Exploration	Sealing components for downhole tools exposed to sour gas (H <sub>2</sub> S) and high-pressure steam.	Resistant to rapid gas decompression and chemical degradation in harsh wells.
Food & Beverage	Non-stick seals for high-temperature ovens and acidic liquid filling stations.	Non-toxic and easy-to-clean surface meets stringent hygiene and safety standards.

Feature	Specification Detail for PL-CP125 Series
Model Identifier	PL-CP125 (Custom Configured)
Base Material	Virgin PTFE / Modified PTFE / PFA
Geometry Type	Flat Gaskets, Envelope Gaskets, Insulating Plugs, Custom Bushings
Standard Compliance	Manufactured to DIN, ANSI, JIS, or Custom CAD drawings
Temperature Range	-200°C to +260°C (-328°F to +500°F)
Dielectric Strength	18-80 kV/mm (depending on thickness and grade)
Tensile Strength	20-35 MPa
Elongation at Break	200% - 400%
Chemical Resistance	Universal (except molten alkali metals and fluorine gas)

Application	Description	Key Benefit
Feature	Specification Detail for PL-CP125 Series	
<b>Water Absorption</b>	< 0.01%	
<b>Surface Finish</b>	Precision machined (Ra 0.4 - 1.6 $\mu$ m typical)	
<b>Customization Options</b>	Thickness, OD/ID, Bolt Hole Patterns, Step Features, Tapered Profiles	