

# Custom Ptfе Petri Dish 120Mm Diameter Corrosion Resistant Low Background High Purity Labware

Item Number: PL-CP77



## Introduction

High-purity custom PTFE petri dishes offer exceptional corrosion resistance and low background levels for trace analysis. These 120mm dishes ensure zero dissolution or leaching, providing a non-contaminating environment for sensitive industrial and laboratory chemical processing and testing applications.

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| Application               | Description   | Key Benefit  |
|---------------------------|---|--|
| Trace Metal Analysis      | Evaporation and digestion of environmental samples using concentrated nitric or hydrofluoric acids.     | Eliminates background interference and prevents sample contamination from the vessel walls.          |
| Semiconductor Cleaning    | Etching and cleaning of silicon wafers or small electronic components with high-purity acids.           | Resists the aggressive chemistry required for micro-electronic fabrication without leaching ions.    |
| Pharmaceutical Synthesis  | Reaction and crystallization of active pharmaceutical ingredients (APIs) in controlled environments.    | Ensures that no organic extractables or plasticizers are introduced into the final product.          |
| Isotopic Geochemistry     | Preparation of mineral samples for mass spectrometry where precise isotopic ratios are critical.        | Provides a non-reactive environment that maintains the original isotopic signature of the sample.    |
| Hydrofluoric Acid Storage | Handling and processing of samples containing HF which would rapidly etch glass containers.             | Complete resistance to fluoride ions, ensuring vessel longevity and worker safety.                   |
| Cryogenic Research        | Storage and manipulation of sensitive biological or chemical materials at liquid nitrogen temperatures. | Maintains flexibility and structural integrity without becoming brittle at extreme low temperatures. |
| Specialized Cell Culture  | Cultivation of specific microorganisms that require chemically resistant or non-stick growth surfaces.  | Prevents biological adhesion and simplifies the harvesting of cultures from the dish surface.        |

| Parameter                   | Specification (PL-CP77)                    |
|-----------------------------|--|
| Standard Diameter           | 120mm (Customizable dimensions available)  |
| Material Composition        | High-Purity Polytetrafluoroethylene (PTFE) |
| Melting Point               | 327°C (621°F)                              |
| Heat Deflection Temperature | 120°C (248°F)                              |
| Specific Gravity            | 2.10 - 2.20 g/cc                           |
| Shore Hardness              | 55D  |
| Tensile Strength            | 2,990 - 4,970 psi                          |
| Flexural Strength           | 2,490 psi                                  |
| Water Absorption (24h)      | 0.01%                                      |
| Coefficient of Friction     | 0.110                                      |

| Application           | Description   | Key Benefit |
|-----------------------|---|-------------|
| Parameter             | Specification (PL-CP77)                                       |             |
| Dielectric Constant   | 2.1   |             |
| Corrosion Resistance  | Excellent (Resistant to HF, Aqua Regia, Concentrated Alkalis) |             |
| Manufacturing Method  | Precision CNC Machined for high tolerance and smooth finish   |             |
| Customization Options | Depth, wall thickness, lid design, and integrated handles     |             |