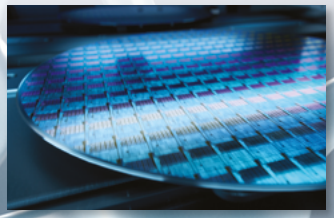
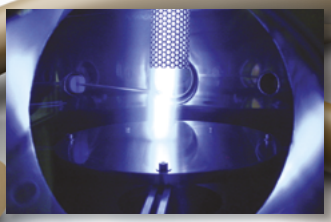
# Isolast® PureFab® JPF10

## FULLY ORGANIC PERFLUOROELASTOMER FOR DEMANDING HIGH-TEMPERATURE SEMICONDUCTOR APPLICATIONS





**An ultra-low outgassing, high-purity material that extends maintenance cycles and maximizes process yields for plasma-based etching and deposition processes.**

Isolast® PureFab® JPF10 is a high-performance perfluoroelastomer (FFKM) designed for critical semiconductor processes. Its fully organic chemistry and high purity minimize contamination risks to increase operation efficiency and lower maintenance requirements.

The material maintains excellent vacuum integrity under aggressive process conditions and at temperatures over +310 °C/+590 °F. It demonstrates outstanding plasma resistance in a wide range of process gases, including $NF_3$, ensuring long-lasting performance.

With minimal particle generation and unrivalled outgassing performance, Isolast® PureFab® JPF10 improves process yields and reduces the total cost of ownership for plasma etch and deposition process equipment.

### ISOLAST® PUREFAB®

The Isolast® PureFab® range is a dedicated portfolio of FFKM materials engineered for the most demanding semiconductor environments. Each grade is carefully optimized for specific application requirements, considering process chemistry, system location and tool complexity — delivering exceptional high-purity sealing performance in plasma environments and under high-temperature conditions.

### Features and Benefits

- Fully organic, high-purity FFKM with ultra-low outgassing and particle generation — maximizing process yields while improving equipment uptime and reliability
- Excellent thermal stability up to +310 °C/+590 °F to withstand high-temperature processing environments
- Low compression set ensures long-term sealing force through proprietary cross-linking technology
- Exceptional vacuum compatibility and plasma resistance in common process gases for more reliable deposition and etch processes
- Superior protection against amine-based process chemicals

### Application Examples

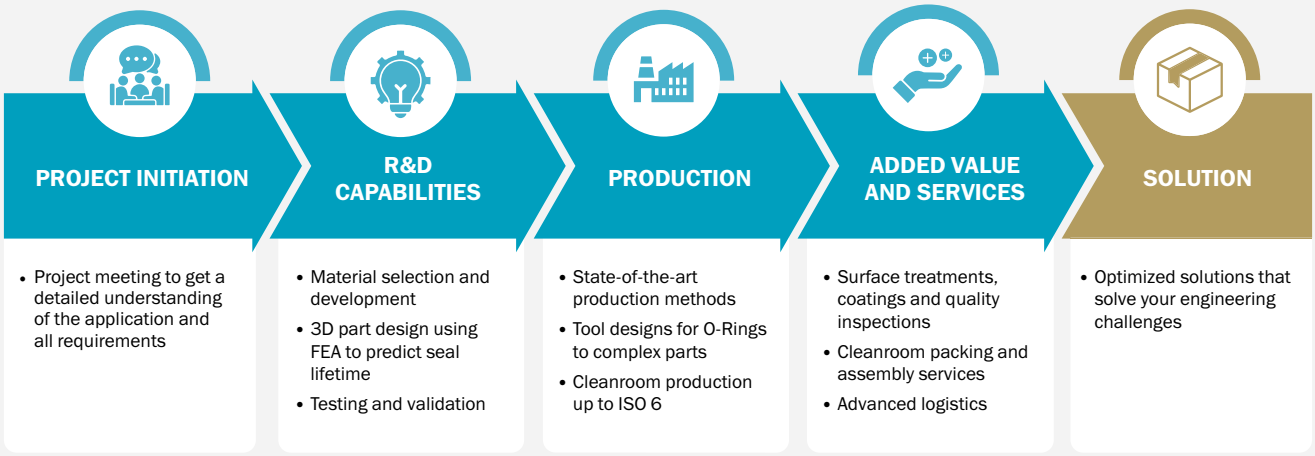
- Seals and components within deposition processes (PECVD, HDPCVD, PEALD) and etching processes (ALE, dry etching)
- Chamber lid and gas inlet seals
- Bonded slit valve doors

# ISOLAST® PUREFAB® JPF10

| General Data | Isolast® PureFab® JPF10 |
|---|---|
| **Elastomer Type** | FFKM |
| **Color** | Light Brown |

| Properties | Test Method | Results |
|---|---|---|
| **Hardness (Shore A)** | ASTM D2240 | 62 |
| **Tensile Strength (MPa)** | ISO 37 | 7.5 |
| **Elongation at Break (%)** | ISO 37 | 250 |
| **Modulus 100% (MPa)** | ISO 37 | 2.2 |
| **Compression Set (%)** | | |
| 72h @ +200 °C/+392 °F | | 11 |
| 72h @ +250 °C/+482 °F | ASTM D395 | 17 |
| 72h @ +300 °C/+572 °F | | 21 |
| **Continuous Service Temperature** | | -5 °C to +310 °C/+23 °F to +590 °F |

## TOGETHER WE DEVELOP YOUR POLYMER SOLUTION

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The information in this publication is intended for general reference only and not for specific applications. Customers must satisfy themselves with the suitability of a product and material for their individual applications.

Color variations, including dark spots, are a normal result of the polymer curing process and do not indicate the presence of foreign matter or negatively impact performance, reliability or cleanliness.

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