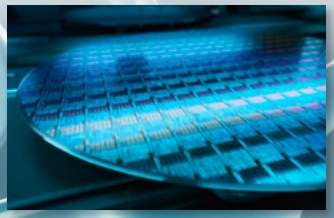
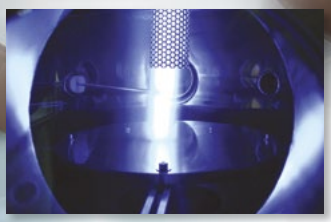
Isolast® PureFab® JPF11

ULTRA-PURE PERFLUOROELASTOMER FOR PLASMA-BASED CHEMICAL VAPOR DEPOSITION APPLICATIONS





Extends seal life and reduces contamination to improve process yields using an ultra-high purity formulation specifically engineered for semiconductor and advanced display manufacturing applications.

Isolast® PureFab® JPF11 is a next-generation, ultra-high purity perfluoroelastomer (FFKM) engineered for demanding semiconductor and advanced display manufacturing environments.

Specifically designed for plasma-based chemical vapor deposition (CVD) processes, Isolast® PureFab® JPF11 is exceptionally resistant to plasma-induced erosion and particle generation to ensure process integrity in critical applications.

Its optimized formulation provides outstanding thermal and chemical stability, excellent mechanical strength and extremely low metal ion content — extending seal life and minimizing contamination in both static and dynamic sealing applications.

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

- Ultra-high purity organic formulation for the lowest possible particle generation in aggressive oxygen and fluorine-based plasmas to maximize process yields
- Minimizes contamination and prevents outgassing with extremely low metal ion content and volatiles
- Optimized plasma resistance with stability at continuous temperatures up to +300 °C/+572 °F
- Extended seal life and excellent long-term mechanical strength through outstanding chemical compatibility and low compression set
- Specifically engineered to meet the requirements of advanced display manufacturing and critical semiconductor operations

Application Examples

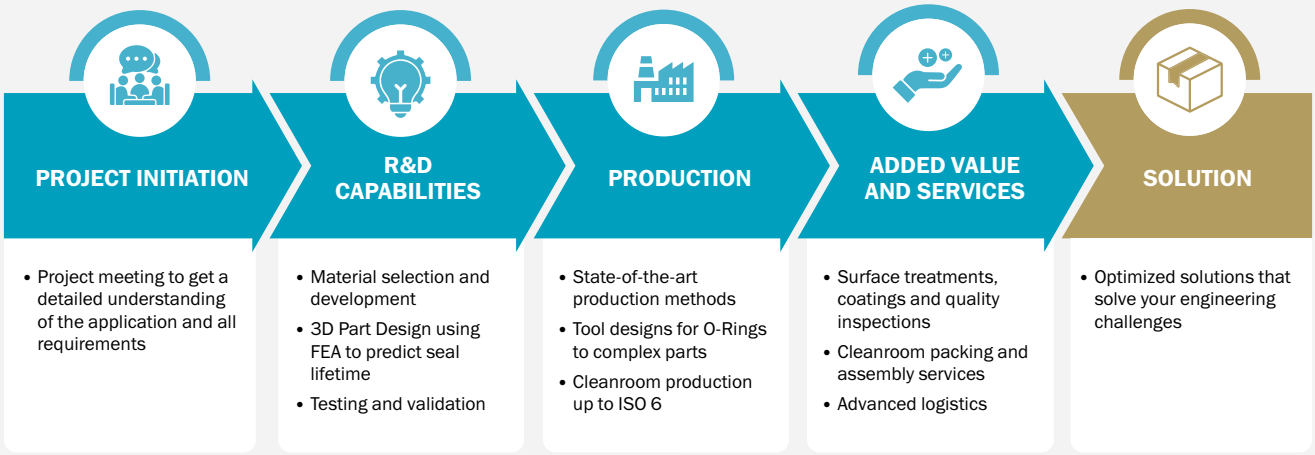
- Dynamic or static seals and components within deposition processes (PECVD, HDPCVD, PEALD) and etching processes (ALE, dry etching)
- Isolation seals for ALD, CVD and etching tools
- Chamber lid and gas inlet seals
- Bonded slit valve doors

ISOLAST® PUREFAB® JPF11

General Data	Isolast® PureFab® JPF11
Elastomer Type	FFKM
Color	Dark Auburn

Properties	Test Method	Results
Hardness (Shore A)	ASTM D2240	71
Tensile Strength (MPa)	ASTM D412	15.1
Elongation at Break (%)	ASTM D412	232
Modulus 100% (MPa)	ASTM D412	5.0
Compression Set (%)		
72h @ +200 °C/+392 °F	ASTM D395	11
72h @ +300 °C/+572 °F		36
Continuous Service Temperature		-5 °C to +300 °C/+14 °F to +572 °F

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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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Version no: 9900275BGG1125