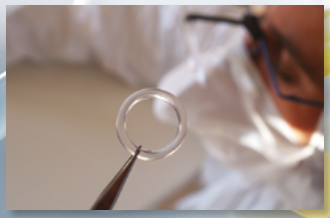
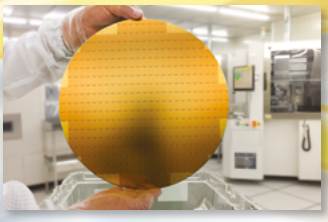
Isolast® PureFab® JPF31

TRANSPARENT, HIGH-PURITY PERFLUOROELASTOMER FOR PLASMA-BASED ASHING AND ETCHING

Increases yield and extends service life in critical semiconductor processes involving aggressive oxygen- and fluorine-based plasma.

Isolast® PureFab® JPF31 is a transparent, high purity perfluoroelastomer (FFKM) specifically engineered for plasma ashing and etching environments.

Its filler-free, organic formulation minimizes metallic contamination and particle generation while providing exceptional resistance to plasma cracking in oxygen- and fluorine-rich chemistries.

Isolast® PureFab® JPF31 delivers excellent compression set performance, mechanical resilience and an ultra-clean profile, making it ideal for high-temperature, low-force sealing applications in dry process tools where transparency and purity are essential.

ISOLAST® PUREFAB®

The Isolast® PureFab® range is a dedicated portfolio of perfluoroelastomer (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

- Engineered for stability in aggressive plasma environments for strip and ash applications with reliable operation at temperatures up to +275°C/+527 °F
- Filler-free design provides unrivalled trace metal and ionic impurity levels, making it ideal for contamination-sensitive tools
- Proven resistance to dry process gases and oxidizing plasma chemistries extends seal life
- Ultra-low particle generation when exposed to aggressive oxygen and fluorine-based plasmas
- Outstanding long-term compression set performance maintains sealing force over long duty cycles and thermal excursions

Application Examples

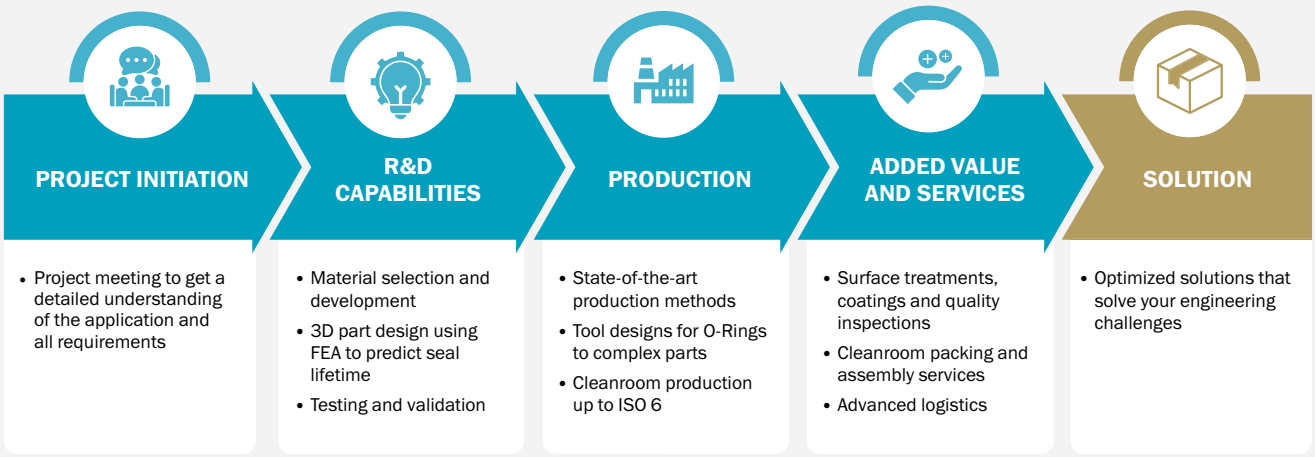
- Static and low force dynamic seals and components for plasma-based ashing/stripping and etching processes
- Chamber lid and gas inlet and outlet seals
- Slit valve door seals

ISOLAST® PUREFAB® JPF31

General Data	Isolast® PureFab® JPF31
Elastomer Type	FFKM
Color	Amber Translucent

Properties	Test Method	Results
Hardness (Shore A)	ASTM D2240	69
Tensile Strength (MPa)	ASTM D412	19.5
Elongation at Break (%)	ASTM D412	184
Modulus 100% (MPa)	ASTM D412	3.1
Compression Set (%) 72h @ +200 °C / +392 °F	ASTM D395	16
Continuous Service Temperature		-5 °C to +275 °C / +14 °F to +527 °F

TOGETHER WE DEVELOP YOUR POLYMER SOLUTION



Partner with Trelleborg to benefit from local specialist support, global reach and dedicated regional semiconductor experts. These three pillars ensure best in class service levels, from design, prototyping and delivery through to serial production.

For more information and contact details visit: www.trelleborg.com/seals

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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