



# Isolast® PureFab™ JPF21



## Outstanding high temperature performance in challenging semiconductor applications

Isolast® PureFab™ JPF21 is a versatile perfluoroelastomer for etch, deposition and thermal processes. It exhibits a superior high temperature capability, which has continuous stability up to +320 °C/+608 °F with excursions to +327 °C/+620 °F.

The material's proprietary filler system offers excellent oxygen plasma resistance, minimum particulation in NF3 plasma and dimensional stability at elevated temperatures. Due to its excellent compression set properties, Isolast® PureFab™ JPF21 can be used in dynamic applications including bonded slit valve doors.

### Special Features

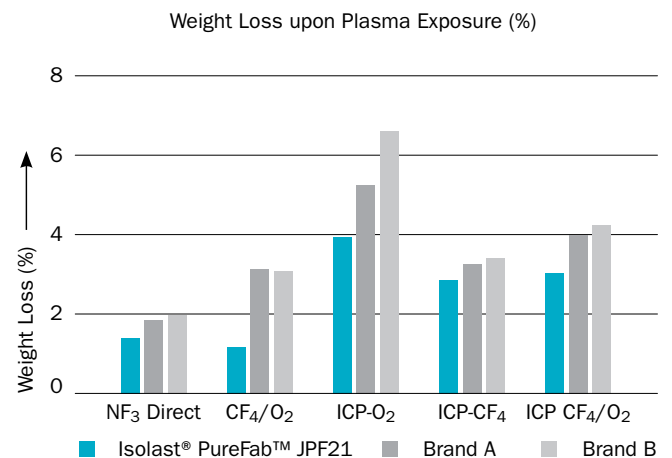
- Excellent high temperature stability allows use in critical locations
- Continuous service temperature up to +320 °C/+608 °F with excursions to +327 °C/+620 °F
- Very low weight loss in most common plasma gasses
- Excellent particulation performance in fluorine plasma

### Typical Applications

- Etch processes: Dielectric etch
- Deposition processes: ALD, PEALD, SACVD
- Thermal processes: Oxidation, diffusion, RTP
- Chamber lid seals
- Plasma showerhead and delivery tube seals
- Bonded slit valve doors

### Plasma Resistance

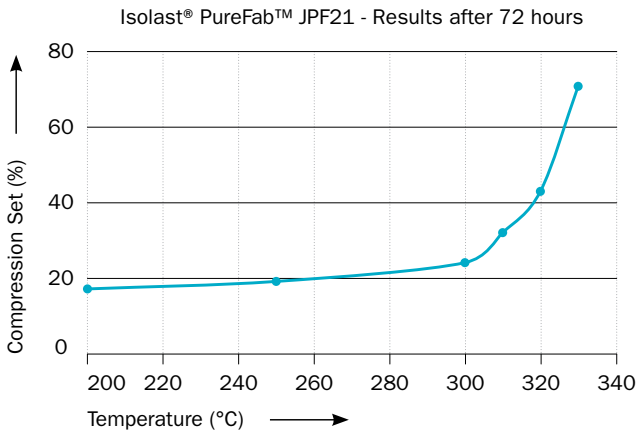
The outstanding plasma resistance of Isolast® PureFab™ JPF21 is indicated by its lower weight loss compared to other brands.



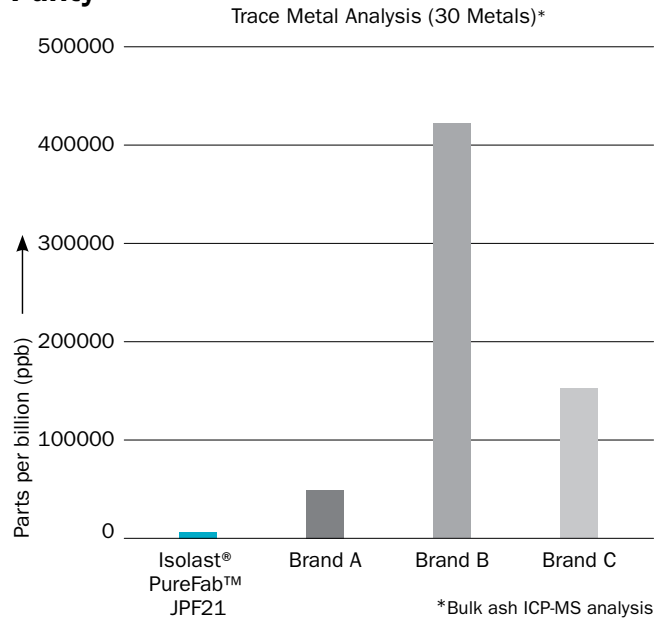
General Data	JPF21
Elastomer Type	FFKM
Color	White

Properties	Test Method	Results
Hardness (Shore A)	D2240	68
Tensile Strength (MPa)	D1414	10.5
Elongation at Break (%)	D1414	260
Modulus 100% (MPa)	D1414	2.1
Compression Set (%)		
72h @+200 °C/+392 °F		17
72h @+250 °C/+482 °F	D395	19
72h @+300 °C/+572 °F		24
Continuous Service Temperature		Up to +320 °C /+608 °F with excursions to +327 °C/ +620 °F

**Compression Set**



**Purity**



Trelleborg Sealing Solutions offers decades of engineering and applications experience, as well as the latest knowledge in the design of high precision, customized sealing solutions for critical semiconductor applications.

The Isolast® PureFab™ range provides a unique and focused material portfolio to match the process chemistry, system location and tool complexity of demanding semiconductor environments, delivering the ultimate in high purity sealing performance in plasma and at high temperatures.

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. This industry-leading design support and our digital tools are key assets to accelerate performance.



**For more information and contact details scan the QR code or visit [www.tss.trelleborg.com](http://www.tss.trelleborg.com)**