Fully organic material for demanding high temperature semiconductor applications

The Isolast® PureFab™ JPF10 perfluoroelastomer has a fully organic formulation for use in the most critical semiconductor processes.

The material offers excellent vacuum integrity under aggressive process conditions and temperatures over +300 °C/+572 °F, as well as outstanding plasma resistance in a wide range of process gasses including NF3.

Low particle generation and excellent outgassing performance means Isolast® PureFabTM JPF10 can increase process yields and lower the total cost of ownership of semiconductor processes.

Special Features

- · Fully organic, extremely high purity
- Excellent thermal stability over +300 °C/+572 °F
- Superior resistance to amine-based process chemicals
- Proprietary cross-linking technology provides low compression set while retaining sealing force
- · Excellent sealing performance
- Outstanding plasma resistance in most common process gasses
- Ultra low outgassing
- Continuous service temperature up to +310 °C/+590 °F

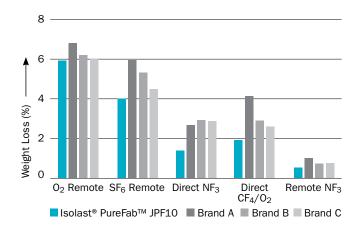
Typical Applications

- Deposition processes: PECVD, HDPCVD, PEALD
- Etch processes: ALE, dry etch
- Chamber lid seals
- · Gas inlet seals
- · Bonded slit valve doors

Plasma Resistance

The outstanding plasma resistance of Isolast® PureFab $^{\text{TM}}$ JPF10 is indicated by its lower weight loss compared to other brands.

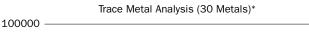
Weight Loss upon Plasma Exposure (%)

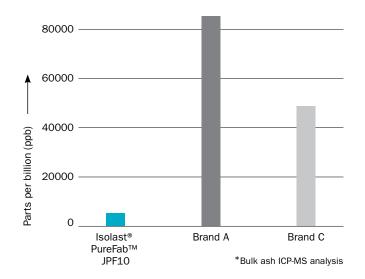


General Data	JPF10	
Elastomer Type	FFKM	
Color	Light brown	

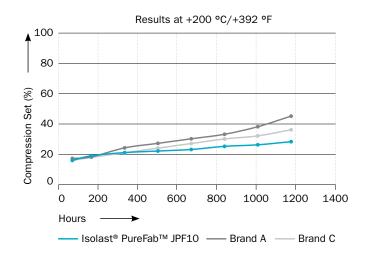
Properties	Test Method	Results
Hardness (Shore A)	D2240	65
Tensile Strength (MPa)	D1414	8
Elongation at Break (%)	D1414	270
Modulus 100% (MPa)	D1414	2.2
Compression Set (%)		
72h @+200 °C/+392 °F		14
72h @+250 °C/+482 °F	D395	23
72h @+300 °C/+572 °F		34
Continuous Service Temperature		Up to +310 °C /+590 °F

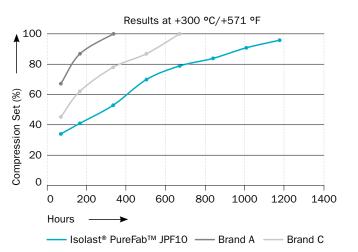






Compression Set





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

