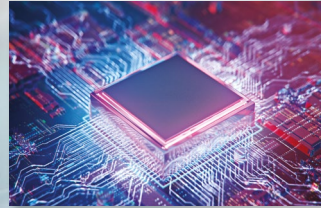
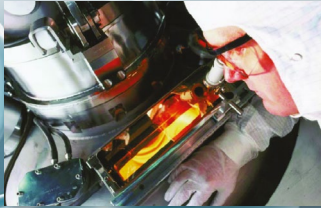




# Isolast® PureFab® JPF58

**FLUROSURFACTANT-FREE PERFLUOROELASTOMER  
FOR THERMAL SEMICONDUCTOR PROCESSES**



**Isolast® PureFab® JPF58 is a high-temperature FFKM manufactured without fluorosurfactants, lowering its environmental impact. It delivers purity and performance in demanding semiconductor applications to extend service life.**

Isolast® PureFab® JPF58 is an advanced thermal-resistant perfluoroelastomer (FFKM), manufactured without the use of fluorosurfactants. It is specifically developed for extremely high-temperature processes requiring long-term thermal stability and purity.

Able to perform at continuous temperatures up to +300 °C/+590 °F, the material is engineered for demanding processes such as diffusion, oxidation, low-pressure chemical vapor deposition (LPCVD), atomic layer deposition (ALD), rapid thermal processing (RTP) and high-temperature subfab systems where conventional FFKMs degrade rapidly.

Isolast® PureFab® JPF58 delivers exceptional thermal endurance, ultra-low outgassing, excellent elastic recovery and strong crack resistance under both static and cyclic thermal loads to provide optimized service life in demanding semiconductor 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

- Fluorosurfactant-free manufacturing for reduced environmental impact
- Exceptional thermal stability up to +300 °C/+590 °F ensuring seal integrity over extended periods
- Superior cracking resistance under high mechanical and thermal stress to optimize service life
- Outstanding compatibility with aggressive process gases and corrosive exhaust gases in demanding semiconductor applications
- Minimal deformation under continuous high-load and high-temperature cycles, ensuring long-term seal integrity

## Application Examples

- Seals and components within high-temperature processes, including RTP, ALD, CVD and diffusion furnaces
- Quartz tube, plenum, chamber and furnace door seals
- Exhaust and vacuum connection flanges and centering rings

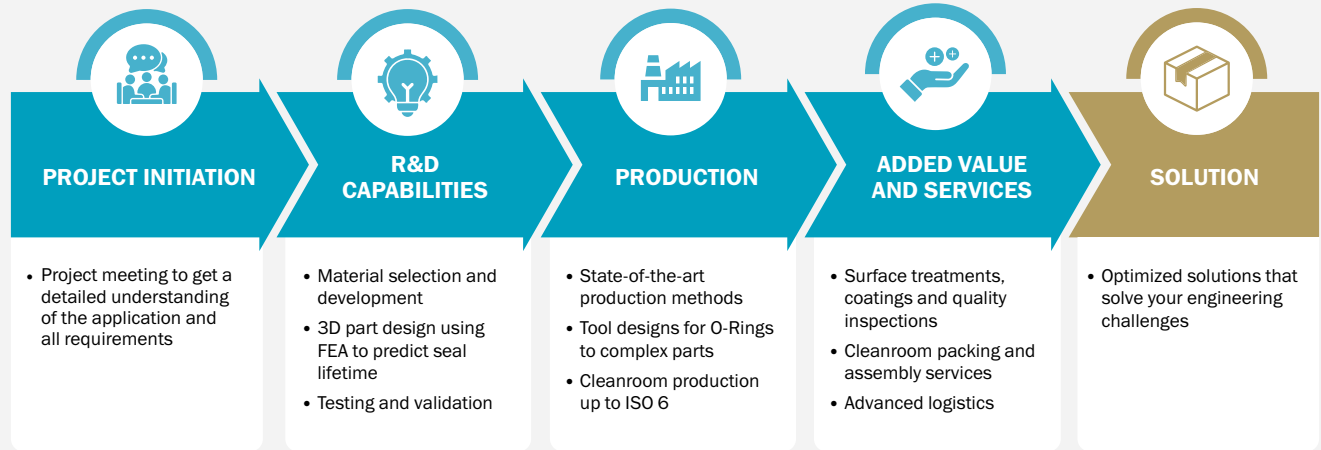
# ISOLAST® PUREFAB® JPF58

General Data		Isolast® PureFab® JPF58
<b>Elastomer Type</b>		FFKM
<b>Color</b>		Black

Properties	Test Method	Results
<b>Hardness (Shore A)</b>	ASTM D2240	75
<b>Tensile Strength (MPa)</b>	ASTM D1414	17.7
<b>Elongation at Break (%)</b>	ASTM D1414	123
<b>Modulus 100% (MPa)</b>	ASTM D1414	13.0
<b>Compression Set (%)</b>		
72h @ +200 °C/+392 °F	ASTM D395	8
72h @ +300 °C/+572 °F		19
<b>Continuous Service Temperature</b>		-5 °C to +300 °C/+14 °F to +572 °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](http://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.

### INTERACTIVE PLASMA PROCESSING EXPERIENCE

Discover advanced sealing solutions that improve uptime and boost yield in our interactive web section. See how we're driving progress in the industry.

[www.trelleborg.com/seals/your-industry/semiconductor/dry-processing-capabilities](http://www.trelleborg.com/seals/your-industry/semiconductor/dry-processing-capabilities)

