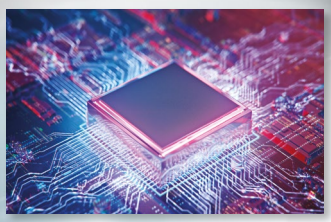
Isolast® PureFab® JPF58

FLUOROSURFACTANT-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/+572 °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/+572 °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

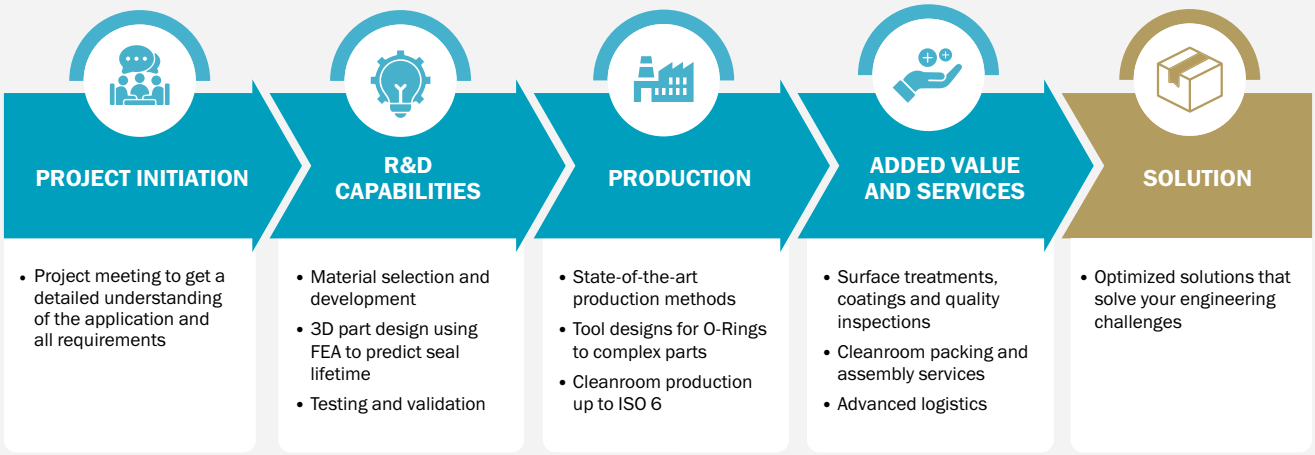
- Seals and components within high-temperature processes, including RTP, ALD, CVD and diffusion furnaces
- Quartz tube, plenum, chamber and furnace door seals
- Exhaust and vacuum connection flanges and centering rings

ISOLAST® PUREFAB® JPF58

General Data	Isolast® PureFab® JPF58
Elastomer Type	FFKM
Color	Black

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

TOGETHER WE DEVELOP YOUR POLYMER SOLUTION



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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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