HF355-65 for Semicon

HiFluor™ : High Performance Fluoroelastomer

High Purity Sealing:

HF355-65 is the newest member to Parker's HiFluor material family. HiFluor is the Parker trade name for high performance fluoroelastomer materials that "bridge the gap" between traditional fluorocarbon (FKM) and perfluoroelastomer (FFKM) materials.

HF355-65 is a unique material technology developed to accommodate the demanding semiconductor industry. This 65 durometer, low closure force fluoroelastomer is translucent in color and offers high purity and high performance.



Contact Information:

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Features & Benefits:

- Outstanding high purity
- Very low particle generation and ion content
- Cost effective alternative to FFKM
- Good chemical/plasma resistance
- Improved cleanliness compared to fluorocarbon (FKM)
- Complies with USP Class VI extraction requirements
- Low closure force
- No inorganic or black fillers
- Translucent



HF355-65 Test Report

Temperature Range: -15° to 400°F (-26° to 204°C)

Test Samples: 2-214 size O-rings (unless otherwise specified)

Specifications: General Properties

Compound Description: Low closure force, translucent, clean, 65 shore A high performance fluoroelastomer, and USP class VI compliant.

Original Physical Properties	Test Method	Test Results
Hardness, Shore A, pts.	ASTM D2240	67
Tensile strength, psi	ASTM D1414	1173
Ultimate elongation, %	ASTM D1414	262
Modulus at 100% elongation, psi	ASTM D1414	274
Specific gravity	ASTM D297	1.94
Dry heat resistance (70 hrs. at 257°F)		
Hardness change, pts.	ASTM D573	+4
Tensile change, %	ASTM D573	+5
Elongation change, %	ASTM D573	+1
Modulus change, %	ASTM D573	+4
Weight change, %	ASTM D573	0
Compression set ASTM D395, % set		
22 hrs. at 347°F	ASTM D395 Method B	8
22 hrs. at 392°F	ASTM D395 Method B	12
168 hrs. at 347°F	ASTM D395 Method B	16
168 hrs. at 392°F	ASTM D395 Method B	40
168 hrs. at 446°F	ASTM D395 Method B	90
ASTM D1329 low temperature retraction		
TR-10, °F (°C)	ASTM D1329	23 (-5)
TR-50, °F (°C)	ASTM D1329	42.3 (5.7)
TR-70, °F (°C)	ASTM D1329	48.7 (9.3)

Typical Applications:

HF355-65 is ideal for high purity elastomeric sealing applications that require low particle generation, extremely low extractibles and excellent fluid/plasma resistance to aggressive chemistries within the semiconductor market.

Parker Hannifin is a leading supplier of O-ring sealing products with a range of customer support tools, including a dedicated sales and applications engineering staff, research and development team, and finite element analysis (FEA) capabilities.





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