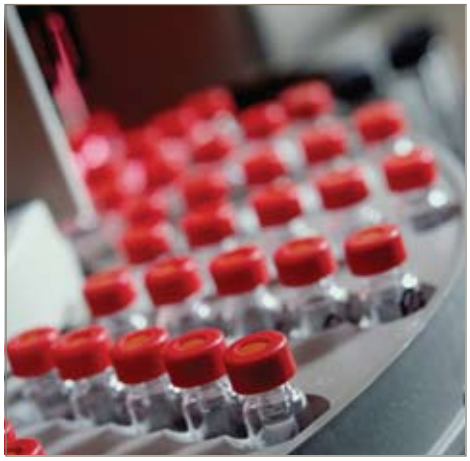
HF355-65 for Life Sciences

HiFluor™ : High Performance Fluoroelastomer



High Purity Sealing:

HF355-65 is the newest member of 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 ideal for high purity life science applications. This 65 durometer material has better compatibility than traditional FKMs, offers extremely low extractibles, is inert, and is translucent in color. Additionally, HF355-65 has no sterilization restrictions and can be used with plastic mating components.

Contact Information:

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Features & Benefits:

- Outstanding high purity
- Very low organic and inorganic extractibles
- Cost effective alternative to FFKM
- Good chemical/plasma resistance
- Improved cleanliness compared to fluorocarbon (FKM), ethylene propylene (EPDM) and silicone (VMQ)
- Complies with USP Class VI
- Low closure force
- No inorganic or black fillers (No PAHs)
- Translucent
- No animal products

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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
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
ASTM D1329 low temperature retraction		
TR-10, °F(°C)	ASTM D1329	23 (-5)

USP and ISO Systemic Toxicity Study		
	Test Group	Control Group
Extract	# Deaths / # Tested	# Deaths / # Tested
Saline	0 / 5	0 / 5
Alcohol in saline	0 / 5	0 / 5
Polyethylene glycol 400	0 / 5	0 / 5
Sesame oil	0 / 5	0 / 5

USP Intracutaneous Study			
Extract	Avg. test score	Control test score	Difference
Saline	0.0	0.0	0.0
Alcohol in saline	0.0	0.0	0.0
Polyethylene glycol 400	0.0	0.0	0.0
Sesame oil	0.8	0.9	0.1

Typical Applications:

HF355-65 is ideal for sealing applications that require extremely low extractibles and excellent fluid resistance to aggressive chemistries within the life science market. The most common uses for this material include drug delivery devices, pharmaceutical and bio-pharmaceutical manufacturing, analytical equipment and other applications requiring extreme purity.

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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