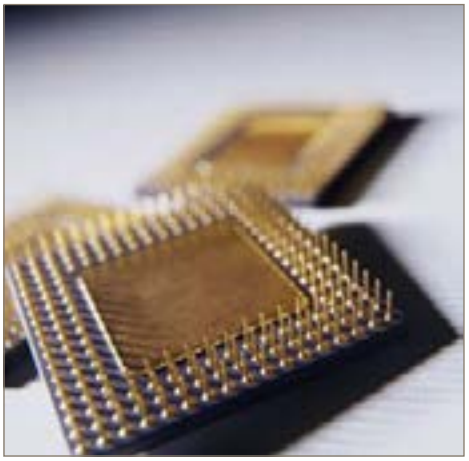
FF374-60 & FF376-80

ULTRA™ Perfluoroelastomers



Low particle generation:

In applications where the volume and size of particles matter, not just any material will do. Parker has developed two new Parofluor ULTRA materials, FF374-60 and FF376-80, to provide minimal particle generation and extractable levels while maintaining a low erosion rate even in the most aggressive plasma chemistries. As the newest materials released in the Parofluor ULTRA family, FF374-60 and FF376-80 have the lowest extractables in their class. Neither material contains inorganic filler systems, ensuring low levels of metal ions. They are recommended for applications in deposition processes such as CVD, HDPCVD, SACVD, PECVD, and etching/ashing. For further information on these ground breaking technologies please contact Parker O-ring Division.

Contact Information:

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FF374-60 features:

- Deep purple color
- Maximum operating temperature 600°F (315° C)
- Lowest extractable levels in its class
- Minimal metallic ion content
- Contains no phosphorus
- Lowest particle generation in its class
- No inorganic filler systems
- Excellent resistance to oxygen and fluorine plasmas

FF376-80 features:

- Deep purple color
- Maximum operating temperature 600°F (315° C)
- Lowest extractable levels in its class
- Minimal metallic ion content
- Contains no phosphorus
- Minimal particle generation
- No inorganic filler systems
- Low erosion rate with excellent resistance to oxygen and fluorine plasmas

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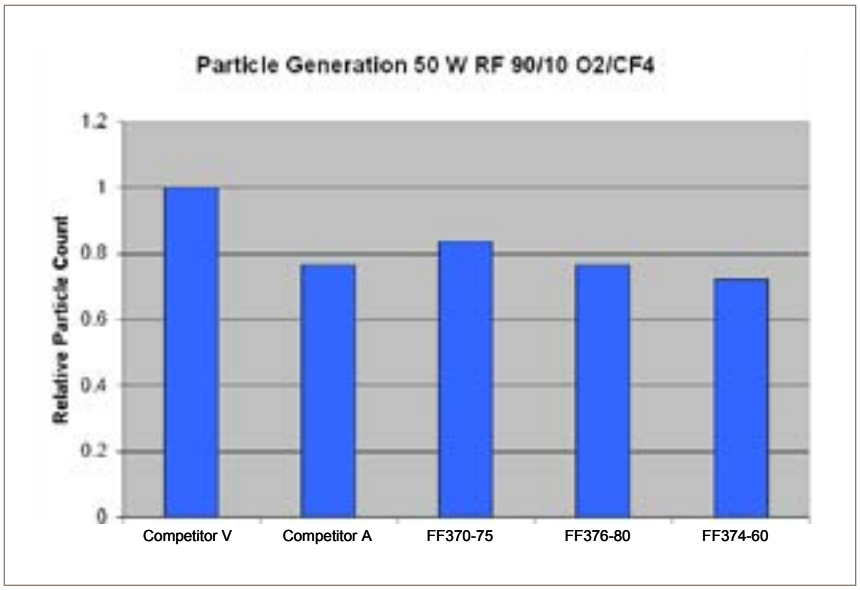
FF375-60 & FF376-80 Material Data (Test samples: 2-214 O-rings)			
Original physical properties	Test Method	FF374-60	FF376-80
Hardness, Shore A, pts.	ASTM D2240	65	78
Tensile strength, psi	ASTM D412	1262	1948
Elongation, %, min.	ASTM D412	365	364
Modulus @ 100% elongation, psi	ASTM D412	186	409
Specific Gravity	ASTM D297	2.05	2.07
Compression set, 70 hrs @ 480° F			
% of original deflection, max	ASTM D395	20	22
Compression set, 70 hrs @ 600° F			
% of original deflection, max	ASTM D395	43	69.2

Compression Set Comparison (ASTM D395 Method B)						
Compression set, 70 hrs @ 480° F	FF370-75	FF350-75	FF352-75	Competitor A	FF374-60	FF376-80
% of original deflection, max	28	26	14	16	20	22
Compression set, 70 hrs @ 600° F						
% of original deflection, max	51	46	24	54	43	69



Applications:

- O-rings
- Molded shapes
- Target lids
- Slit valve doors
- Wafer pads
- ISO valves
- Chamber seals
- Heater/lamps
- Quartz windows
- Gate valve doors

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