FF302-75

ULTRA FFKM for Semiconductor High End Deposition Applications



Extremely Low Etch & Metals:

Parker has developed FF302, a uniquely formulated perfluoroelastomer that provides the ideal solution for high end deposition applications where wafer yield is critical. Historically, non-filled technologies have offered very low metals content but erode rapidly in aggressive chemistries requiring frequent seal change. Metal oxide filled technologies offered improved etch resistance but higher risk of contamination due to that same metallic content. Parker Ultra™ FF302 answers that conundrum by offering excellent etch resistance in oxygen and fluorine plasmas while maintaining extremely low metals.



Contact Information:

Parker Hannifin Corporation
O-Ring & Engineered Seals Division
2360 Palumbo Dr.
Lexington, KY 40509

phone 859 269 2351 fax 859 335 5128

www.parkerorings.com

Features:

- Maximum operating temperature 600°F (315° C)
- Lowest extractables
- Extremely low metallic ion content
- Low particle generation
- Excellent oxygen and fluorine plasma resistance



FF302-75 Material Data



Property	Typical Results
Original Properties, ASTM D2240, D1414	
Shore A Hardness	75
Tensile Strength, psi	1198
Modulus at 100% Elongation	562
Ultimate Elongation, %	210
Compression Set, ASTM D395 Method B	
70 hours @ 446° F(230° C), % of original	19
deflection	

Extremely Resistant:

FF302 provides robust sealing against CF4, NF3, O2 and O3 plasmas making it an excellent option for not only deposition but for etch processes as well. FF302 exhibits a much slower etch rate even compared to products that are developed for specifically etch resistance.

Purity:

In semiconductor processing it is critical that any generation of foreign material is mitigated. Seals have traditionally been a likely avenue for particles to be generated in the harsh environments of wafer processing. FF302 was developed to be cleaner than traditional, clean technologies.



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