



CHEMRAZ® 667

Enhanced Performance in O₂ Based Plasma Etching

SEALING SOLUTIONS

Specifically developed to meet the demands of aggressive dry O₂ based plasma etch systems, Chemraz® 667's unique formulation provides enhanced resistance to cracking and improved physical properties. This softer, lower stiction perfluoroelastomer makes seal installation easier and increases seal lifetime, resulting in greater equipment uptime and higher wafer processing yields.

Recommended for both static and semi-dynamic oxide etch wafer-processing applications, Chemraz 667 remains stable at continuous service temperatures up to 300°C (572°F).



FEATURES & BENEFITS

- Excellent O₂ based plasma resistance
- Lower hardness facilitates seal installation
- Lower compression set extends service lifetime
- Lower sticking force reduces tearing with semi-dynamic seal applications
- Unique formulation withstands high service temperatures up to 300°C (572°F)

APPLICATIONS

- Chamber seals
- Endpoint windows
- Gas inlet seals
- Gate valve seals
- Isolator valve seals
- KF fitting seals
- Lid seals
- Slit valve seals
- Window seals

RECOMMENDED PROCESS APPLICATIONS

- Dry O₂ based plasma etch
- Remote O₂ based plasma cleans
- Dry ashing

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TYPICAL PROPERTIES*		
Physical	ASTM Method	Typical Value
Color		Burgundy
Polymer Type		Perfluoroelastomer
Specific Gravity	D792	2.02
Hardness, Shore A**	D2240	65
Hardness, Shore M	D1414 D2240	70
Mechanical		
Tensile Strength, psi (kPa)	D1414	1,400 (9,650)
Elongation, %	D1414	270
Tensile Modulus, psi (kPa) @ 50% Elongation @ 100% Elongation	D1414	140 (970) 240 (1,660)
Compression Set @ 25% Deflection, % 70 hours @ 200°C (392°F)		25
Thermal		
Maximum Service Temperature		-20°C to 300°C (-4°F to 572°F)

* Note: Unless otherwise indicated, all tests are performed on AS 568A (-214) O-rings.
 ** Note: Test performed on button samples.

Statements and recommendations in this publication are based on our experience and knowledge of typical applications of this product and shall not constitute a guarantee of performance nor modify or alter our standard warranty applicable to such products.

Prior to actual use it is recommended compatibility tests be run to determine suitability in a specific application. This is critical where failure could result in injury or damage. A regular program of inspection and replacement should be implemented. Greene, Tweed technical personnel are available to help with a recommendation.