



CHEMRAZ® 657

Minimal Contamination in Dry Plasma Etching Processes

SEALING SOLUTIONS

Specifically developed to meet the demands of aggressive dry plasma systems, Chemraz® 657 perfluoroelastomer's unique formulation provides enhanced plasma resistance and minimal contamination resulting in less downtime and higher wafer processing yields. Recommended primarily for both static and dynamic oxide etch wafer processing applications, Chemraz 657 remains stable at service temperatures up to 280°C (536°F) with excursions to 300°C (572°F).



FEATURES & BENEFITS

- Excellent plasma resistance in a variety of aggressive chemical environments
- Minimal particulation
- Withstands high service temperatures up to 280°C (536°F) with excursions to 300°C (572°F)

APPLICATIONS

- Endpoint windows
- Bell jar seals
- Valve seals
- KF fitting seals
- Window seals
- Isolator valve seals
- Lid seals
- Gas Inlet seals
- Slit valve seals
- Chamber seals

RECOMMENDED PROCESS APPLICATIONS

- Dry plasma etch
- Deposition (CVD, PECVD, RPCVD, HDPCVD, APCVD, SACVD, DCVD)
- Remote plasma cleans
- Dry ashing
- Oxidation (LPCVD)
- Diffusion
- Metalization (CVD, PVD, sputtering, evaporation)

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.

TYPICAL PROPERTIES*	
Physical	Typical Value
Color	Burgundy
Polymer Type	Perfluoroelastomer
Specific Gravity	2.04
Hardness, Shore A	85
Mechanical	
Tensile Strength, psi (kPa)	2200 (15169)
Elongation, %	148
Tensile Modulus, psi (kPa)	
Modulus @ 50% Elongation	645 (4447)
Modulus @ 100% Elongation	1385 (9550)
Compression Set: 70 hours @ 204°C @ 25% Deflection, %	29
Thermal	
Service Temperature Range	-20°C to 280°C (-40°F to 536°F)

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

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