

# Chemraz® 657

## Minimal Contamination in Dry Plasma Etching Processes

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 536°F (280°C) with excursions to 572°F (300°C).

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

Not to be used for specification purposes.

Unless otherwise indicated, all tests are performed on AS 568A (-214) o-rings.

\* Test performed on button samples.

Note: Color variations and dark spots that might be observed in Chemraz® parts are considered cosmetic and an inherent result of the polymer curing process. They are not foreign matter and not anticipated to adversely affect the performance of the part in service. Please contact a Greene Tweed applications engineer for additional information.



### Features and Benefits

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

### 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)

#### Contact Us

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08/18-GT DS-US-SC-156