

# Chemraz® 547

## Exceptional Fluorine Plasma Resistance

### Enhanced Performance in Aggressive Environments

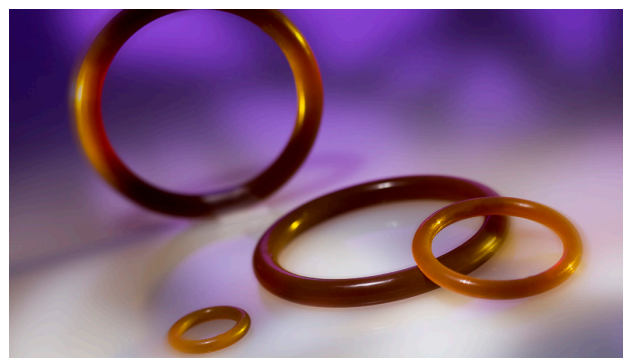
Chemraz® 547 is a perfluoroelastomer specifically developed by Greene Tweed to meet the rigorous demands of aggressive plasma systems. Its unique formulation provides enhanced plasma resistance in fluorine plasma processes, resulting in less downtime and higher wafer processing yields. This novel formulation delivers elemental purity, without fillers, to reduce contamination risk. Chemraz® 547 is recommended for both dynamic and static dry wafer processing applications, such as deposition (PECVD, HDPCVD) and remote plasma cleans. Chemraz® 547 remains stable at service temperatures up to 572°F (300°C).

Typical Properties	
Physical Properties (ASTM Standard)	Typical
Color	Translucent Brown
Polymer Type	Perfluoroelastomer
Specific Gravity (D792)	2.05
Hardness, Shore A* (D2240)	77
Mechanical (ASTM Standard)	
Tensile Strength, psi (MPa) (D1414)	2100 (14.5)
Elongation, % (D1414)	190
Modulus @ 100%, psi (MPa)(D1414)	550 (3.8)
Compression Set @ 25% Deflection, % 70 Hours @ 300°C (572°F) (D395)	35
Thermal	
Maximum Service Temperature	572°F (300°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.



### Features and Benefits

- Exceptional plasma resistance in fluorine environments
- Minimal particulation and surface degradation
- High purity, very low metallic ion content
- Excellent compression set for repeated use

### Applications

- Lid seals
- Endpoint windows
- Gas inlet/outlet seals
- Chamber seals
- Valve seals
- Slit valve seals
- Isolation valve seals
- Gasket seals
- Dispensing seals
- Regulator seals
- Filler seals

### Recommended Process Applications

- Deposition (PEALD, PECVD, RPCVD, HDPCVD, APCVD, SACVD, DCVD)
- RTP/diffusion
- Remote plasma cleans

*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.*

### Contact Us

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