Chemraz® 515

Universal Compound for Conventional Applications

Chemraz® 515 is recommended for a wide variety of semiconductor equipment dry processing applications where seal reliability with minimal contamination is required. The material offers excellent performance in static plasma, photolithography, and diffusion processes where temperatures do not exceed 410°F (210°C) and high-sealing loads are not used. The hardness of this material allows for some hardware finish inconsistency.
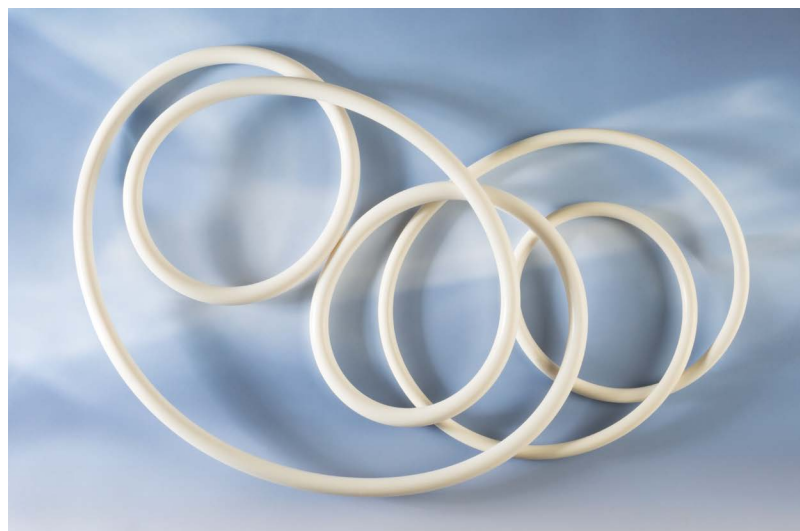
Typical Properties	
Physical Properties	**Typical**
Color	White
Polymer Type	Perfluoroelastomer
Specific Gravity	2.12
Hardness, Shore A*	70
Mechanical	
Tensile Strength, psi	1100
Elongation, %	150
Tensile Modulus, psi	
Modulus @ 50% Elongation	300
Modulus @ 100% Elongation	710
Compression Set, 70 Hours @ 204°C @ 25% Deflection, %	35
Thermal	
Service Temperature Range	-22°F to 410°F (-30°C to 210°C)

Unless otherwise indicated, all tests are performed on AS 568A (-214) o-rings.
Not to be used for specification purposes.
* 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 & Benefits

- Good plasma resistance and physical properties
- Minimal contamination
- Excellent performance history as "universal product"

Applications

- Door seals
- Slit valves
- Window seals
- Isolator valve seals
- Lid seals
- Gas inlet seals
- KF fitting seals

Recommended Process Applications

- Metalization (CVD, PVD, sputtering, evaporation)
- Deposition (CVD, PECVD, RPCVD, HDPCVD, APCVD, SACVD, DCVD)
- Dry plasma etch
- Remote plasma cleans
- Dry ashing
- Ion implant
- Implant anneal
- Rapid thermal processing (RTP)