

Chemraz® E38

Minimal Contamination in Dry Plasma Etching Processes

Chemraz® E38 is specifically developed for high-density plasma systems and diffusion processes where seal reliability and minimal contamination are essential. It provides excellent chemical compatibility and withstands a variety of aggressive chemicals. Available in a range of geometries and cross-sections, Chemraz® E38 offers the diversity required for dynamic or static dry processing applications. Recommended for slit valves, Chemraz® E38 remains stable at service temperatures as high as 500°F (260°C).



Typical Properties	
Physical Properties	Typical
Color	White
Polymer Type	Perfluoroelastomer
Hardness, (Buttons, ASTM D2240)	80 Shore A
Mechanical	
Tensile Strength, ASTM D1414, (kPa)	2200 (15169)
Elongation, ASTM D1414	150%
50% Modulus, ASTM D1414, psi (kPa)	410 (2827)
100% Modulus, ASTM D1414, psi (kPa)	1100 (7585)
Compression Set, (25% deflection, 70hr 204°C in air)	21%
Temperature	
Maximum Service Temperature	260°C
Long-Term Service Temperature	225°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

- Minimal contamination
- Withstands a variety of aggressive chemicals
- Due to special processing techniques the ID can be made in very large sizes
- Excellent physical properties
- Low metal ion content
- Unlimited design flexibility

Applications

- Bonded gate seals
- Chamber seals

Recommended Process Applications

- Dry plasma etch
- Dry ashing
- Remote plasma cleans
- Deposition (CVD, PECVD, RPCVD, HDPCVD, APCVD, SACVD)
- Oxidation
- Diffusion and Anneal
- Metalization (PVD, sputtering, evaporation)
- Ion implant
- Rapid thermal processing (RTP)

Greene Tweed

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