

# Chemraz® E38

## Minimal Contamination in Dry Plasma 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) where high sealing loads are not used.



Typical Properties	
Physical Properties	Typical
Color	White
Polymer Type	Perfluoroelastomer
Specific Gravity	1.99
Hardness, Shore A*	80
<b>Mechanical</b>	
Tensile Strength, psi (kPa)	2200 (15169)
Elongation, %	150
<b>Tensile Modulus, psi (kPa)</b>	
Modulus @ 50% Elongation	410 (2827)
Modulus @ 100% Elongation	1100 (7585)
Compression Set: 70 Hours @ 204°C @ 25% Deflection, %	21
<b>Thermal</b>	
Service Temperature Range	-4°F to 500°F (-20°C to 260°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
- Excellent physical properties
- Low metal ion content
- Unlimited design flexibility

### Applications

- Bonded gate seals
- Chamber seals

### Recommended Process Applications

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

### Contact Us

Greene Tweed  
Kulpsville, PA, USA  
Tel: +1.215.256.9521  
Fax: +1.215.256.0189

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.  
© 2018, Greene Tweed all rights reserved. All trademarks are property of their respective owners.

09/18-GT DS-US-SC-155