

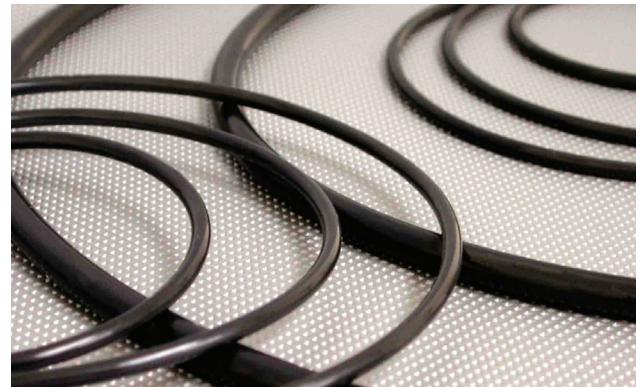
# Chemraz® 551

## Broad Chemical Resistance at Elevated Temperatures

With its broad chemical resistance, Chemraz® 551 is ideally suited as a universal sealing material for aqueous semiconductor wafer processing and chemical/DI water distribution systems.

Chemraz® 551 provides a significantly wider operational band and superior compression set resistance than any other broad range perfluoroelastomer on the market. With an upper temperature limit of 600°F (316°C), it's the elastomer of choice for the most demanding applications from ozonated DI water to hot sulfuric resist strip.

Chemraz® 551 is one of Greene Tweed's many cost-effective products and services that increase the reliability and extend the lifetime of our customers' equipment in challenging aqueous conditions while protecting both the operator and the environment from harmful fluid leaks.



Typical Properties	
Physical Properties (ASTM Standard)	Typical
Color	Black
Polymer Type	Perfluoroelastomer
Specific Gravity (D792)	2.00
Hardness, Shore A* (D2240)	80
Mechanical (ASTM Standard)	
Tensile Strength, psi (kPa) (D1414)	3425 (23610)
Elongation, % (D1414)	175
Tensile Modulus, psi (kPa)	
Modulus @ 50% Elongation (D1414)	450 (3103)
Modulus @ 100% Elongation (D1414)	1475 (10170)
Compression Set: 70 Hours @ 204°C @ 25% Deflection, % (D395)	20
Thermal	
Temperature Range**	10°F to 600°F (-12°C to 316°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.

\*\* Consult Greene Tweed for proper design guidelines in applications that exceed 482°F (250°C)

### Features and Benefits

- Broad chemical compatibility
- High temperature capability (up to 600°F/316°C)
- Excellent compression set maintains seal integrity in wide temperature and pressure variations as well as vibration
- Breadth of capabilities allows for standardization on one material and reduces inventory line items
- Longer and better seal integrity in seal applications
- Lower overall equipment cost of operation

### Applications

- Valve seals
- Fitting and union seals
- Gaskets
- Regulator seals
- Filter seals
- Dispensing seals

### Recommended Process Applications

- Wet etch (oxide, nitride, metal)
- Wet photoresist strip (acid, solvent)
- Wet cleaning (batch and single wafer)
- Photolithography track pre-cleaning
- Electrochemical plating

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

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.

08/18-GT DS-US-SC-166