

# Chemraz® 656

## Low Metallic Ion Content

Chemraz® 656 is a low durometer perfluoroelastomer primarily designed for bonded slit valve gates and special engineered applications such as low sealing forces/tolerance stackups where softer materials aid in the total seal solution. Developed from an advanced polymer using fluoropolymer nano-composite technology particles, Chemraz® 656 has very low metallic ion levels and offers unsurpassed resistance to today's advanced process chemistries. Chemraz® 656 is recommended for use in CVD, etch, and diffusion equipment applications.

Typical Properties	
<b>Physical Properties</b>	<b>Typical</b>
Color	Translucent
Polymer Type	Perfluoroelastomer
Specific Gravity	2.05
Hardness, Shore A*	70
<b>Mechanical</b>	
Tensile Strength, psi (kPa)	1504 (10370)
Elongation, %	238
<b>Tensile Modulus, psi (kPa)</b>	
Modulus @ 50% Elongation	209 (1441)
Modulus @ 100% Elongation	384 (2648)
Compression Set: 70 Hours @ 204°C @ 25% Deflection, %	24
<b>Thermal</b>	
Service Temperature Range	-4°F to 450°F (-20°C to 232°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

- Excellent plasma resistance
- Soft material for low sealing forces and tolerance stack-ups
- High purity, very low metallic ion content

### Applications

- Bonded slit valve gates
- Chamber seals
- Window seals
- Gas inlet seals
- Lid seals

### Recommended Process Applications

- Deposition (CVD, PECVD, RPCVD, HDPCVD, APCVD, SACVD, DCVD)
- Dry plasma etch
- Remote plasma cleans
- Dry ashing
- Oxidation (LPCVD)
- Diffusion
- Metalization (CVD, PVD, sputtering, evaporation)

### Contact Us

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