

Chemraz® SD625

Highest Performance Seals for Critical Pharma, Biotech, Cosmetic and Food Process Engineering

Material Description

Chemraz® SD625 is a black, synthetic, high-purity rubber with temperature and chemical compatibility similar to PTFE. Chemraz® SD625 parts have high service temperatures (up to 500°F/260°C), near-universal chemical compatibility, and extensive compliance coverage. Chemraz® SD625 is our best-performing seal material for pharma, biotech, cosmetic, and food processing applications.

Chemraz® SD625 seals have exceptional service life-times in steam-in-place (SIP) applications relative to FKM, silicone, and EPDM seals. Chemraz® SD625 o-rings and gaskets typically maintain sealing after thousands of steam sterilization cycles, orders of magnitude longer than other materials.

Typical Properties	
Physical Properties (ASTM Standard)	Typical
Color	Black
Specific Gravity (D297)	2.01
Hardness, Shore A (D2240)	80
Mechanical (ASTM Standard)	
Tensile Strength, psi (D1414)	3,545
Elongation, % (D1414)	135
Tensile Modulus, psi	
Modulus @ 50% Elongation (D1414)	790
Modulus @ 100% Elongation (D1414)	2,245
Compression Set, 70 Hours @ 400°F (204°C), 25% Deflection, % (D1414)	25
Thermal	
Minimum Service Temperature	-4°F (-20°C)
Maximum Service Temperature	500°F (260°C)



Compliance & Quality

Parts made from Chemraz® SD625 offer compliance for pharma, biotech, cosmetic, and food industries:

- Animal Derived, Ingredient-Free (ADI Free)
- FDA Food Contact Number (FCN) 245
- FDA 21 CFR 177.2400 (d), Extractive Limitations for Perfluorocarbon-Cured Elastomers
- USP <87> and <88> Class VI Biological Reactivity Tests
- 3-A 18-03, Product Contact Surfaces in Dairy Equipment, Sections C & D for Class I Rubber Material

Upon request, we can advise on Chemraz® SD625 compliance to other standards. When required, our experienced staff of rubber formulation experts can develop Chemraz® for additional compliance and performance requirements.

Greene Tweed manufactures parts from Chemraz® SD625 in a fully traceable ISO 9001:2015 quality management system (QMS) using validated, documented processes.

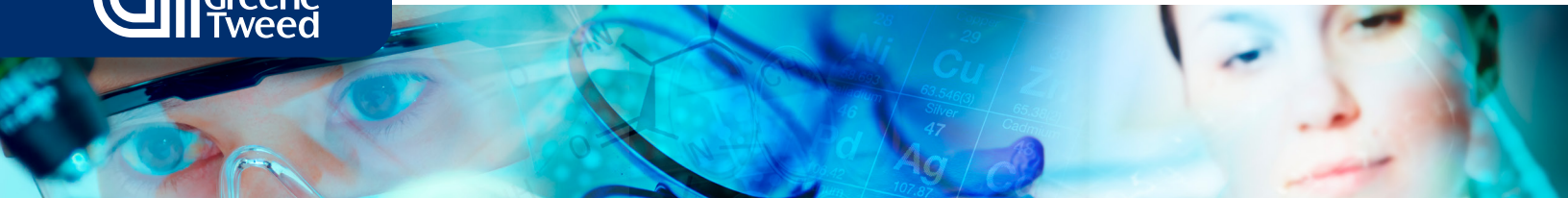
Contact Us

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Chemical Compatibility

Chemraz® SD625 offers exceptional chemical resistance. Greene Tweed has collected Chemraz® SD625 compatibility data, which can be viewed on our [website](#). Our application engineers can also advise on suitability for other compounds and conditions. [Contact us for more information.](#)

How to Use Chemraz® SD625

Chemraz® SD625 can be ordered as standard seals (e.g., o-rings, gaskets), sheets, and custom shapes, as well as parts of complex assemblies with other components.

Our team is ready to learn about your application and ensure your design or process succeeds. We offer exceptional support to our customers:

- Design and process guidance, optimization, and troubleshooting
- Rapid 3D printing form and fit prototypes
- Performance testing and documentation to support validation
- Validated manufacturing processes
- Change control agreements
- Manufacturing facility and quality system audits

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