

Chemraz® 605

High-Performance Seals for Critical Instruments

Material Description

Chemraz® is a black synthetic rubber used to make high-performance seals and flexible parts with chemical and thermal compatibility similar to PTFE. Chemraz® 605 is an ideal material for seals in in-vitro diagnostic (IVD), histology, analytical, and lab instrumentation.

Seals made from Chemraz® 605 maintain performance in nearly all relevant solvent and temperature combinations, typically for orders of magnitude longer than other seal materials, such as EPDM, silicone, or FKM.

Typical Properties				
Physical Properties (ASTM Standard)	Typical			
Color	Black			
Specific Gravity (D297)	1.97			
Hardness, Shore A (D2240)	80			
Mechanical (ASTM Standard)				
Tensile Strength, psi (D1414)	2,150			
Elongation, % (D1414)	130			
Tensile Modulus, psi				
Modulus @ 50% Elongation (D1414)	420			
Modulus @ 100% Elongation (D1414)	1,310			
Compression Set, 70 Hours @ 400°F (204°C), 25% Deflection, % (D395)	25			
Thermal				
Minimum Service Temperature	-4°F (-20°C)			
Maximum Service Temperature	500°F (260°C)			



Chemical Compatibility

Compared to other types of seals, Chemraz® 605 offers superior chemical compatibility. Greene Tweed has collected Chemraz® 605 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.



	Chemraz® 605	FKM	Silicone	EPDM
Hydrochloric Acid (HCI)	Excellent	Excellent	Poor	Poor
Sodium Hydroxide	Excellent	Good	Good	Excellent
Xylene & Limonene	Excellent	Good	Not Recommended	Not Recommended
Methanol	Excellent	Not Recommended	Excellent	Excellent
Acetonitrile	Excellent	Not Recommended	Good	Excellent
Steam (275°F/135°C)	Excellent	Good	Poor	Good

How to Use Chemraz® 605

Chemraz® 605 can be ordered as standard seals (e.g., o-rings, gaskets), sheets, or 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, troubleshooting
- Rapid 3D printing form and fit prototypes
- Performance testing and documentation to support validation efforts
- · Validated manufacturing processes
- · Change control agreements
- · Manufacturing facility and quality systems audits