



Improved Steam Resistant Chemraz® 694 Sealing Solutions

Compound No./Material Name: Chemraz® 694	Rubber Classification: FFKM	Service Temperature Range: 10°F to 600°F (-12°C to 316°C)	Color: Black
--	---------------------------------------	---	------------------------

Description		Typical
Original Properties (ASTM Standard)		
O-ring		
Specific Gravity (D792)		1.94
Hardness, Type A, Points (D2240)		87
Tensile Strength, psi [MPa] (D1414)		2,650 [18.2]
Elongation, % (D1414)		145
Modulus @ 50% Elongation, psi [MPa] (D1414)		1,100 [7.5]
Modulus @ 100% Elongation, psi [MPa] (D1414)		2,150 [14.8]
DSC, Tg, °F [°C]		25.6 [-3.54]
Slab (ASTM Standard)		
Tensile Strength, psi [MPa] (D412)		2,581 [17.8]
Elongation, % (D412)		143
Modulus @ 50% Elongation, psi [MPa] (D412)		1,247 [8.59]
Modulus @ 100% Elongation, psi [MPa] (D412)		2,238 [15.4]
TR 10/50, °F (°C)		23 [-5]
Tear Strength Die C, psi [MPa] (D624)		120 [0.82]
Air Aging (ASTM Standard)		
70 Hours @ 392°F (200°C)	Hardness Change, Type A, Points, Buttons (D2240)	-1
	Tensile Change, % (D412)	14
	Elongation Change, % (D412)	-3
70 Hours @ 550°F (288°C)	Hardness Change, Type A, Points, Buttons (D2240)	-2
	Tensile Change, % (D412)	-5
	Elongation Change, % (D412)	8
Compression Set @ 25% Deflection (ASTM Standard)		
22 Hours @ 392°F (200°C), In Air, % of Original Deflection, Buttons, % (D395)		11
70 Hours @ 392°F (200°C), In Air, % of Original Deflection, Buttons, % (D395)		13
70 Hours @ 392°F (200°C), In Air, % of Original Deflection, O-rings, % (D1414)		26
70 Hours @ 550°F (287°C), In Air, % of Original Deflection, O-rings, % (D1414)		56
CTE for Thermal Range -45°C to 290°C (-49°F to 554°F)		
Compound Below Tg µm/m°C [µin/in°F]		92.2 [51.2]
Compound Above Tg µm/m°C [µin/in°F]		298.2 [165.7]

Contact Us

Greene Tweed
Houston, TX, USA

Tel: +1.281.765.4500
Fax: +1.281.821.2696

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-GE-198



Compound No./Material Name: Chemraz® 694	Rubber Classification: FFKM	Service Temperature Range: 10°F to 600°F (-12°C to 316°C)	Color: Black
--	---------------------------------------	---	------------------------

Description		Typical
Steam Aging As Per D471 (ASTM Standard)		
1 Week @ 500°F (260°C)	Hardness Change, Type M, Points (D2240)	1
	Tensile Change, % (D1414)	-13
	Elongation Change, % (D1414)	18
	Modulus @ 100% Elongation, Change, % (D1414)	-21
	Volume Change, %	1
6 Weeks @ 500°F (260°C)	Hardness Change, Type M, Points (D2240)	-6
	Tensile Change, % (D1414)	-20
	Elongation Change, % (D1414)	12
	Modulus @ 100% Elongation, Change, % (D1414)	-34
	Volume Change, %	6
1 Week @ 600°F (316°C)	Hardness Change, Type M, Points (D2240)	-11
	Tensile Change, % (D1414)	-73
	Elongation Change, % (D1414)	-20
	Modulus @ 100% Elongation, Change, % (D1414)	-75
	Volume Change, %	29

Note
Unless otherwise noted, all tests performed on 214 o-rings.

Contact Us

Greene Tweed
Houston, TX, USA

Tel: +1.281.765.4500
Fax: +1.281.821.2696

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-GE-198