



# Chemraz® 541

## Universal Perfluoroelastomer (FFKM)

Compound No./Material Name: <b>Chemraz® 541</b>	Rubber Classification: <b>FFKM</b>	Service Temperature Range: <b>3°F to 446°F (-16°C to 230°C)</b>	Color: <b>Black</b>
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Description		ASTM Method	Unit	Typical
<b>Original Properties</b>				
Specific Gravity		D297	-	2
Hardness, Type A		D1414	points	76
Tensile Strength		D1414	psi	3009
Elongation		D1414	%	183
Modulus @ 100% Elongation		D1414	psi	1133
Modulus @ 50% Elongation		D1414	psi	410
<b>Compression Set</b>				
22 Hours @ 392°F (200°C), in Air, @ 25% deflection		D1414	% of Original Def	23
70 Hours @ 400°F (204°C) in Air @ 25% deflection		D1414	% of Original Def	27
22 Hours @ 392°F (200°C) in Air @ 25% deflection		D395	% of Original Def	8
<b>Coefficient of Thermal Expansion (CTE)</b>				
20 to 120°C		E831	µm/(m.°C)	302
120 to 220°C		E831	µm/(m.°C)	349
<b>Fluid Aging</b>				
70 hours @ 347°F (175°C) in Mobil Jet Oil II	Hardness Change, Type A, Button	D471	Points	-1
	Tensile Strength	D471	%	3.3
	Elongation	D471	%	6.6
	Volume Change	D471	%	0
70 hours @ Room Temperature in ASTM Ref. Fuel B	Hardness Change, Type A, Button	D471	Points	-1
	Tensile Strength	D471	%	2.3
	Elongation	D471	%	3.5
	Volume Change	D471	%	0
70 hours @ 250°F (121°C) in Distilled Water	Hardness Change, Type A, Button	D471	Points	0
	Tensile Strength	D471	%	-5.2
	Elongation	D471	%	5.5
	Volume Change	D471	%	1



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Description		ASTM Method	Unit	Typical
<b>Fluid Aging</b>				
70 hours @ 250°F (121°C) in Steam	Hardness Change, Type A, Button	D471	Points	-1
	Tensile Strength	D471	%	-8.8
	Elongation	D471	%	2.9
	Volume Change	D471	%	1
168 hours @ 250°F (121°C) in Reagent Grade Sulfuric Acid	Hardness Change, Type A, Button	D471	Points	-4
	Tensile Strength	D471	%	2.5
	Elongation	D471	%	-0.2
	Volume Change	D471	%	9
168 hours @ 302°F (150°C) in Diglycolamine	Hardness Change, Type A, Button	D471	Points	-2
	Tensile Strength	D471	%	-1
	Elongation	D471	%	31
	Volume Change	D471	%	6
<b>Outgassing</b>				
Outgassing @ 212°F (100°C)	Low Boilers C7 - C10	TD-GC-MS	ppmw	0
	Medium Boilers >C10 - C20	TD-GC-MS	ppmw	0
	High Boilers >C20	TD-GC-MS	ppmw	0
	Sum >=C7	TD-GC-MS	ppmw	0
Outgassing @ 392°F (200°C)	Low Boilers C7 - C10	TD-GC-MS	ppmw	0.70
	Medium Boilers >C10 - C20	TD-GC-MS	ppmw	6.20
	High Boilers >C20	TD-GC-MS	ppmw	1.20
	Sum >=C7	TD-GC-MS	ppmw	8.1

### Greene Tweed

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