

# Material Property Data Sheet

## N140-90



### N140-90 Sulfur Cured NBR

N140-90 is a high durometer Nitrile formula designed for high pressure sealing applications. This compound has a relatively high ACN content, making it exceptionally resistant to petroleum base oils and hydrocarbon fuels over a temperature range of -20F to +260F. N140-90 also demonstrates excellent tensile strength and abrasion resistance.

ASTM D2000 Designation	Physical Properties	Requirements	Typical Results
BG, CH	Original Properties		
	Durometer, Shore A, D2240, pts	90±5	87
	Tensile, D412, MPa (psi), Minimum	10 (1450)	18.5 (2683)
	Elongation, D412, % Minimum	100	177
	Specific Gravity, g/cm <sup>3</sup>	-	1.3
	Color	-	Black
	Heat Resistance, D573, 70 hrs @ 100°C		
	Durometer Change, Points	± 15	+3
	Tensile Strength Change, % Maximum	±30	+6
	Elongation Change, % Maximum	-50	-11
	Heat Resistance, D865, 70 hrs @ 125°C		
	Durometer Change, Points	+15	+3
	Tensile Strength Change, % Maximum	-25	+7
	Elongation Change, % Maximum	-50	-35
B14	Compression Set, D395, 22 hrs @ 100°C (Solid Button)		
	Deflection, % Maximum	25	10
EA14	Water Resistance, D471, 70 hrs @ 100°C		
	Durometer Change, Points	+/-10	-3
	Volume Change, % Maximum	+/-15	+3

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ASTM D2000 Designation	Physical Properties	Requirements	Typical Results
EF11	Fuel A Resistance, 70 hrs @ 23°C		
	Durometer Change, Points	+/-10	-1
	Tensile Change, % Maximum	-25	-2
	Elongation Change, % Maximum	-25	+2
	Volume Change, %	+10 / -5	+1
EF21	Fuel B Resistance, 70 hrs @ 23°C		
	Durometer Change, Points	0 / -30	-9
	Tensile Change, % Maximum	-60	-20
	Elongation Change, % Maximum	-60	-21
	Volume Change, % Maximum	+40 / 0	+24
EO14	Fluid Resistance, D471, IRM 901 Oil, 70 hrs @ 100°C		
	Durometer Change, Points	±5	+3
	Tensile Change, % Maximum	-25	+14
	Elongation Change, % Maximum	-45	-6
	Volume Change, %	+5 / -10	-5
EO15	Fluid Resistance, D471, IRM 901 Oil, 70 hrs @ 125°C		
	Durometer Change, Points	+10 / -0	+4
	Tensile Change, % Maximum	-20	-4
	Elongation Change, % Maximum	-35	-26
	Volume Change, %	+5 / -15	-7
EO34	Fluid Resistance, D471, IRM 903 Oil, 70 hrs @ 100°C		
	Durometer Change, Points	+5 / -10	-5
	Tensile Change, % Maximum	-45	+6
	Elongation Change, % Maximum	-45	+7
	Volume Change, % Maximum	+25 / 0	+15
EO35	Fluid Resistance, D471, IRM 903 Oil, 70 hrs @ 125°C		
	Durometer Change, Points	+/-10	-4
	Tensile Change, % Maximum	-15	+6
	Elongation Change, % Maximum	-30	-19
	Volume Change, % Maximum	+25 / -0	+8
Z1 (F15)	Low-Temp Resistance, D2137, Method C, 9.3.3		
	Nonbrittle after 3 min at -25°C	Pass	Pass
	Low Temperature Retraction		
	TR10, Degrees °C	-	-20

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### Specifications Met

ASTM D2000 M7BG 910 B14 EA14 EF11 EF21 EO14 EO34 Z1

ASTM D2000 M4CH 910 B14 EO15 EO35

REACH SVHC 235

RoHS 2015/863

California Proposition 65\*

Dodd-Frank Consumer Protection Act: No conflict materials (Tantalum, Tin, Tungsten & Gold)

\*This compound may contain trace amounts of these impurities included in California Prop 65:

Benz[a]anthracene 56-55-3

Benzo[b]fluoranthene 205-99-2

Benzo[j]fluoranthene 205-82-3

Benzo[k]fluoranthene 207-08-9

Benzo[a]pyrene 50-32-8

Chrysene 218-01-9

Dibenz[a,h]anthracene 53-70-3

Naphthalene 91-20-3

Indeno[1,2,3-cd]pyrene 193-39-5

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