

Material Property Data Sheet

N100-70



N100-70 Sulfur Cured NBR

N100-70 is Boyd's most commonly used formula for 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 -40F to +250F. N100-70 also demonstrates excellent tensile strength and abrasion resistance.

ASTM D2000 Designation	Physical Properties	Requirements	Typical Results
BG	Original Properties		
	Durometer, Shore A, D2240, pts	70+/-5	67
	Tensile, D412, MPa (psi), Minimum	14 (2031)	15.2 (2205)
	Elongation, D412, % Minimum	250	387
	Specific Gravity, g/cm ³	-	1.23
	Color	-	Black
A14	Heat Resistance, D573, 70 hrs @ 100°C		
	Durometer Change, Points	+/- 5	+3
	Tensile Strength Change, % Maximum	± 15	+5
	Elongation Change, % Maximum	-15	-8
B14	Compression Set, D395, 22 hrs @ 100°C (Solid Button)		
	Deflection, % Maximum	25	10
B34	Compression Set, D395, 22 hrs @ 100°C (Plied slabs)		
	Deflection, % Maximum	25	11
EA14	Water Resistance, 70 hrs @ 100°C		
	Durometer Change, Points	+/-10	-2
	Volume Change, %	+/-15	+3
EF11	Fuel A Resistance, 70 hrs @ 23°C		
	Durometer Change, Points	+/-10	-3
	Tensile Change, % Maximum	-25	-15
	Elongation Change, % Maximum	-25	+3
	Volume Change, %	+10 / -5	+1

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ASTM D2000 Designation	Physical Properties	Requirements	Typical Results
EF21	Fuel B Resistance, 70 hrs @ 23°C		
	Durometer Change, Points	-30	-15
	Tensile Change, % Maximum	-60	-30
	Elongation Change, % Maximum	-60	-6
	Volume Change, % Maximum	+40	+20
EO14	Fluid Resistance, D471, IRM 901 Oil, 70 hrs @ 100°C		
	Durometer Change, Points	+10 / -5	+3
	Tensile Change, % Maximum	-25	-11
	Elongation Change, % Maximum	-45	-8
	Volume Change, %	+5 / -10	-7
EO34	Fluid Resistance, D471, IRM 903 Oil, 70 hrs @ 100°C		
	Durometer Change, Points	+5 / -10	-3
	Tensile Change, % Maximum	-45	-24
	Elongation Change, % Maximum	-45	-12
	Volume Change, %	+35	+4
Z1	Low Temperature Retraction		
	TR10, Degrees °C, Maximum	-32	-33
Z2 (F16)	Low-Temp Resistance, D2137, Method C, 9.3.3		
	Nonbrittle after 3 min at -35°C	Pass	Pass

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Specifications Met

ASTM D2000 M2BG 714 B14 B34 EA14 EF11 EF21 EO14 EO34 Z1=TR10, Z2=F16

ASTM D2000 M4BG 714 A14 B14

ASTM D2000 M5BG 714 A14 B14 B34 EA14 EO14 EO34

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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