



Porter Seal Denver
558 E. Castle Pines Parkway,
Suite B4-318
Castle Pines, CO 80108
www.portersealdenver.com

Compound Technical Report Highly Saturated Nitrile 90 (HNBR)

This compound is exceptionally resistant to petroleum based oils and hydrocarbon fuels over a temperature range of -22° F to +302° F.

ASTM Designation	D2000 Specification	Actual Result
Original properties		
Durometer, Shore A	90 ± 5	91
Tensile, psi min.	2,900	3,375
Elongation, % min	100	159
A26 Heat age, 70 hrs @ 150° C		
Durometer change, points	± 10	+ 3
Tensile strength change, % max	- 25	- 6
Elongation change, % max	- 30	- 23
B16 Compression set, 22 hrs @ 100° C		
Original deflection, % Max.	30	19
C12 Resistance to ozone (50 pphm x 40C x 72 hrs)		
	Pass	Pass
EO16 IRM 901 oil, 70 hrs @ 150° C		
Durometer change, points	-5 / + 10	+ 2
Tensile change, % max	- 20	- 6
Elongation change, % max	- 30	- 16
Volume change, %	± 5	- 3.6
EO38 IRM 903 oil, 70 hrs @ 150° C		
Durometer change, points	- 15	- 8
Tensile change, % max	- 30	- 2
Elongation change, % max	- 30	- 4
Volume change, %	+ 25	+ 9.2

Specifications met: **ASTM D2000 M3DH 910 A26 B16 C12 EO16 EO38**