



## SPEC SEALS TECHNICAL REPORT HNBR-70 GREEN COLOR HYDROGENATED NITRILE COMPOUND

### GENERAL PROPERTIES

SPEC SEALS HNBR (Sometimes referred to as Highly Saturated Nitrile - HSN) offers a broad temperature range from -25F to +350F. HNBR is often used in automotive refrigeration systems using Freon 134A and in power steering seals using Type A Fluid. While HNBR is in the Nitrile family, it undergoes an expensive process to become HNBR. Nitrile is first dissolved in a solvent. A palladium catalyst is used and hydrogen gas hydrogenates the Nitrile.

		<b>SPEC SEALS HNBR-70</b>	
<u>ASTM Designation</u>	<u>ORIGINAL PROPERTIES</u>	<u>ASTM D2000 SPECIFICATION</u>	<u>LABORATORY PROPERTIES</u>
	Durometer, Shore A	70 +/- 5	73
	Tensile, psi (MPa), Minimum	1450 (10)	2247 (15.5)
	Elongation, % Minimum	200	292
	Specific Gravity	-	1.359
A26	<u>HEAT AGE, 70 HRS @ 150C</u>		
	Durometer Change, Points	+10	+7
	Tensile Strength Change, % Maximum	-25	+2
	Elongation Change, % Maximum	-30	-15
B16	<u>COMPRESSION SET, 22 HRS @ 150C</u>		
	Original Deflection, % Maximum	30 (Button)	13
E016	<u>ASTM #1 OIL, 70 HRS @ 150 C</u>		
	Durometer Change, Points	-5/+10	+1
	Tensile Change, % Maximum	-20	+16
	Elongation Change, % Maximum	-30	+1
	Volume Change, %	+/-5	-3.3
E036	<u>ASTM #3 (IRM 903)OIL, 70 HRS @ 150C</u>		
	Durometer Change, Points	-15	-6
	Tensile Change, % Maximum	-30	+3
	Elongation Change, % Maximum	-30	-5
	Volume Change, % Maximum	+25	+9.7

### SPECIFICATIONS MET

ASTM D2000-01 Grade M3DH710 A26 B16 E016 E036