

Data Sheet: HNBR90 AED

MATERIAL: HYDROGENATED NITRILE 90 SHORE AED (NORSOK M-710 APPROVED)

COLOUR: BLACK

GENERAL SERVICE TEMPERATURE RANGE: -30°C to 150°C

SPECIFICATION: ASTM D2000 M2DH920 A26 B16 B36 EO16 EO36 F17 Z1 Z2
Z1=36% ACN content Z2=TR test

PHYSICAL PROPERTIES	REQUIREMENT	TEST RESULT
HARDNESS, SHORE A	90+/-5	88
TENSILE STRENGTH, psi (MPa)	2900 (MIN)	4536(31.28)
ELONGATION, %	100 (MIN)	170
MODULUS @ 100% psi (MPa)	-	2612(18.01)
SPECIFIC GRAVITY	-	1.29

A26 HEAT AGEING 70hrs @ 150°C

HARDNESS CHANGE, POINTS	+10	-1
TENSILE STRENGTH CHANGE %	-25	-8
ELONGATION CHANGE %	-30	-13
WEIGHT CHANGE %		+0.4

B16 COMPRESSION SET 22 hrs @ 150°C, %	30 (button)	19.5
B36 COMPRESSION SET 22 hrs @ 150°C, %	50 (plied)	29.0

EO16 FLUID RESISTANCE, IRM 901 Oil 70 hrs @ 150°C

HARDNESS CHANGE, POINTS	-5/+10	-1
TENSILE STRENGTH CHANGE %	-20	-7
ELONGATION CHANGE %	-30	-5
VOLUME CHANGE %	+/-5	-0.7

EO36 FLUID RESISTANCE, IRM903 OIL 70hrs @150°C

HARDNESS CHANGE, POINTS	-15	-10
TENSILE STRENGTH CHANGE %	-40	-17
ELONGATION CHANGE %	-40	-16
VOLUME CHANGE %	+25	+11.5

F17 LOW TEMPERATURE BRITTLINESS POINT TEST

3mins @ -40°C	NO CRACKS	PASS
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Z2 LOW TEMPERATURE RETRACTION TEST (TR TEST)

TESTING ELONGATION 50%	Equipment of measurement: thermocouple	
LENGTH OF SAMPLE: 51 MM	Rate of Temperature increasing: 1°C/min	
TEST TEMPERATURE: 26°C	Coolant: Methanol	
TR10 °C		-16

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RESISTANCE OVERVIEW

SYNTHETIC AND MINERAL LUBRICANTS	Excellent
ALIPHATIC HYDROCARBONS	Excellent
AROMATIC HYDROCARBONS	Excellent
CHEMICAL RESISTANCE	Poor
ALCOHOL	Poor

PROVIDES GOOD ABRASION RESISTANCE.

The above test results are based on test slabs / buttons. The results from the actual parts may be different.

Issue Date: 22.04.2015