

# Data Sheet: HNBR90PC

## MATERIAL: HYDROGENATED NITRILE 90 SHORE PEROXIDE CURED

COLOUR: BLACK

GENERAL SERVICE TEMPERATURE RANGE: -40°C to 150°C

SPECIFICATION: ASTM D2000-M3DH910 A26 B16 C12 EO16 EO36 Z1 (Z1 = Tensile Strength, min 2900 psi)

PHYSICAL PROPERTIES	REQUIREMENT	TEST RESULT
HARDNESS SHORE A	90+/-5	87
TENSILE STRENGTH, psi	2900	3449
ELONGATION %	100	159
MODULUS @100%, psi (n/mm <sup>2</sup> )		2047
SPECIFIC GRAVITY		1.284

### HEAT AGEING 70hrs @ 150°C

HARDNESS CHANGE, POINTS	+10	+3
TENSILE STRENGTH CHANGE %	-25	0
ELONGATION CHANGE %	-30	-19

COMPRESSION SET 22hrs @ 150°C %	30	19
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### FLUID RESISTANCE, No.1 Oil 70hrs @ 150°C

HARDNESS CHANGE, POINTS	-5/+10	+2
TENSILE STRENGTH CHANGE %	-20	+4
ELONGATION CHANGE %	-30	-10
VOLUME CHANGE %	+/-5	-3.3

### FLUID RESISTANCE, IRM903. OIL 70hrs @150°C

HARDNESS CHANGE, POINTS	-15	-6
TENSILE STRENGTH CHANGE %	-30	-2
ELONGATION CHANGE %	-30	-6
VOLUME CHANGE %	+25	+9.5

OZONE RESISTANCE 50pphm 70hrs @ 40°C	NO CRACK	PASS
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### LOW TEMPERATURE BRITTLENESS

Non brittle after 3mins @ -40°C		PASS
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*The above test results are based on test slabs / buttons. The results from the actual parts may be different.*

Issue Date: 14.04.2014