

# Data Sheet: HNBR90 LT AED

## MATERIAL: HYDROGENATED NITRILE 90 SHORE LOW TEMPERATURE / ANTI-EXPLOSIVE DECOMPRESSION (NORSOK M-710 APPROVED)

This peroxide cured compound has 19% ACN content, with carbon black reinforcement. It provides low temperature capability and rapid gas decompression (RGD) resistance. NORSOK M-710 approved. NACE TM0187 Tested – Sour Fluid test.

**COLOUR:** BLACK

**GENERAL SERVICE TEMPERATURE RANGE:** -55°C to +160°C

PHYSICAL PROPERTIES	REQUIREMENT	TEST RESULT
HARDNESS SHORE A	ASTM D 2240	90
TENSILE STRENGTH, MPa	ASTM D 412	15
ELONGATION, %	ASTM D 412	120
SPECIFIC GRAVITY	ASTM D 297	1.30
<b>HEAT AGEING 94 hrs @ 150°C</b>		
HARDNESS CHANGE, POINTS	ASTM D 573	+5
TENSILE STRENGTH CHANGE, %		+10
ELONGATION CHANGE, %		-25
<b>COMPRESSION SET, METHOD B/1</b>		
24 hrs @ 150°C %	ASTM D 395	12
70 hrs @ 125°C %	ASTM D 395	21
70 hrs @ 150°C %	ASTM D 395	32
<b>FLUID RESISTANCE, PENTANE. 70 hrs @ 23°C</b>		
HARDNESS CHANGE, POINTS	ASTM D 471	-10
VOLUME CHANGE, %		+8.5
<b>FLUID RESISTANCE, PENTOSIN. 96 hrs @ 140°C</b>		
HARDNESS CHANGE, POINTS	ASTM D 471	-4
TENSILE STRENGTH CHANGE, %		-10
ELONGATION CHANGE, %		-15
WEIGHT CHANGE, %		+8.5
VOLUME CHANGE, %		+13.2
<b>FLUID RESISTANCE, IRM902. 168 hrs @ 100°C</b>		
HARDNESS CHANGE, POINTS	ASTM D 471	-8.5
TENSILE STRENGTH CHANGE, %		+17
ELONGATION CHANGE, %		+18
WEIGHT CHANGE, %		+10
VOLUME CHANGE, %		+11

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PHYSICAL PROPERTIES	REQUIREMENT	TEST RESULT
LOW TEMPERATURE TORSION MODULUS, T70	ASTM D 1329	-40°C
BRITTLE POINT °C	ASTM D 2137-A	-55

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

**Issue Date: 22.09.2014**