

# Data Sheet: HNBR90 AED LT

MATERIAL: HYDROGENATED NITRILE 90 SHORE AED  
 LOW TEMPERATURE – PEROXIDE CURED  
 NORSOK M710 EDITION 3 & – ISO 23936-2  
(RAPID GAS DECOMPRESSION RESISTANCE)

COLOUR: BLACK

COMPOUND H9120AA

GENERAL SERVICE TEMPERATURE RANGE: -55°C to +150°C (static)  
 -40°C to +130°C (dynamic)

SPECIFICATION: ASTM D2000 M2DH920 F19 Z1 Z2 Z3 Z4 Z5

| PHYSICAL PROPERTIES         | TEST METHOD           | REQUIREMENT | TEST RESULT  |
|-----------------------------|-----------------------|-------------|--------------|
| HARDNESS, SHOREA            | ASTM D2240-15         | 90±5        | 89           |
| TENSILE STRENGTH, PSI (MPa) | ASTM D412-16          | 2900 (MIN)  | 3753 (25.88) |
| ELONGATION, %               | ASTM D412-16          | 100 (MIN)   | 197          |
| MODULUS AT 100%, PSI (MPa)  | ASTM D412-16          |             | 2407 (16.6)  |
| DENSITY, mg/m <sup>3</sup>  | CNS 5341-96, METHOD A |             | 1.36         |

## COMPRESSION SET

|                 |                                |      |
|-----------------|--------------------------------|------|
| 70 hrs @ 150°C  | ASTM D395-03, METHOD B (PLIED) | 68.4 |
| 168 hrs @ 150°C | ASTM D395-03, METHOD B (PLIED) | 78.3 |

## LOW-TEMPERATURE BRITTLINESS POINT TEST

|                                        |                         |      |
|----------------------------------------|-------------------------|------|
| 3 MIN @ -55 °C                         | ASTM D2137-11, METHOD A |      |
| SAMPLE TYPE: T-50                      |                         |      |
| COOLANT: ISOPROPYL ALCOHOL             |                         |      |
| BRITTLINESS TEMPERATURE TO NEAREST 1°C | NO CRACK                | PASS |

## LOW TEMPERATURE RETRACTION TEST

|                                                    |               |       |
|----------------------------------------------------|---------------|-------|
| TESTING ELONGATION 50%                             |               |       |
| THE EQUIPMENT OF MEASURE TEMPERATURE: THERMOCOUPLE |               |       |
| LENGTH OF SAMPLE: 51 MM                            |               |       |
| RATE OF TEMPERATURE INCREASING: 1°C/MIN            |               |       |
| TEST TEMPERATURE: 26 °C                            |               |       |
| COOLANT: METHANOL                                  |               |       |
| TR10, °C                                           | ASTM D1329-08 | -34.3 |

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

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