

# Data Sheet: V90 AED Type B

## MATERIAL: VITON<sup>®</sup> 90 SHORE AED TYPE B NORSOK M-710 APPROVED

Provides low and stable compression set at high temperature.

**COLOUR:** BLACK

**GENERAL SERVICE TEMPERATURE RANGE:** -30°C to +250°C (Static)  
-15°C to +220°C (Dynamic)

**SPECIFICATION:** ASTM D2000 M2HK910 A1-10 B37 B38 EF31 F15 Z1 Z2  
Z1= No ACN content, 68.5% Fluorine content. Z2=TR Test

| PHYSICAL PROPERTIES       | REQUIREMENT | TEST RESULT  |
|---------------------------|-------------|--------------|
| HARDNESS SHORE A          | 90+/-5      | 92.5         |
| TENSILE STRENGTH, psi     | 1450        | 2055 (14.17) |
| ELONGATION, %             | 100         | 154          |
| MODULUS AT 100% psi (MPa) |             | 1432 (9.87)  |
| SPECIFIC GRAVITY          |             | 1.88         |

### A1-10 HEAT AGEING 70hrs @ 250°C

|                           |     |      |
|---------------------------|-----|------|
| HARDNESS CHANGE, POINTS   | +10 | 0    |
| TENSILE STRENGTH CHANGE % | -25 | -5   |
| ELONGATION CHANGE %       | -25 | +16  |
| WEIGHT CHANGE %           |     | -1.4 |

### B37 COMPRESSION SET, METHOD B

|                 |        |      |
|-----------------|--------|------|
| 22hrs @ 175°C % | 50 MAX | 33.2 |
|-----------------|--------|------|

### B38 COMPRESSION SET, METHOD B

|                 |        |    |
|-----------------|--------|----|
| 22hrs @ 200°C % | 50 MAX | 35 |
|-----------------|--------|----|

### EF31 FUEL RESISTANCE, FUEL C. 70hrs @ 23°C

|                           |       |      |
|---------------------------|-------|------|
| HARDNESS CHANGE, POINTS   | +/-5  | -3   |
| TENSILE STRENGTH CHANGE % | -25   | -3   |
| ELONGATION CHANGE %       | -20   | +1   |
| VOLUME CHANGE %           | 0/+10 | +1.9 |

### F15 LOW TEMPERATURE BRITTLINESS POINT TEST

|                |           |      |
|----------------|-----------|------|
| 3 MINS @ -25°C | NO CRACKS | PASS |
|----------------|-----------|------|

### 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 |  | -14.4 |
|--------|--|-------|

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## RESISTANCE OVERVIEW

|                                  |           |
|----------------------------------|-----------|
| SYNTHETIC AND MINERAL LUBRICANTS | EXCELLENT |
| ALIPHATIC HYDROCARBONS           | EXCELLENT |
| AROMATIC HYDROCARBONS            | EXCELLENT |
| CHEMICAL RESISTANCE              | GOOD      |
| ALCOHOL                          | POOR      |

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

**Issue Date: 22.04.2015**