

## Material Test Report

**Compound V90-B101**

**FKM, Black, General Purpose**

| Material Summary                                   |                                            |                 |
|----------------------------------------------------|--------------------------------------------|-----------------|
| Material Type:                                     | FLUOROCARBON RUBBER                        |                 |
| Durometer:                                         | 90                                         |                 |
| Color:                                             | Black                                      |                 |
| Special Properties:                                |                                            |                 |
| Recommended Temperature Range (Static):            | -25°C (-13°F) to 250°C (482°F)             |                 |
| Cure System:                                       | Bisphenol                                  |                 |
| Meets Specification:                               | ASTM D2000 M3HK914 A1-10 B37 B38 EF31 EO78 |                 |
| Original Properties                                | Requirements                               | Typical Results |
| Hardness, Shore A, pts, ASTM D2240-15              | 90±5                                       | 89              |
| Tensile Strength, psi, min, ASTM D412-16           | 2031 (min)                                 | 2368            |
| Elongation, min, %, ASTM D412-16                   | 100 (min)                                  | 135             |
| Modulus @ 100%, psi, ASTM D412-16                  |                                            | 1828            |
| Density, Mg/m <sup>3</sup> , CNS 5341-96, Method A |                                            | 1.84            |
| HEAT AGE, A1-A10 (70 hrs. @ 250°C)                 | Requirements                               | Typical Results |
| Hardness Change, pts, Shore A, ASTM D573-04        | +10(max)                                   | +3              |
| Tensile Strength Change, %, ASTM D573-04           | -25(max)                                   | -8              |
| Elongation Change, %, ASTM D573-04                 | -25(max)                                   | -13             |
| Weight Change, %                                   |                                            | -2.5            |
| COMPRESSION SET, B37 (22 hrs. @ 175°C)             | Requirements                               | Typical Results |
| ASTM D395-18, Method B                             | 30% (plied) (max)                          | 14.5            |
| COMPRESSION SET, B38 (22 hrs. @ 200°C)             | Requirements                               | Typical Results |
| ASTM D395-18, Method B                             | 50% (plied) (max)                          | 16.9            |
| FUEL C RESISTANCE, EF31 (70 hrs. @ 23°C)           | Requirements                               | Typical Results |
| Hardness Change, pts, Shore A, ASTM D471-16a       | ±5                                         | -3              |
| Tensile Strength Change, %, ASTM D471-16a          | -25(max)                                   | -12             |
| Elongation Change, %, ASTM D471-16a                | -20(max)                                   | -8              |
| Volume Change, %, ASTM D471-16a                    | 0~+10                                      | +2.8            |
| NO. 101 OIL, EO78 (70 hrs. @ 200°C)                | Requirements                               | Typical Results |
| Hardness Change, pts, Shore A, ASTM D471-16a       | -15~+5                                     | -8              |
| Tensile Strength Change, %, ASTM D471-16a          | -40 (max)                                  | -11             |
| Elongation Change, %, ASTM D471-16a                | -20 (max)                                  | +2              |
| Volume Change, %, ASTM D471-16a                    | 0~+15                                      | +7.6            |

Compound Previously Known As: V90101

Report Date: 6/23/2022

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