GLOBAL O-RING and SEAL
ALL-AROUND BETTER

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# Material Datasheet

## Compound #: N70-B105 — Nitrile (Buna), General Purpose

| Material Summary | | |
|---|---|---|
| Material Type: | NBR | |
| Durometer: | 70 | |
| Color: | Black | |
| Special Properties: | | |
| Recommended Temperature Range (Static): | -30ºC (-22ºF) to 100ºC (212ºF) | |
| Cure System: | Sulfur | |
| Meets Specification: | ASTM D2000 M2BG714 A14 B14 EA14 EF11 EF21 EO14 EO34 | |
| **Original Properties** | **Requirements** | **Typical Results** |
| Hardness,(shore A)(ASTM D2240-15$\varepsilon^1$) | 70±5 | 69 |
| Tensile Strength,psi(MPa)(ASTM D412-16) | 2031(14)(min) | 3008(20.74) |
| Elongation,(%)(ASTM D412-16) | 250(min) | 412 |
| Modulus at 100%,psi(MPa)(ASTM D412-16) | | 457(3.15) |
| Density,(Mg/m$^3$)(CNS 5341-96,Method A) | | 1.17 |
| **(A14) Heat age, 70 Hrs @ 100 ℃ (ASTM D573-04)** | **Requirements** | **Typical Results** |
| Hardness Change, pts. | ±15 | +2 |
| Tensile Strength Change, % | ±30 | -2 |
| Elongation Change, % | -50(max) | -18 |
| Weight Change, % | | -0.7 |
| **(B14) Compression set, 22 Hrs @ 100 ℃ (ASTM D395-18,Method B)** | **Requirements** | **Typical Results** |
| - | 25%(button)(max) | 11.0 |
| **(EA14) Water resistance, 70 Hrs @ 100 ℃ (ASTM D471-16a)** | **Requirements** | **Typical Results** |
| Hardness Change, pts. | ±10 | -3 |
| Tensile Strength Change, % | | -4 |
| Elongation Change, % | | -12 |
| Volume Change, % | ±15 | +4.1 |
| **(EF11) ASTM Fuel A Resistance, 70 Hrs @ 23 ℃ (ASTM D471-16a)** | **Requirements** | **Typical Results** |
| Hardness Change, pts. | ±10 | -3 |
| Tensile Strength Change, % | -25(max) | -9 |
| Elongation Change, % | -25(max) | -7 |
| Volume Change, % | -5~+10 | +1.1 |
| **(EF21) ASTM Fuel B Resistance, 70 Hrs @ 23 ℃ (ASTM D471-16a)** | **Requirements** | **Typical Results** |
| Hardness Change, pts. | -30~0 | -20 |
| Tensile Strength Change, % | -60(max) | -57 |
| Elongation Change, % | -60(max) | -52 |
| Volume Change, % | 0~+40 | +36.7 |

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| (EO14) IRM 901 Oil, 70 Hrs @ 100 ℃ (ASTM D471-16a) | Requirements | Typical Results |
|---|---|---|
| Hardness Change, pts. | -5~+10 | +1 |
| Tensile Strength Change, % | -25(max) | -5 |
| Elongation Change, % | -45(max) | -19 |
| Volume Change, % | -10~+5 | -0.7 |
| **(EO34) IRM 903 Oil, 70 Hrs @ 100 ℃ (ASTM D471-16a)** | **Requirements** | **Typical Results** |
| Hardness Change, pts. | -10~+5 | -7 |
| Tensile Strength Change, % | -45(max) | -12 |
| Elongation Change, % | -45(max) | -17 |
| Volume Change, % | 0~+25 | +11.8 |

Compound Previously Known As: N70190

Report Date: 12/28/2016