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# Marco Compound # B1125
## 70 Durometer, Black, Ultra Low Temperature Buna-N
## Technical Datasheet

**Common Names:**
**NBR** (acrylonitrile butadiene rubber)**, Buna-N, Nitrile.**

**General Description:**
Nitrile is the most commonly used general purpose o-ring material because of relative low cost, good mechanical properties, and basic resistance to many common lubricants. Marco compound B1125 is specially formulated for excellent low temperature resistance. Specific physical and chemical resistances vary by compound formulation.

**Features:**
- Higher performance, improved low temperature resistance compared to standard NBR
- Good/Excellent resistance to compression set and tear/abrasion.
- Good/Excellent resistance to many petroleum oils/greases, hydraulic fluids, alcohol, ambient water, silicone greases, Di-ester base lubricants and ethylene-glycol based fluids.

**Limitations:**
- Ozone, direct sunlight, UV, weathering, aromatic fuels, glycol-based brake fluids, polar solvents, non-flammable hydraulic fluids (HFD), aromatic/chlorinated hydrocarbons, ketones, esters, and aldehydes, 15 year shelf life.

**Service Temperature**:
-65 to 250°F

**Specification**:
ASTM D2000 M2BF714 A14 B14 EO14 EO34 F19

## PHYSICAL PROPERTY STANDARDS

| ORIGINAL PROPERTIES | ASTM D2000 Requirements | Typical Test Results |
|---|---|---|
| Hardness, Shore A, ASTM D2240 | 70 +/- 5 | 74 |
| Color | Black | Black |
| Tensile Strength, MPa (psi), ASTM D2240 | 14 (2030) min. | 14.2 (2060) |
| Ultimate Elongation, %, ASTM D412 | 250 min. | 274 |
| Specific Gravity | ----- | 1.211 |

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| **HEAT RESISTANCE –** A14, ASTM D 573 (70 hrs. @ 100°C) | **ASTM D2000 Requirements** | **Typical Test Results** |
|---|---|---|
| Hardness Change, points | -15 to +15 | +4 |
| Tensile Strength Change, % | -30 to +30 | +2 |
| Ultimate Elongation Change, % | -50 max. | +45 |

| **COMPRESSION SET –** B14, ASTM D 325 Method B (22 hrs. @ 100°C) | **ASTM D2000 Requirements** | **Typical Test Results** |
|---|---|---|
| Permanent Set, % | 25 max. | 10 |

| **FLUID RESISTANCE, ASTM #1 OIL –** EO14, ASTM D 471 (70 hrs. @ 100°C) | **ASTM D2000 Requirements** | **Typical Test Results** |
|---|---|---|
| Hardness Change, points | ±10 | +3 |
| Tensile Strength Change, % | -25 max. | +4 |
| Ultimate Elongation Change, % | -45 max. | -4 |
| Volume Change, % | -10 to +5 | -1 |

| **FLUID RESISTANCE, IRM 903 OIL –** EO14, ASTM D 471 (70 hrs. @ 100°C) | **ASTM D2000 Requirements** | **Typical Test Results** |
|---|---|---|
| Hardness Change, points | -20 | -15 |
| Tensile Strength Change, % | -45 max. | -32 |
| Ultimate Elongation Change, % | -45 max. | +33 |
| Volume Change, % | 0 to +60 | +30 |

| **LOW TEMPERATURE RESISTANCE –** F19, ASTM D 2137, Method A | **ASTM D2000 Requirements** | **Typical Test Results** |
|---|---|---|
| Non-brittle after 3 min. @ -55°C | Pass | Pass |