



**Marco Compound # M1000**  
 70 Durometer, Black, MIL-P-25732 Buna-N  
 Technical Datasheet

**Common Names:**

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

**General Description:**

Most commonly used general purpose o-ring material because of relative low cost, good mechanical properties, and basic resistance to many common lubricants. Specific physical and chemical resistances vary by compound formulation. M1000 is formulated to provide value with balance cost and performance. Please contact [engineering@marcorubber.com](mailto:engineering@marcorubber.com) for assistance in selecting a specialized compound when increased resistance to temperature, lubricants, or physical properties is required.

**Features:**

- Meets MIL-P-25732
- Meets low temperature requirements for hydraulics in military aircraft
- Relative low cost.
- 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 275° F

**Specification:**

ASTM D2000 M2BG706 B14 EO14 EO34 F17

**PHYSICAL PROPERTY STANDARDS**

ORIGINAL PROPERTIES	ASTM D2000 Requirements	Typical Test Results
Hardness, Shore A	70 +/- 5	72
Color	Black	Black
Tensile Strength, psi	870 min.	1,900
Ultimate Elongation, %	150 min.	180

HEAT RESISTANCE – A14, ASTM D 573 (70 hrs. @ 100°C)	ASTM D2000 Requirements	Typical Test Results
Hardness Change, points	+/- 15	+3
Tensile Strength Change, %	+/- 30	+6
Ultimate Elongation Change, %	-50 max.	-15

COMPRESSION SET – B14, ASTM D 325 Method B (22 hrs. @ 100°C)	ASTM D2000 Requirements	Typical Test Results
Permanent Set %	25 max.	13

FLUID RESISTANCE – ASTM Oil #1 – EO14, ASTM D 471(70 hrs. @ 100°C)	ASTM D2000 Requirements	Typical Test Results
Hardness Change, points	-5 to +10	10
Tensile Strength Change, %	-25 max.	15
Ultimate Elongation Change, %	-45 max.	-17
Volume Change, %	-10 to +5	-10

FLUID RESISTANCE – IRM 903 Oil – EO34, ASTM D 471 (70 hrs. @ 100°C)	ASTM D2000 Requirements	Typical Test Results
Hardness Change, points	-10 to +5	-8
Tensile Strength Change, %	-45 max.	+15
Ultimate Elongation Change, %	-45 max	-9
Volume Change, %	0 to +25	+9

LOW TEMPERATURE RESISTANCE – F17, ASTM D 2137 Method A, 9.3.2	ASTM D2000 Requirements	Typical Test Results
Non-brittle after 3 minutes at -40° C	Pass	Pass

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