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Marco Compound # B1122
70 Durometer, Black, NSF-51, Peroxide Cured 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. B1122 is Marco's NSF-51 compliant peroxide cured compound. Please contact engineering@marcorubber.com for assistance in selecting a specialized compound when increased resistance to temperature, lubricants, or physical properties is required.

Features:
- NSF-51 compliant
- 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.

Cure System:
Peroxide

Service Temperature:
-30 to 250° F
(Additional CPDs available with -65°F and +275°F service temps).

Specification:
ASTM D2000 M2BG714 B14 EA14 EF11 EF21 EO14 EO34 Z1 Z2 (Z1 = PEROXIDE, Z2 = NSF-51)

PHYSICAL PROPERTY STANDARDS

ORIGINAL PROPERTIES	ASTM D2000 Requirements	Typical Test Results
Hardness, Shore A	70 +/- 5	72
Color	Black	Black
Tensile Strength, MPa (psi)	14.1 (2030) min.	15.15 (2198)
Ultimate Elongation, %	250 min.	281
Specific Gravity	-----	1.250

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HEAT RESISTANCE – A14, ASTM D 573 (70 hrs. @ 100°C)	**ASTM D2000 Requirements**	**Typical Test Results**
Hardness Change, points	± 5	+3
Tensile Strength Change, %	± 30	-2.9
Ultimate Elongation Change, %	-50 max.	-29.8

COMPRESSION SET – B14, ASTM D 325 Method B (22 hrs. @ 100°C)	**ASTM D2000 Requirements**	**Typical Test Results**
Permanent Set %	25 max.	21.6

FLUID RESISTANCE, Water – EA14, ASTM D 471 (70 hrs. @ 100°C)	**ASTM D2000 Requirements**	**Typical Test Results**
Hardness Change, points	± 10	-7
Volume Change, %	± 15	+8.7

FLUID RESISTANCE – ASTM Fuel A – EF11, ASTM D 471(70 hrs. @ 23°C)	**ASTM D2000 Requirements**	**Typical Test Results**
Hardness Change, points	± 10	-5
Tensile Strength Change, %	-25 max.	-18.6
Ultimate Elongation Change, %	-25 max.	-10.6
Volume Change, %	-5 to +10	+3.1

FLUID RESISTANCE – ASTM Fuel B – EF21, ASTM D 471 (70 hrs. @ 23°C)	**ASTM D2000 Requirements**	**Typical Test Results**
Hardness Change, points	-30 to 0	-17
Tensile Strength Change, %	-60 max.	-27.8
Ultimate Elongation Change, %	-60 max	+4.1
Volume Change, %	0 to +40	+18.6

FLUID RESISTANCE –ASTM #1 Oil – EO14, ASTM D 471 (70 hrs. @ 100°C)	**ASTM D2000 Requirements**	**Typical Test Results**
Hardness Change, points	-5 to +10	+3
Tensile Strength Change, %	-25 max.	+3.6
Ultimate Elongation Change, %	-45 max.	-24.9
Volume Change, %	-10 to +5	-3.8

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	-6
Tensile Strength Change, %	-45 max.	-21.3
Ultimate Elongation Change, %	-45 max.	-22.4
Volume Change, %	0 to +25	+8.4