Request a Quote

(800) 775-6525
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Marco Compound # B1002
70 Durometer, Black, FDA Compliant 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. Please contact sales@marcorubber.com for assistance in selecting a specialized compound when increased resistance to temperature, lubricants, or physical properties is required.

Features:
- FDA Compliant
- 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.

Cure System:
Sulphur
(Peroxide cured CPDs available with improved physical, chemical, and thermal properties)

Service Temperature:
-30 to 250° F

Specification:
ASTM 2000 M2BG714 A14 B14 EA14 EO14 EO34 EF11 EF21

PHYSICAL PROPERTY STANDARDS

ORIGINAL PROPERTIES	ASTM D2000 Requirements	Typical Test Results
Hardness, Shore A	70 +/- 5	67
Color	Black	Black
Tensile Strength, psi	2,031	2,050
Ultimate Elongation, %	250	300

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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	+11
Ultimate Elongation Change, %	-50	-9

COMPRESSION SET – B14, ASTM D 395 Method B (22 hrs. @ 100°C)	**ASTM D2000 Requirements**	**Typical Test Results**
Permanent Set %	25	15

FLUID RESISTANCE, Water – EA14, ASTM D 471 (70 hrs. @ 100°C)	**ASTM D2000 Requirements**	**Typical Test Results**
Hardness Change, points	+/- 10	0
Volume Change, %	+/- 15	2

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	+7
Tensile Strength Change, %	-25	+13
Ultimate Elongation Change, %	-45	-12
Volume Change, %	-10 to 5	-7

FLUID RESISTANCE – IRM 903 Oil, -EO14, ASTM D 471 (70 hrs. @ 100°C)	**ASTM D2000 Requirements**	**Typical Test Results**
Hardness Change, points	-10 to 5	-7
Tensile Strength Change, %	-45	-14
Ultimate Elongation Change, %	-45	-12
Volume Change, %	0 to 25	6

FLUID AGING – FUEL A, - EF11, ASTM D 471 (70 hrs. @ 23°C)	**ASTM D2000 Requirements**	**Typical Test Results**
Hardness Change, points	+/- 10	-1
Tensile Strength Change, %	-25	-3
Ultimate Elongation Change, %	-25	-6
Volume Change, %	-5 to 10	2

FLUID AGING – 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	-37
Ultimate Elongation Change, %	-60	-41
Volume Change, %	0 to 40	27

Date: 2016-5-9