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Marco Compound # B1061
50 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. Marco compound B1061 is a reduced hardness 50 durometer FDA compliant compound. Specific physical and chemical resistances vary by compound formulation. Please contact engineering@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

Service Temperature:
-30 to 250° F

Specification:
ASTM 2000 M5BG508 A14 B14 EO14 EO34

PHYSICAL PROPERTY STANDARDS

ORIGINAL PROPERTIES	ASTM D2000 Requirements	Typical Test Results
Hardness, Shore A	50 +/- 5	53
Color	Black	Black
Tensile Strength, MPa	8.0	10.4
Ultimate Elongation, %	350	490

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HEAT RESISTANCE – A14, ASTM D 573 (70 hrs. @ 100°C)	**ASTM D2000 Requirements**	**Typical Test Results**
Hardness Change, points	+/- 15	+2
Tensile Strength Change, %	+/- 30	+11
Ultimate Elongation Change, %	-50	-1

COMPRESSION SET – B14, ASTM D 395 Method B (22 hrs. @ 100°C)	**ASTM D2000 Requirements**	**Typical Test Results**
Permanent Set %	25	12

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	+3
Tensile Strength Change, %	-25	+30
Ultimate Elongation Change, %	-45	+3
Volume Change, %	-10 to 5	-10

FLUID RESISTANCE – ASTM #3 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	-10
Tensile Strength Change, %	-45	-18
Ultimate Elongation Change, %	-45	-13
Volume Change, %	0 to 25	+14

Date: 2017-11-27