



Marco Compound # B1128

70 Durometer, Black, FDA and NSF-61 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. B1128 is formulated to be FDA and NSF-61 compliant. 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 and NSF-61 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.

Service Temperature:

-30 to 250° F

Specification:

ASTM D2000 M2BG714 EA14 EO14 EO34 F17 Z1 Z2 (Z1= FDA, Z2 = NSF-61)

PHYSICAL PROPERTY STANDARDS

ORIGINAL PROPERTIES	ASTM D2000 Requirements	Typical Test Results
Hardness, Shore A	70 +/- 5	70
Color	Black	Black
Tensile Strength, psi	2,030 min.	2527
Ultimate Elongation, %	250 min.	329

COMPRESSION SET – B14, ASTM D 325 Method B (22 hrs. @ 100°C)	ASTM D2000 Requirements	Typical Test Results
Permanent Set %	25 max.	12

FLUID RESISTANCE, Water – EA14, ASTM D 471 (70 hrs. @ 100°C)	ASTM D2000 Requirements	Typical Test Results
Hardness Change, points	+/- 10	-4
Volume Change, %	+/- 15	+11

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	+6
Tensile Strength Change, %	-25 max.	+4
Ultimate Elongation Change, %	-45 max.	-24
Volume Change, %	-10 to +5	-9

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	-4
Tensile Strength Change, %	-45 max.	-10
Ultimate Elongation Change, %	-45 max.	-19
Volume Change, %	-10 to +25	+10

LOW TEMPERATURE RESISTANCE – F17, ASTM D 2137 Method A, 9.3.2	ASTM D2000 Requirements	Typical Test Results
(Non-brittle after 3 min. @ -40°C)	Pass	Pass

EXTRACTION TEST – FDA CFR 21 177.2600 @ Reflux Temperature	ASTM D2000 Requirements	Typical Test Results
Total Extractives, first 7 hours, mg/in ²	20 max.	1.3
Total Extractives, succeeding 2 hours, mg/in ²	1 max.	0.7

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