

Marco Compound # B1011

70 Durometer, Black, Buna-N Internally Lubricated With PTFE

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. Marco's B1011 is formulated with PTFE powder mixed into the compound to provide lubrication and reduce friction. Please contact sales@marcorubber.com for assistance in selecting a specialized compound when increased resistance to temperature, lubricants, or physical properties is required.

Features:

- Internally lubricated with PTFE
- 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

(Additional CPDs available with -65°F and +275°F service temps).

Specification:

ASTM D2000 M5BG710 A14 B14 EO14 EO34 F17 Z1 (Z1 = Internal PTFE)

PHYSICAL PROPERTY STANDARDS

ORIGINAL PROPERTIES	ASTM D2000 Requirements	Typical Test Results
Hardness, Shore A	70 +/- 5	67
Color	Black	Black
Tensile Strength, MPa (psi)	10.0 (1,440) min.	15.0 (2,160)
Ultimate Elongation, %	250 min.	600

Information within is believed to be accurate and reliable. However, Marco Rubber makes no warranty, expressed or implied, that parts supplied in this material will perform satisfactorily in specific applications. It's the customer's responsibility to evaluate prior to use.

HEAT RESISTANCE – A14, ASTM D 573 (70 hrs. @ 100°C)	ASTM D2000 Requirements	Typical Test Results
Hardness Change, points	+/- 15	+2
Tensile Strength Change, %	- 20	0
Ultimate Elongation Change, %	-40 max.	-28

COMPRESSION SET – B14, ASTM D 325 Method B (22 hrs. @ 100°C)	ASTM D2000 Requirements	Typical Test Results
Permanent Set %	25 max.	17

FLUID RESISTANCE –ASTM #1 Oil – EO14, ASTM D 471 (70 hrs. @ 100°C)	ASTM D2000 Requirements	Typical Test Results
Hardness Change, points	-5 to +15	-2
Tensile Strength Change, %	-25 max.	+12
Ultimate Elongation Change, %	-45 max.	+2
Volume Change, %	-10 to +5	-4

FLUID RESISTANCE – IRM 903 Oil, -EO34, ASTM D 471 (70 hrs. @ 100°C)	ASTM D2000 Requirements	Typical Test Results
Hardness Change, points	0 to -15	-14
Tensile Strength Change, %	-45 max.	-7
Ultimate Elongation Change, %	-45 max.	-2
Volume Change, %	0 to +35	+19

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

Date: 2016-7-1