

Marco Compound # M1008

70 Durometer, Black, AMS-R-7362D Buna-N Technical Datasheet

Common Names:

NBR (acrylonitrile butadiene rubber), **Buna-N**, **Nitrile**.

General Description:

NBR is the 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. M1009 is formulated to provide value with balance cost and performance. Please contact sales@marcorubber.com for assistance in selecting a specialized compound when increased resistance to temperature, lubricants, or physical properties is required.

Features:

- Meets AMS-R-7362D Type 1, Grade 40 (MS29561)
- 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

Cure System:

Sulfur

(Peroxide cured CPDs available with improved physical, chemical, and thermal properties).

Service Temperature:

-60 to 200° F

PHYSICAL PROPERTY STANDARDS

ORIGINAL PROPERTIES	MIL-R-7362D Requirements	Typical Test Results
Hardness, Shore A	70 +/- 5	71
Color	Black	Black
Tensile Strength, psi	1,200 min.	1,700
Ultimate Elongation, %	250 min.	338
Specific Gravity	1.31 +/- .02	1.32

AIR AGED – ASTM D573 (70 hrs. @ 257°F)	MIL-R-7362D Requirements	Typical Test Results
Hardness Change, points	0 TO +20	+10
Tensile Strength Change, %	-20	+10
Ultimate Elongation Change, %	-60 max.	-42

COMPRESSION SET – AMS 3021 FLUID (70 hrs. @ 257°F)	MIL-R-7362D Requirements	Typical Test Results
Permanent Set %	50 max.	39

AMS 3021 OIL AGING – 70 hrs. @ 257°F	MIL-R-7362D Requirements	Typical Test Results
Hardness Change, points	+/- 10	No change
Tensile Change, % max.	-50	+2.1
Elongation change, % max.	-60	-30
Volume Change, %	+/- 15	+7.2
Cracking diam., Inches min.	1.75	None

CORROSION AND ADHESION – 14 Days @ 92% Humidity @ 75 +/- 5°F	MIL-R-7362D Requirements	Typical Test Results
Aluminum	None	None
Brass	None	Discoloration
Bronze	None	Slight Discolor
Steel	None	None

TEMPERATURE RETRACTION (TR-10)	MIL-R-7362D Requirements	Typical Test Results
Original, °F, max.	-40	-43
After Oil Age, °F, max.	-30	-38

COMPRESSION SET, 22 HRS. @ 257°F	MIL-R-7362D Requirements	Typical Test Results
Under 0.110 inch	60	
Over 0.110 inch	50	35.2

Date: 2016-7-1