Request a Quote

(800) 775-6525 Fax: (800) 421-2923
engineering@marcorubber.com
www.marcorubber.com

Marco Compound # B1020

70 Durometer, Black, UL Listed 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. B1020 is formulated to provide value with balanced cost and performance. Please contact engineering@marcorubber.com for assistance in selecting a specialized compound when increased resistance to temperature, lubricants, or physical properties is required.

Features:
- Specifically formulated for continuous service in automobile fuels; UL listed for conventional gasoline, kerosene, Liquid Petroleum Gas (LP Gas), Anhydrous Ammonia gas and liquid and Hydrocarbon Fuels
- Meets SAE 120 R1 Class II (fuel) Requirements.
- B1020 is specifically compatible with Diester Synthetic Lubricants.
- High and low temperature ranges
- 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 200° F

PHYSICAL PROPERTY STANDARDS

ORIGINAL PROPERTIES	Typical Test Results	ASTM Test Method
Hardness, Shore A	72	D2240
Color	Black	
Tensile Strength, psi	2024	D412
Ultimate Elongation, %	344	D412
Modulus at 100%, elongation	617	D412

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Fluid Aging, Diesel No. 2 70 hours at 125°C (257°F)	Typical Test Results	ASTM Test Method
Hardness Change, points, Shore A	9	D573
Tensile Strength Change, %	-7	D573
Ultimate Elongation Change, %	-53	D573
Volume Change, %	-6	D573

Fluid Aging, Bio Diesel (B100) 70 hours at 125°C (257°F)	Typical Test Results	ASTM Test Method
Hardness Change, points, Shore A	-2	D471
Tensile Strength Change, %	-44	D471
Ultimate Elongation Change, %	-60	D471
Volume Change, %	4	D471

Fluid Aging, 80% Diesel No. 2 / 20% Bio Diesel (B20) 70 hours at 125°C (257°F)	Typical Test Results	ASTM Test Method
Hardness Change, points, Shore A	4	D471
Tensile Strength Change, %	-25	D471
Ultimate Elongation Change, %	-49	D471
Volume Change, %	-5	D471

Fluid Aging, Diesel No. 2 70 hours at 23°C (73°F)	Typical Test Results	ASTM Test Method
Hardness Change, points, Shore A	-2	D471
Tensile Strength Change, %	-1	D471
Ultimate Elongation Change, %	2	D471
Volume Change, %	-1	D471

Fluid Aging, Bio Diesel (B100) 70 hours at 23°C (73°F)	Typical Test Results	ASTM Test Method
Hardness Change, points, Shore A	-7	D471
Tensile Strength Change, %	2	D471
Ultimate Elongation Change, %	0	D471
Volume Change, %	3	D471

Fluid Aging, 80% Diesel No. 2 / 20% Bio Diesel (B20) 70 hours at 23°C (73°F)	Typical Test Results	ASTM Test Method
Hardness Change, points, Shore A	-3	D471
Tensile Strength Change, %	-3	D471
Ultimate Elongation Change, %	2	D471
Volume Change, %	1	D471