

ROMAC INDUSTRIES, INC.

**NITRILE BUTADIENE RUBBER (NBR)
NSF 61 CERTIFIED RUBBER
GASKET MATERIAL**

SUBMITTAL INFORMATION

USE: Nitrile Butadiene Rubber, commonly known as NBR* or Buna-N, is formulated for hydrocarbon service. It is used extensively in the petroleum and natural gas industries, and in applications such as water, sewer, mineral oil, and vegetable oil.

CHARACTERISTICS:

| | |
|--------------------|--------------------------------|
| Temperature Range: | -40 ° F to +180 ° F Continuous |
| Weathering: | Fair |
| Abrasion: | Good |
| Compression Set: | Good |
| Tearing: | Good |

CHEMICAL RESISTANCE:**

| | |
|----------------|-----------|
| Natural Gas | Excellent |
| Methane | Excellent |
| Ethane | Excellent |
| Water | Excellent |
| Sewer | Excellent |
| Carbon Dioxide | Excellent |
| Gasoline | Excellent |

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SPECIFICATIONS:

Requirements of ASTM D 2000 MBG710Z

Vulcanizate Properties

Cure: 18 minutes at 315 °F (157.2 °C)

| <u>Stress-Strain and Hardness</u> | <u>Requirement</u> |
|-----------------------------------|--------------------|
| Tensile Strength, psi | 1450 |
| Elongation, % | 125 |
| Hardness, Duro A, pts | 85 ±5 |

Vulcanizate Properties (Continued)

| | |
|---|------------|
| ◦ Heat Resistance, ASTM D 573 70 hours at 212 °F (100°C) | |
| % change in Tensile Strength. | ±30 max |
| % change in Elongation. | -50 max |
| Change in Hardness. | ±15 points |

| | |
|--|----------|
| ◦ <u>Compression Set ASTM D 395,</u> Method D 395 solid | |
| 22 hours at 212 °F (100 °C) | 50 % max |

* NBR is equivalent to Rockwell (Smith-Blair) Grade 60 and Dresser Grade 42.

** NBR is resistant to a wide variety of chemicals. For applications involving materials not listed, contact Romac Industries, Inc. Other gasket compounds are available from Romac for use where NBR is not suitable.