# NITRILE BUTADIENE RUBBER (NBR) 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 MBK 710Z

Vulcanizate Properties
Cure: 18 minutes at 315 °F (157.2 °C)

| ◦ Stress-Strain and Hardness | Requirement |
|---|---|
| Tensile Strength, psi | 1450 |
| Elongation, % | 250 |
| Hardness, Duro A, pts | 75 ±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 |

◦ Compression Set ASTM D 395,
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.

9/04

Romac Document Number 45-8-0005
This information is based on the best data available at the date printed above, please check with Romac Engineering Department for any updates or changes.