

Ascend Sealing Technology Compound: N10190BL

Ascend Sealing has developed nitrile rubber (NBR) to be the most cost-effective compound, without sacrificing performance for general usage. Nitrile rubber is one of the most popular material for sealing application. We specially formulated N10190BL for good resistance to common chemicals and oils with ideal mechanical properties. As the for general purpose, N10190BL is a sulfur-cured compound with good balance between physical and chemical resistance.

Service Temperature: -30°F to 250°F (-34°C to 121°C)

Ascend Sealing provides a wide range of NBRs. For additional technical support, please contact us at [customer\\_service@ascendsealing.com](mailto:customer_service@ascendsealing.com).

### Compatible

- Dilute acids
- Silicone oils and greases
- Ethylene glycol
- Water to below 212°F (100°C)
- Petroleum based oils and fuels
- Aliphatic hydrocarbons
- Vegetable oils

### Incompatible

- Ozone / weathering / sunlight
- Ketones
- Aromatic hydrocarbons
- Strong acids
- Esters
- Ethers
- Automotive brake fluid
- Chlorinated hydrocarbons
- Phosphate ester hydraulic fluids

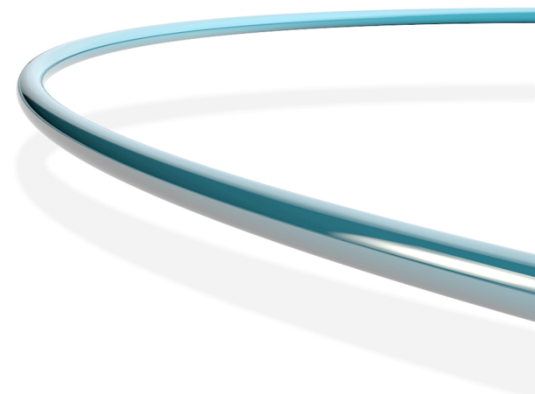
#### Ascend Sealing Technology Inc.

1211 Alderwood Ave, Sunnyvale, CA 94089

Tel: (408) 962-0126 | Fax: (408) 962-0485

Email: [customer\\_service@ascendsealing.com](mailto:customer_service@ascendsealing.com)

<https://www.ascendsealing.com/>



### Physical Properties

|            |  |
|------------|--|
| MATERIAL : | BUTADIENE ACRYLONITRILE COPOLYMER                      |
| COMPOUND : | N10190BL   |
| SPEC. :    | ASTM D2000 M2BG910 A14 B14 EA14 EF11 EF21 EO14 EO34 Z1 |
| COLOR :    | BLACK  |

| <u>Original Physical Properties</u>        | <u>Requirements</u> | <u>Results</u> |
|--|---------------------|----------------|
| Hardness, (Shore A) (ASTM D2240-05)        | 90±5                | 89             |
| Tensile Strength, psi(MPa) (ASTM D412-15a) | 1450(10)(min)       | 2119(14.61)    |
| Elongation, (%) (ASTM D412-15a)            | 100(min)            | 130            |
| Modulus at 100%, psi(MPa) (ASTM D412-15a)  |                     | 1775(12.24)    |
| Specific Gravity, (g/cm <sup>3</sup> )     |                     | 1.38           |

A14 Heat Age, 70 Hrs @ 100°C (ASTM D573-04)

|                            |          |      |
|----------------------------|----------|------|
| Hardness Change, pts.      | ±15      | +2   |
| Tensile Strength Change, % | ±30      | +12  |
| Elongation Change, %       | -50(max) | -13  |
| Weight Change, %           |          | -0.6 |

B14 Compression Set, 22 Hrs @ 100°C (ASTM D395-16, Method B)

|                  |     |
|------------------|-----|
| 25%(button)(max) | 5.1 |
|------------------|-----|

EA14 Water Resistance, 70 Hrs @ 100°C (ASTM D471-16a)

|                            |     |      |
|----------------------------|-----|------|
| Hardness Change, pts.      | ±10 | -1   |
| Tensile Strength Change, % |     | +8   |
| Elongation Change, %       |     | -12  |
| Volume Change, %           | ±15 | +3.2 |

EF11 ASTM Fuel A Resistance, 70 Hrs @ 23°C (ASTM D471-16a)

|                            |          |      |
|----------------------------|----------|------|
| Hardness Change, pts.      | ±10      | -1   |
| Tensile Strength Change, % | -25(max) | -5   |
| Elongation Change, %       | -25(max) | -11  |
| Volume Change, %           | -5~+10   | +1.0 |

EF21 ASTM Fuel B Resistance, 70 Hrs @ 23°C (ASTM D471-16a)

|                            |          |       |
|----------------------------|----------|-------|
| Hardness Change, pts.      | -30~0    | -15   |
| Tensile Strength Change, % | -60(max) | -25   |
| Elongation Change, %       | -60(max) | -28   |
| Volume Change, %           | 0~+40    | +26.2 |



Statement and recommendation provided in this data sheet correspond to Ascend Sealing Technology's best knowledge on the subject at the date of its publication. The user should conduct their own analysis and testing and is solely responsible for making the final selection of the system and component. Since Ascend Sealing Technology cannot anticipate all the application parameters in actual conditions, we do not guarantee the results and assume no liability in connection with any use of this information.

