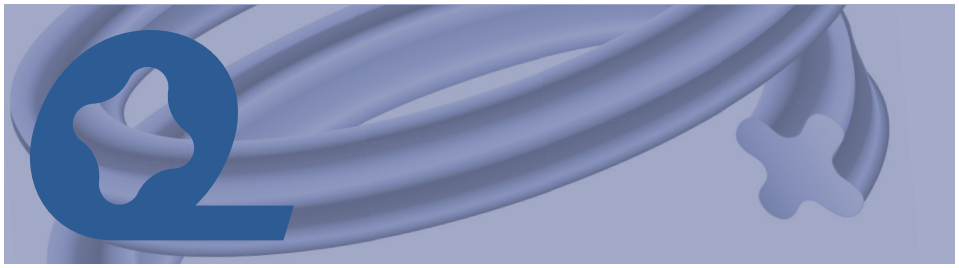
# NBR Elastomer Compound 477B

Minnesota Rubber & Plastics
Quadion LLC




## General Features

- Good compression set resistance
- Very good heat resistance
- Excellent resistance to petroleum oils, greases, and fuels
- Good low temperature performance

## Application

A general purpose NBR with good aging resistance for suitability in a variety of sealing applications.

477B exhibits excellent resistance to a wide range of petroleum products while providing excellent low temperature flexibility and sealing performance.

Quad-Ring® Brand Seals

Quad® Brand O-Ring Seals

Quad® Ground Rubber Balls

Equi-Flex™ Rod Wiper/ Scraper

## Original Properties

| Property | Unit | Required | Obtained | ASTM Test Method |
|---|---|---|---|---|
| Hardness | Shore A | 90 ± 5 | 88 | D 2240 |
| Tensile | MPa | 10 min | 17.7 | D 412 |
| Elongation at break | % | | 178 | D 412 |
| 100% Modulus | MPa | | 13.5 | D 412 |
| Tear Strength, Die C | kN/m | | 26.4 | D 624 |
| Specific Gravity | | | 1.35 | D 297 |

## Air Age

| Property | Unit | Obtained | ASTM Test Method |
|---|---|---|---|
| Change after 70h @ 100°C | | | D 573 |
| Δ Hardness | Shore A | 2 | |
| Δ Tensile | % | 0.7 | |
| Δ Elongation | % | -20.2 | |

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## Fluid Immersion

| Property | Unit | Obtained | ASTM Test Method |
|---|---|---|---|
| Reference Fuel A | | | |
| Change after 70h @ 23°C | | | D 471 |
| Δ Hardness | Shore A | -5 | |
| Δ Tensile | % | -8.7 | |
| Δ Elongation | % | -8.5 | |
| Δ Volume | % | 4.6 | |

| Property | Unit | Obtained | ASTM Test Method |
|---|---|---|---|
| Reference Fuel B | | | |
| Change after 70h @ 23°C | | | D 471 |
| Δ Hardness | Shore A | -16 | |
| Δ Tensile | % | -21.7 | |
| Δ Elongation | % | -0.5 | |
| Δ Volume | % | 16.8 | |

| Property | Unit | Obtained | ASTM Test Method |
|---|---|---|---|
| IRM 901 oil | | | |
| Change after 70h @ 100°C | | | D 471 |
| Δ Hardness | Shore A | 7 | |
| Δ Tensile | % | -0.1 | |
| Δ Elongation | % | -31.5 | |
| Δ Volume | % | -7.8 | |

| Property | Unit | Obtained | ASTM Test Method |
|---|---|---|---|
| IRM 903 oil | | | |
| Change after 70h @ 100°C | | | D 471 |
| Δ Hardness | Shore A | -1 | |
| Δ Tensile | % | 2.8 | |
| Δ Elongation | % | -21.3 | |
| Δ Volume | % | 3.8 | |

| Property | Unit | Obtained | ASTM Test Method |
|---|---|---|---|
| De-Ionized Water | | | |
| Change after 70h @ 100°C | | | D 471 |
| Δ Hardness | Shore A | -2 | |
| Δ Tensile | % | 1.4 | |
| Δ Elongation | % | -11.2 | |
| Δ Volume | % | 5 | |

| Property | Unit | Obtained | ASTM Test Method |
|---|---|---|---|
| De-Ionized Water | | | |
| Change after 70h @ 150°C | | | D 471 |
| Δ Hardness | Shore A | -3 | |
| Δ Volume | % | 5.1 | |

## Compression Set Resistance

| Property | Unit | Obtained | ASTM Test Method |
|---|---|---|---|
| | | | D 395, Method B |
| 22h @ 100°C | % | 20.1 | |
| 70h @ 100°C | % | 25 | |

Minnesota Rubber & Plastics
Quadion LLC
Leader in Advanced Technologies

To get a quote or order, please visit our website or contact one of our Customer Service Representatives
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