## NBR Elastomer Compound 523EU

General Features

Good compression
set resistance
Good heat resistance
Good resistance to petroleum oils, greases, and fuels

Excellent low-temperature
flexibility

## Application

A low-temperature flexible NBR with good aging resistance for suitability in a variety of sealing applications.

523EU exhibits good resistance
to wide range of petroleum products while providing excellent low-temperature
flexibility and sealing
performance.

ORIGINAL PROPERTIES

| Property | Unit | Nominal | Typical | ASTM Test <br> Method |
| :---: | :---: | :---: | :---: | :---: |
| Hardness | Shore A | $70 \pm 5$ | 71 | D 2240 |
| Tensile Strength | MPa | 10 min | 11.6 | D 412 |
| Elongation at <br> break | $\%$ |  | 200 | D 412 |
| 100\% Modulus | MPa |  | 4.9 | D 412 |
| Tear Strength, Die C | $\mathrm{kN} / \mathrm{m}$ |  | 22.2 | D 624 |
| Specific Gravity |  |  | 1.29 | D 297 |

Air Age, 70h @ $100^{\circ} \mathrm{C}$ per ASTM D 573

| Property | Unit | Typical |
| :---: | :---: | :---: |
| $\Delta$ Hardness | Shore A | 5 |
| $\Delta$ Tensile Strength | $\%$ | 8.1 |
| $\Delta$ Elongation | $\%$ | -14.5 |

## NBR Elastomer Compound 523EU

Reference Fuel A, 70h
@ $23^{\circ} \mathrm{C}$ per ASTM D 471

| Property | Unit | Typical |
| :---: | :---: | :---: |
| $\Delta$ Hardness | Shore A | -1 |
| $\Delta$ Tensile Strength | $\%$ | -6.9 |
| $\Delta$ Elongation | $\%$ | 8 |
| $\Delta$ Volume | $\%$ | 3 |

IRM 903 Oil, 70h @ $100^{\circ} \mathrm{C}$ per ASTM D 471

| Property | Unit | Typical |
| :---: | :---: | :---: |
| $\Delta$ Hardness | Shore A | -8 |
| $\Delta$ Tensile Strength | $\%$ | 6.9 |
| $\Delta$ Elongation | $\%$ | -8 |
| $\Delta$ Volume | $\%$ | 10 |

IRM 901 Oil, 70h @ $100^{\circ} \mathrm{C}$ per ASTM D 471

| Property | Unit | Typical |
| :---: | :---: | :---: |
| $\Delta$ Hardness | Shore A | 9 |
| $\Delta$ Tensile Strength | $\%$ | 16.9 |
| $\Delta$ Elongation | $\%$ | -12.5 |
| $\Delta$ Volume | $\%$ | -10 |

De-Ionized Water, 70h
@ $100^{\circ} \mathrm{C}$ per ASTM D 471

| Property | Unit | Typical |
| :---: | :---: | :---: |
| $\Delta$ Hardness | Shore A | -1 |
| $\Delta$ Tensile Strength | $\%$ | 3.3 |
| $\Delta$ Elongation | $\%$ | -12.5 |
| $\Delta$ Volume | $\%$ | 1.6 |

Compression Set Resistance, per ASTM D 395, Method B

| Property | Unit | Typical |
| :---: | :---: | :---: |
| $22 \mathrm{~h} @ 100^{\circ} \mathrm{C}$ | $\%$ | 8.9 |
| $70 \mathrm{~h} @ 100^{\circ} \mathrm{C}$ | $\%$ | 14.2 |

Low temperature

| Property | Typical | ASTM Test <br> Method |
| :---: | :---: | :---: |
| Glass Transition Temperature, ${ }^{\circ} \mathrm{C}$ | -66 | D 7426 |
| Temperature Retraction, $\mathrm{TR}^{\circ} 10,{ }^{\circ} \mathrm{C}$ | -52 | D 1329 |
| Non-brittleness, 3 min @ $-55^{\circ} \mathrm{C}$ | Pass | D 2137 |

## Contact us today to learn more

Our Global Manufacturing + Supply Chains
put you closer to your customers

