

General compound description

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| Material name, short description | NBR |
| Material name, based on technical standards | Acrylic-Butadiene-Rubber |
| Compound Code | NBR 90.10-03 |
| Material description / intended use | Elastomer with a good resistance against mineral and vegetable oils and greases, alkalis, alcohols, gas, water, glycolics and saline solutions. |
| Remarks | ASTM D2000 SAEJ200-M2 BG 910 A14 B14 EA14 EF11 EF21 EO14 EO34 F15 |

Mechanical properties

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| Density | 1.32 g/cm ³ ± 0.02 ISO 2781-A |
| Hardness | 90 Shore A ± 5 |
| Tensile strength | 18 MPa ISO 37-Typ 1 |
| Elongation at break | 165 % ISO 37-Typ 1 |
| Compression set | 12 % ASTM D 395-B 22 h, 100 °C, 25% deformation |
| | 30 % ASTM D 395-B 70 h, 125 °C, 25% deformation |
| Tear resistance | 50 N/mm ASTM D 624-B |

Chemical state change

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| Air aging | |
| Value change 1 | Hardness: +4 Points Tensile strength: +10 % Elongation at break: -28 % Test norm: ISO 188 Test parameter: 70 h, 100 °C |
| Storage in medium | |
| Value change 1 | Medium: Water ASTM Hardness: -1 Points Tensile strength: 0 % Elongation at break: -28 % Volume: +4.5 % Test norm: ISO 1817 Test parameter: 70 h, 100 °C |
| Value change 2 | Medium: IRM 901 Oil (ASTM 1) Hardness: +4 Points Tensile strength: +6 % Elongation at break: -30 % Volume: -8 % Test norm: ISO 1817 Test parameter: 70 h, 100 °C |
| Value change 3 | Medium: IRM 902 Oil (ASTM 2) Hardness: +5 Points Volume: -2 % Test norm: ISO 1817 Test parameter: 24 h, 100 °C |

Thermal properties

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| Min. operating temperature | -30 °C |
| Max. operating temperature | +100 °C |
| Note to operating temperature | approximate value, dependent of the application |
| TR 10 value | -23 °C ASTM D 1329 |
| Brittleness point | -25 °C ASTM D 2137-A |

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| Value change 4 | Medium: IRM 903 Oil (ASTM 3) Hardness: -2 Points Tensile strength: -5 % Elongation at break: -15 % Volume: +5 % Test norm: ISO 1817 Test parameter: 70 h, 100 °C |
| Value change 5 | Medium: ASTM Fuel A Hardness: 0 Points Tensile strength: -8 % Elongation at break: -7 % Volume: -0.5 % Test norm: ISO 1817 Test parameter: 70 h, 23 °C |