

Material

90 NBR 109

black

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Physical properties

| | nominal range | typical values | |
|---|----------------|----------------|-------------------|
| Density DIN EN ISO 1183-1 | 1.33 ±0.02 | 1.33 | g/cm ³ |
| Hardness DIN ISO 7619-1 | 90 ±5 | 90 | Shore |
| Rebound resilience DIN 53512 | --- | --- | % |
| Modulus 100 %, DIN 53504, S2 | 8 | 11.5 | MPa |
| Tensile strength DIN 53504, S2 | 10 | 12.6 | MPa |
| Elongation at break DIN 53504, S2 | 110 | 155 | % |
| Compression set DIN ISO 815, 22 h, 100 °C | --- | 25 | % |
| Low Temperature ISO 11357-2, DSC | --- | -26 | °C |
| Temperature range | -25°C to 100°C | | |

Declarations of conformity

| | Country | Part | Remark | Expires | unlimited |
|--------------|---------|------|--|---------|-------------------------------------|
| RoHS conform | | | including EU 2011/65 and EU2015/863 (ROHS III) | | <input checked="" type="checkbox"/> |

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Tested after ASTM D 2000: M 7 BG 910 B14 EA14 EF11 EF21 EO14 EO34

| | | nominal range | typical values |
|---|---------|------------------|-------------------|
| Hardness | Shore | 90 ±5 | 93 |
| Tensile strength | MPa | min. 10 | 14.5 |
| Elongation at break | % | min. 100 | 145 |
| Change after aging in Air 70h/100°C | | | |
| Hardness | Shore A | --- | 2 |
| Tensile strength | % | --- | 7 |
| Elongation at break | % | --- | -14 |
| B14 Compression set 22h/100°C | % | 25 | 21 |
| EA14 Change after aging in Distilled water 70h/100°C | | | |
| Hardness | Shore A | ±10 | -4 |
| Volume | % | ±15 | 6 |
| EF11 Change after aging in Fuel A 70h/23°C | | | |
| Hardness | Shore A | ±10 | -2 |
| Tensile strength | % | -25 | -15 |
| Elongation at break | % | -25 | -11 |
| Volume | % | -5 to 10 | 1.7 |
| EF21 Change after aging in Fuel B 70h/23°C | | | |
| Hardness | Shore A | 0 to -30 | -14 |
| Tensile strength | % | -60 | -45 |
| Elongation at break | % | -60 | -37 |
| Volume | % | 0 to 40 | 23 |
| EO14 Change after aging in IRM 901 70h/100°C | | | |
| Hardness | Shore A | ±5 | 5 |
| Tensile strength | % | -25 | -15 |

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| | | Elongation at break | % -45 | -25 |
| | | Volume | % -10 to 5 | -6 |
| EO34 Change after aging in IRM 903 70h/100°C | | | | |
| | | Hardness | Shore A -10 to 5 | -8 |
| | | Tensile strength | % -45 | -15 |
| | | Elongation at break | % -45 | -28 |
| | | Volume | % 0 to 25 | 11 |

The given values are based on a limited number of tests on standard test pieces (2mm sheets) produced in the laboratory. The data from finished parts can deviate from above values depending on the manufacturing process and the component geometry.

The data represents our present empirical values. It is incumbent on the person placing the order to examine whether it is suitable for its intended purpose, before using the product. All questions regarding the guarantee of this product are in line with our terms and conditions, inasmuch as statutory provisions do not plan for something else.

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