

Technical data sheet in accordance with ASTM

# Material

## NBR NB704604

black

cross linking: sulfur

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11/7/2017

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### Physical properties

|   | nominal range  | typical values |                   |
|---|----------------|----------------|-------------------|
| <b>Density</b><br>ASTM D 1817                         | 1.25 ±0.02     | 1.25           | g/cm <sup>3</sup> |
| <b>Hardness</b><br>ASTM D2240, Shore A                | 70 ±5          | 72             | Shore             |
| <b>Tensile strength</b><br>ASTM D412                  | ---            | 17.7           | MPa               |
| <b>Elongation at Break</b><br>ASTM D412               | ---            | 358            | %                 |
| <b>Tear strength</b><br>ASTM D 624, C                 | ---            | 48             | KN/m              |
| <b>Compression set</b><br>ASTM D 395, B, 22 h, 100 °C | ---            | 10             | %                 |
| <b>Compression set</b><br>ASTM D 395, B, 22 h, 125 °C | ---            | 16             | %                 |
| <b>Compression set</b><br>ASTM D 395, B, 70 h, 100 °C | ---            | 16             | %                 |
| <b>Temperature range</b>                              | -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"/> |

### Change after aging in Air: 70h/100°C

|                                 | Remark | Typ. values |             |            |
|---------------------------------|--------|-------------|-------------|------------|
|                                 |        | Base value  | After aging | difference |
| Hardness (ASTM D2240, Shore A)  | Shore  | 72          | 74          | 2          |
| Tensile strength (ASTM D412)    | MPa    | 17.7        | 18.6        | 5 %        |
| Elongation at Break (ASTM D412) | %      | 358         | 300         | -16 %      |

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### Change after aging in Fuel A: 70h/23°C

Hardness (ASTM D2240, Shore A)  
Tensile strength (ASTM D412)  
Elongation at Break (ASTM D412)  
volume change (ASTM D471)

|       | Base value | After aging | difference |
|-------|------------|-------------|------------|
| Shore | 72         | 70          | -2         |
| MPa   | 17.7       | 16.4        | -7 %       |
| %     | 358        | 318         | -11 %      |
| %     |            | -0.8        |            |

#### Typ. values

### Change after aging in Fuel B: 70h/23°C

Hardness (ASTM D2240, Shore A)  
Tensile strength (ASTM D412)  
Elongation at Break (ASTM D412)  
volume change (ASTM D471)

|       | Base value | After aging | difference |
|-------|------------|-------------|------------|
| Shore | 72         | 54          | -18        |
| MPa   | 17.7       | 12.9        | -27 %      |
| %     | 358        | 254         | -29 %      |
| %     |            | 22.3        |            |

#### Typ. values

### Change after aging in IRM 901: 70h/100°C

Hardness (ASTM D2240, Shore A)  
Tensile strength (ASTM D412)  
Elongation at Break (ASTM D412)  
volume change (ASTM D471)

|       | Base value | After aging | difference |
|-------|------------|-------------|------------|
| Shore | 72         | 78          | 6          |
| MPa   | 17.7       | 19.5        | 10 %       |
| %     | 358        | 300         | -16 %      |
| %     |            | -6.6        |            |

#### Typ. values

### Change after aging in IRM 903: 70h/100°C

Hardness (ASTM D2240, Shore A)  
Tensile strength (ASTM D412)  
Elongation at Break (ASTM D412)  
volume change (ASTM D471)

|       | Base value | After aging | difference |
|-------|------------|-------------|------------|
| Shore | 72         | 70          | -2         |
| MPa   | 17.7       | 17.9        | 1 %        |
| %     | 358        | 304         | -15 %      |
| %     |            | 3.6         |            |

#### Typ. values

### Change after aging in Water: 70h/100°C

Hardness (ASTM D2240, Shore A)  
Tensile strength (ASTM D412)  
Elongation at Break (ASTM D412)  
volume change (ASTM D471)

|       | Base value | After aging | difference |
|-------|------------|-------------|------------|
| Shore | 72         | 68          | -4         |
| MPa   | 17.7       | 18.1        | 2 %        |
| %     | 358        | 321         | -10 %      |
| %     |            | 4.8         |            |

#### Typ. values

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### **No ASTM D2000 properties available**

The given values are based on a limited number of tests on standard test pieces (2mm sheets). 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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