

Technical data sheet in accordance with ASTM

# Material

## NBR NB703412

black

cross linking: sulfur

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### Physical properties

|                                                   | nominal range  | typical values |                   |
|---------------------------------------------------|----------------|----------------|-------------------|
| <b>Density</b><br>ASTM D297                       | 1.28 ±0.02     | 1.28           | g/cm <sup>3</sup> |
| <b>Hardness</b><br>ASTM D2240, Shore A            | 70 ±5          | 73             | Shore             |
| <b>Tensile strength</b><br>ASTM D412              | ---            | 17.7           | MPa               |
| <b>Elongation at break</b><br>ASTM D412           | ---            | 473            | %                 |
| <b>Compression set</b><br>ASTM D395, 22 h, 100 °C | ---            | 9              | %                 |
| <b>Temperature range</b>                          | -40°C to 100°C |                |                   |

### Declarations of conformity

This overview is purely informative and does not constitute a declaration of conformity (DoC). Please refer to the actual declaration of conformity (DoC) including the conditions and its validity period.

|              | Country | Part | Remark                                         | Expires |
|--------------|---------|------|------------------------------------------------|---------|
| ADI Free     |         |      | see certificate                                | see DoC |
| RoHS conform |         |      | including EU 2011/65 and EU2015/863 (ROHS III) | see DoC |

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

|                                 |       | Typ. values |             |            |
|---------------------------------|-------|-------------|-------------|------------|
|                                 |       | Base value  | After aging | difference |
| Hardness (ASTM D2240, Shore A)  | Shore | 73          | 81          | 8          |
| Tensile strength (ASTM D412)    | MPa   | 17.7        | 19.5        | 10 %       |
| Elongation at break (ASTM D412) | %     | 473         | 406.7       | -14 %      |

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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)

Shore  
MPa  
%  
%

| Typ. values |             |            |  |
|-------------|-------------|------------|--|
| Base value  | After aging | difference |  |
| 73          | 74          | 1          |  |
| 17.7        | 18.1        | 2 %        |  |
| 473         | 501.3       | 6 %        |  |
|             | 0           |            |  |

### 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)

Shore  
MPa  
%  
%

| Typ. values |             |            |  |
|-------------|-------------|------------|--|
| Base value  | After aging | difference |  |
| 73          | 83          | 10         |  |
| 17.7        | 14.3        | -19 %      |  |
| 473         | 387.8       | -18 %      |  |
|             | 18          |            |  |

### 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)

Shore  
MPa  
%  
%

| Typ. values |             |            |  |
|-------------|-------------|------------|--|
| Base value  | After aging | difference |  |
| 73          | 81          | 8          |  |
| 17.7        | 20          | 13 %       |  |
| 473         | 439.8       | -7 %       |  |
|             | -7          |            |  |

### 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)

Shore  
MPa  
%  
%

| Typ. values |             |            |  |
|-------------|-------------|------------|--|
| Base value  | After aging | difference |  |
| 73          | 73          | 0          |  |
| 17.7        | 19.1        | 8 %        |  |
| 473         | 435.1       | -8 %       |  |
|             | 3           |            |  |

### 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)

Shore  
MPa  
%  
%

| Typ. values |             |            |  |
|-------------|-------------|------------|--|
| Base value  | After aging | difference |  |
| 73          | 73          | 0          |  |
| 17.7        | 17.5        | -1 %       |  |
| 473         | 425.7       | -10 %      |  |
|             | 3           |            |  |

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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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