

# Material

## 80 NBR 709

black

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### Physical properties

	nominal range	typical values	
<b>Density</b> DIN EN ISO 1183-1	1.26 ±0.02	1.27	g/cm <sup>3</sup>
<b>Hardness</b> DIN ISO 7619-1	80 ±5	80	Shore
<b>Rebound resilience</b> DIN 53512	> 20	29	%
<b>Modulus</b> 100 %, DIN 53504, S2	> 8	10.2	MPa
<b>Tensile strength</b> DIN 53504, S2	> 12	16.9	MPa
<b>Elongation at break</b> DIN 53504, S2	> 200	290	%
<b>Compression set</b> DIN ISO 815, 22 h, 100 °C	< 35	25	%
<b>Low Temperature</b> ISO 11357-2, DSC	---	-31	°C
<b>Temperature range</b>	static: -35°C to 100°C dynamic: -28°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
Conflict Mineral Free			see certificate	see DoC
Info ROHS and ELV			EU 2000/53 (ELV) including EU 2011/65 and EU2015/863 (ROHS III)	see DoC

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Tested after ASTM D 2000: M 6 BG 814 A14 B14 B34 EO14 EO34 F17

		nominal range	typical values
Hardness	Shore	80 ±5	80
Tensile strength	MPa	min. 14	16.5
Elongation at break	%	min. 125	280
<b>A14 Change after aging in Air 70h/100°C</b>			
Hardness	Shore A	±15	3
Tensile strength	%	-20	10
Elongation at break	%	-40	-17
<b>B14 Compression set 22h/100°C</b>	%	25	15
<b>B34 Compression set 22h/100°C</b>	%	25	18
<b>EO14 Change after aging in IRM 901 70h/100°C</b>			
Hardness	Shore A	-5 to 15	2
Tensile strength	%	-25	12
Elongation at break	%	-45	-3
Volume	%	-10 to 5	-3
<b>EO34 Change after aging in IRM 903 70h/100°C</b>			
Hardness	Shore A	0 to -20	-10
Tensile strength	%	-45	10
Elongation at break	%	-45	1
Volume	%	0 to 35	15
<b>F17 Low-temperature resistance after 3 min at -40 °C 3min./-40°C</b>		pass	

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 manufactories process and the component geometry.

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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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