

# Material

## 72 NBR 872

black

cross linking: sulfur

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Physical properties	nominal range	typical values	
<b>Density</b> DIN EN ISO 1183-1	1.21 ±0.02	1.21	g/cm <sup>3</sup>
<b>Hardness</b> DIN ISO 7619-1	72 ±5	72	Shore
<b>Micro hardness</b> DIN ISO 48 Verfahren M	72 ±5	70	IRHD
<b>Rebound resilience</b> DIN 53512	> 25	34	%
<b>Modulus</b> 100 %, DIN 53504, S2	> 4	6.5	MPa
<b>Tensile strength</b> DIN 53504, S2	> 14	16.5	MPa
<b>Elongation at break</b> DIN 53504, S2	> 250	295	%
<b>Compression set</b> DIN ISO 815, I, 24 h, 100 °C, 25 %	< 25	18	%
<b>Low Temperature</b> DIN 53765, DSC	---	-34	°C
<b>Torsions pendulum test</b> DIN 53445	---	-25	°C
<b>Temperature range</b>	static: -40°C to 100°C dynamic: -30°C to 100°C		

### Declarations of conformity

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

### Freudenberg

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Tested after ASTM D 2000: M 2 BG 714 B14 B34 EF11 EF21 EO14 EO34

		nominal range	typical values
Hardness	Shore	70 ±5	72
Tensile strength	MPa	min. 14	18
Elongation at break	%	min. 250	325
<b>Change after aging in Air 70h/100°C</b>			
Hardness	Shore A	---	3
Tensile strength	%	---	9
Elongation at break	%	---	-7
<b>B14 Compression set 22h/100°C</b>	%	25	11
<b>B34 Compression set 22h/100°C</b>	%	25	12
<b>EF11 Change after aging in Fuel A 70h/23°C</b>			
Hardness	Shore A	±10	-1
Tensile strength	%	-25	3
Elongation at break	%	-25	7
Volume	%	-5 to 10	2
<b>EF21 Change after aging in Fuel B 70h/23°C</b>			
Hardness	Shore A	0 to -30	-12
Tensile strength	%	-60	-28
Elongation at break	%	-60	-33
Volume	%	0 to 40	28.6
<b>EO14 Change after aging in IRM 901 70h/100°C</b>			
Hardness	Shore A	-5 to 10	5
Tensile strength	%	-25	18
Elongation at break	%	-45	5

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Volume		% -10 to 5	-8
<b>EO34 Change after aging in IRM 903 70h/100°C</b>			
Hardness		Shore A -10 to 5	-4
Tensile strength		% -45	-5
Elongation at break		% -45	-22
Volume		% 0 to 25	8

### Preferred area of application: o-rings, precision mouldings

The material doesn't contain halogenated components.

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.

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 provisons do not plan for something else.

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