

Material

50 NBR 842

black

cross linking: sulfur

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Physical properties

	nominal range	typical values	
Density DIN EN ISO 1183-1	1.13 ±0.02	1.13	g/cm ³
Hardness DIN ISO 7619-1	50 ±5	52	Shore
Rebound resilience DIN 53512	---	28	%
Modulus 100 %, DIN 53504, S2	> 1	1.4	MPa
Tensile strength DIN 53504, S2	> 14.5	18.4	MPa
Elongation at break DIN 53504, S2	> 500	660	%
Compression set DIN ISO 815, 22 h, 100 °C	< 35	26	%
Coefficient of permeability DIN 53536, 20 °C, Stickstoff	---	0.83	cm ³ (NTP) *mm/ (m ² *h*bar)
Coefficient of permeability DIN 53536, 80 °C, Stickstoff	---	23	cm ³ (NTP) *mm/ (m ² *h*bar)
Coefficient of permeability DIN 53536, 20 °C, Helium	---	8.5	cm ³ (NTP) *mm/ (m ² *h*bar)
Coefficient of permeability DIN 53536, 80 °C, Helium	---	79	cm ³ (NTP) *mm/ (m ² *h*bar)
Low Temperature DIN 53445 A, nach Torsionsschwingungsversuch	---	-17	°C
Temperature range	-20°C to 100°C		

Declarations of conformity

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Tested after ASTM D 2000: M 2 BG 514 B14 B34 EA14 EF11 EF21 EO14 EO34

		nominal range	typical values
Hardness	Shore	50 ±5	52
Tensile strength	MPa	min. 14	19.5
Elongation at break	%	min. 350	660
A14 Change after aging in Air 70h/100°C			
Hardness	Shore A	---	8
Tensile strength	%	---	-10
Elongation at break	%	---	-24
B14 Compression set 22h/100°C	%	25	20
B34 Compression set 22h/100°C	%	25	24
EA14 Change after aging in Distilled water 70h/100°C			
Hardness	Shore A	±10	0
Volume	%	±15	4
EF11 Change after aging in Fuel A 70h/23°C			
Hardness	Shore A	±10	0
Tensile strength	%	-25	-12
Elongation at break	%	-25	-2
Volume	%	-5 to 10	-0.5
EF21 Change after aging in Fuel B 70h/23°C			
Hardness	Shore A	0 to -30	-10
Tensile strength	%	-60	-50
Elongation at break	%	-60	-48
Volume	%	0 to 40	26

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EO14 Change after aging in IRM 901 70h/100°C

Hardness	Shore A	-5 to 10	8
Tensile strength	%	-25	-20
Elongation at break	%	-45	-29
Volume	%	-10 to 5	-8

EO34 Change after aging in IRM 903 70h/100°C

Hardness	Shore A	-10 to 5	1
Tensile strength	%	-45	-24
Elongation at break	%	-45	-20
Volume	%	0 to 25	1

Surface resistance R_o according to DIN IEC 93 / VDE 0303 part 30: $3,7 \times 10^9$

This material resists against domestic fuel oil very well.

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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