

Technical data sheet in accordance with ASTM

Material

NBR NB701809

black

cross linking: sulfur

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Physical properties

	nominal range	typical values	
Density CNS 5341-96	1.24 ±0.03	1.25	g/cm ³
Hardness ASTM D 2240-15, Shore A	70 ±5	72	Shore
Modulus 100 %, ASTM D412-16	---	6	MPa
Tensile strength ASTM D 412-16	> 14	17.7	MPa
Elongation at break ASTM D 412-16	> 250	275	%
Compression set ASTM D 395-18, Slab B, 22 h, 100 °C, button	< 25	9	%
Temperature range	-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
PFOA / PFOS 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 D573-04, Shore A)	Shore	72	74	2
Tensile strength (ASTM D573-04)	MPa	17.7	18.2	3 %
Elongation at break (ASTM D573-04)	%	275	236.5	-14 %
weight change	%		-1.3	

Freudenberg

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

Hardness (ASTM D471-16a, Shore A)
Tensile strength (ASTM D471-16a)
Elongation at break (ASTM D471-16a)
volume change (ASTM D471-16a)

Shore
MPa
%
%

Typ. values			
Base value	After aging	difference	
72	71	-1	
17.7	15.9	-10 %	
275	258.5	-6 %	
	0.9		

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

Hardness (ASTM D471-16a, Shore A)
Tensile strength (ASTM D471-16a)
Elongation at break (ASTM D471-16a)
volume change (ASTM D471-16a)

Shore
MPa
%
%

Typ. values			
Base value	After aging	difference	
72	58	-14	
17.7	11.9	-33 %	
275	187	-32 %	
	23.8		

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

Hardness (ASTM D471-16a, Shore A)
Tensile strength (ASTM D471-16a)
Elongation at break (ASTM D471-16a)
volume change (ASTM D471-16a)

Shore
MPa
%
%

Typ. values			
Base value	After aging	difference	
72	78	6	
17.7	18.4	4 %	
275	253	-8 %	
	-9.9		

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

Hardness (ASTM D471-16a, Shore A)
Tensile strength (ASTM D471-16a)
Elongation at break (ASTM D471-16a)
volume change (ASTM D471-16a)

Shore
MPa
%
%

Typ. values			
Base value	After aging	difference	
72	71	-1	
17.7	17.2	-3 %	
275	247.5	-10 %	
	0.9		

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

Hardness (ASTM D471-16a, Shore A)
Tensile strength (ASTM D471-16a)
Elongation at break (ASTM D471-16a)
volume change (ASTM D471-16a)

Shore
MPa
%
%

Typ. values			
Base value	After aging	difference	
72	68	-4	
17.7	17.5	-1 %	
275	247.5	-10 %	
	5.4		

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Tested after ASTM D 2000: M 2 BG 714 B14 EA14 EF11 EF21 EO14 EO34 Z1

		nominal range	typical values
Hardness	Shore	70 ±5	68
Tensile strength	MPa	min. 14	15.9
Elongation at break	%	min. 250	301
A14 Change after aging in Air 70h/100°C			
Hardness	Shore A	---	2
Tensile strength	%	---	-2
Elongation at break	%	---	-23
B14 Compression set 22h/100°C			
	%	25	7
EA14 Change after aging in Distilled water 70h/100°C			
Hardness	Shore A	±10	-2
Volume	%	±15	4.5
EF11 Change after aging in Fuel A 70h/23°C			
Hardness	Shore A	±10	0
Tensile strength	%	-25	8
Elongation at break	%	-25	-10
Volume	%	-5 to 10	0.6
EF21 Change after aging in Fuel B 70h/23°C			
Hardness	Shore A	0 to -30	-13
Tensile strength	%	-60	-34
Elongation at break	%	-60	-28
Volume	%	0 to 40	21
EO14 Change after aging in IRM 901 70h/100°C			
Hardness	Shore A	-5 to 10	8

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		Tensile strength	%	-25 3
		Elongation at break	%	-45 -15
		Volume	%	-10 to 5 -9.5
EO34 Change after aging in IRM 903 70h/100°C				
		Hardness	Shore A	-10 to 5 -1
		Tensile strength	%	-45 3
		Elongation at break	%	-45 -15
		Volume	%	0 to 25 0.5
Z1	Low temperature test ASTM D1329, TR10		°C	--- -31.9

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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