DICHTOMATIK

FREUDENBERG
INNOVATING TOGETHER

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/cm³
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
Info ROHS and ELV		EU 2000/53 (ELV) including EU 2011/65 and EU2015/863 (ROHS III)	see DoC
PFOA / PFOS free		see certificate	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

Freudenberg Industrial Services GmbH
Global Material Technology
Nadja Güldner

Telefon: -
Fax: -
Email: FIS.Compound.CRC@fst.com

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

		Typ. values		
		Base value	After aging	difference
Hardness (ASTM D471-16a, Shore A)	Shore	72	71	-1
Tensile strength (ASTM D471-16a)	MPa	17.7	15.9	-10 %
Elongation at break (ASTM D471-16a)	%	275	258.5	-6 %
volume change (ASTM D471-16a)	%		0.9	

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

		Typ. values		
		Base value	After aging	difference
Hardness (ASTM D471-16a, Shore A)	Shore	72	58	-14
Tensile strength (ASTM D471-16a)	MPa	17.7	11.9	-33 %
Elongation at break (ASTM D471-16a)	%	275	187	-32 %
volume change (ASTM D471-16a)	%		23.8	

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

		Typ. values		
		Base value	After aging	difference
Hardness (ASTM D471-16a, Shore A)	Shore	72	78	6
Tensile strength (ASTM D471-16a)	MPa	17.7	18.4	4 %
Elongation at break (ASTM D471-16a)	%	275	253	-8 %
volume change (ASTM D471-16a)	%		-9.9	

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

		Typ. values		
		Base value	After aging	difference
Hardness (ASTM D471-16a, Shore A)	Shore	72	71	-1
Tensile strength (ASTM D471-16a)	MPa	17.7	17.2	-3 %
Elongation at break (ASTM D471-16a)	%	275	247.5	-10 %
volume change (ASTM D471-16a)	%		0.9	

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

		Typ. values		
		Base value	After aging	difference
Hardness (ASTM D471-16a, Shore A)	Shore	72	68	-4
Tensile strength (ASTM D471-16a)	MPa	17.7	17.5	-1 %
Elongation at break (ASTM D471-16a)	%	275	247.5	-10 %
volume change (ASTM D471-16a)	%		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 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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