DICHTOMATIK

FREUDENBERG
SEALING TECHNOLOGIES

Material
80 NBR N801X

Version	Released on
01	29.10.2021

General Data

Colour:	Black
Type of cross-linking:	Sulfur

Physical Properties	**Nominal Range**	**Typical Value**	
Density ASTM D297, 23 °C		1.274	g/cm³
Hardness ASTM D2240, Shore A, 23 °C	80 ±5	82.3	Shore
Modulus 100 %, ASTM D412, C, 23 °C		8.8	MPa
Modulus 200 %, ASTM D412, C, 23 °C		16.2	MPa
Tensile strength ASTM D412, C, 23 °C	>10	16.66	MPa
Elongation at break ASTM D412, C, 23 °C	>125	202	%
Compression set ASTM D395, B, 22 h, 100 °C	<25	8	%
Low temperature ASTM D1329, TR10		-25.8	°C

This data sheet supersedes all previous versions. The content is subject to change without prior notice. 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 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.

Print date: 23.06.2026

Freudenberg Industrial Services GmbH
Global Material Technology
Email: FIS.Compound.CRC@fst.com

Material
80 NBR N801X

Version	Released on
01	29.10.2021

Tested after ASTM D 2000: M 6 BG 8 10 A14 B14 EO14 EO34 Z1 Z2 Z3 Z4 Z5 Z6 Z8

ASTM Property		Nominal Range	Typical Value
Hardness	Shore	80 ±5	82.3
Tensile strength	MPa	min. 10	16.66
Elongation at break	%	min. 125	202
A14 Air 70.00h/100.00°C			
Tensile strength	MPa	-20	4
Elongation at break	%	-40	-21
Hardness	Shore	±15	4.5
B14 22.00h/100.00°C			
Compression set	%	25	8
EO14 IRM 901 70.00h/100.00°C			
Tensile strength	MPa	-25	5
Elongation at break	%	-45	-22
Hardness	Shore	-5 to 15	8.1
Volume change	%	-10 to 5	-8.3
EO34 IRM 903 70.00h/100.00°C			
Volume change	%	0 to 35	4.7
Tensile strength	MPa	-45	-6
Hardness	Shore	0 to -20	-2.5
Elongation at break	%	-45	-17
Z1 ASTM D624, 23 °C, A			
Tear strength	KN/m		44.52
Z2 ASTM D412, 23 °C, C, 100 %			
Modulus	MPa		8.8

Freudenberg Industrial Services GmbH
Global Material Technology
Email: FIS.Compound.CRC@fst.com

Z3	***ASTM D412, 23 °C, C, 200 %***	
Modulus	MPa	16.2
Z4	***ASTM D297, 23 °C***	
Density	g/cm³	1.274
Z5	***ASTM D1329, TR10***	
Low temperature	°C	-25.8
Z6		
Hardness	Shore	-7.3
Tensile strength	%	0
Volume change	%	8.5
Elongation at break	%	-14
Z6	***ASTM D471, 23 °C***	
Hardness	Shore	-7.3
Tensile strength	%	0
Volume change	%	8.5
Elongation at break	%	-14
Z6	***ASTM D471, 23 °C, C***	
Hardness	Shore	-7.3
Tensile strength	%	0
Volume change	%	8.5
Elongation at break	%	-14
Z6	***ASTM D471, 23 °C, Shore A***	
Hardness	Shore	-7.3
Tensile strength	%	0
Volume change	%	8.5
Elongation at break	%	-14
Z8		
Hardness	Shore	-3.1
Tensile strength	%	-3
Volume change	%	1.5
Elongation at break	%	-6

Freudenberg Industrial Services GmbH
Global Material Technology
Email: FIS.Compound.CRC@fst.com

Z8 ASTM D471, 23 °C

Hardness	Shore	-3.1
Tensile strength	%	-3
Volume change	%	1.5
Elongation at break	%	-6

Z8 ASTM D471, 23 °C, C

Hardness	Shore	-3.1
Tensile strength	%	-3
Volume change	%	1.5
Elongation at break	%	-6

Z8 ASTM D471, 23 °C, Shore A

Hardness	Shore	-3.1
Tensile strength	%	-3
Volume change	%	1.5
Elongation at break	%	-6

This data sheet supersedes all previous versions. The content is subject to change without prior notice. 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 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.

Print date: 23.06.2026

Freudenberg Industrial Services GmbH
Global Material Technology
Email: FIS.Compound.CRC@fst.com

End of Document

Freudenberg Industrial Services GmbH
Global Material Technology
Email: FIS.Compound.CRC@fst.com