

Material

70 EPDM 281

black
cross linking: peroxidic

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Physical properties	required	actual	
Density DIN EN ISO 1183	1.09 ±0.02	1.10	g/cm ³
Hardness DIN ISO 7619-1, Shore A	70 ±5	74	Shore
Rebound resilience DIN 53512	> 35	46	%
Modulus 100 %, DIN 53504, S2	> 4	6	MPa
Tensile strength DIN 53504, S2	> 12	16.7	MPa
Elongation at break DIN 53504, S2	> 140	180	%
Compression set DIN ISO 815, B, 24 h, 100 °C, 25 %	< 20	12	%
Compression set DIN ISO 815, B, 24 h, 150 °C, 25 %	< 30	19	%
Compression set DIN ISO 815, B, 70 h, 150 °C, 25 %	< 35	27	%
Tear strength DIN 53515, Winkelprobe	> 6	11.1	KN/m
Low Temperature DIN 53765, DSC	---	-52	°C

Certificates	Country	Part	Remark	Expires	unlimited
3 A Sanitary					<input checked="" type="checkbox"/>
ACS	F	Seals		03 / 2018	<input type="checkbox"/>
ADI Free					<input checked="" type="checkbox"/>
Brennbarkeit UL 94 HB	D				<input checked="" type="checkbox"/>
FDA			21 CFR 177.2600		<input checked="" type="checkbox"/>
KTW	D	O-Ring	23 °C and 60 °C	12 / 2016	<input type="checkbox"/>
KTW	D	Seals	23 °C	07 / 2015	<input type="checkbox"/>
KTW	D	Seals	23 °C and 60 °C	05 / 2016	<input type="checkbox"/>
NSF 61	USA	O-Ring		01 / 2018	<input type="checkbox"/>
W 270	D	Seals		12 / 2016	<input type="checkbox"/>

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Tested after ASTM D 2000: M 3 DA 714 A26 B36 G11

		required	actual
Hardness	Shore	70 ±5	72
Tensile strength	MPa	min. 14	16
Elongation at break	%	min. 200	230
A26 Change after aging in Air 70h/150°C			
Hardness	Shore	10	4
Tensile strength	%	-20	-15
Elongation at break	%	-20	-15
B36 Compression set (plied) 22h/150°C	%	25	18
G11 Tear Resistance Die B 23°C	MPa	17	26

Not mineral oil resistant!

Change after aging in AdBlue (urea solution 35% in water) 85°C / 1000 h

Hardness: -1 Shore A
Volume change: + 9,7 %
Weight change: + 18,5 %
Modulus 100 %: + 13,0 %
Tensile strength: - 8 %
Elongation at break: - 13 %

Permeation Measurement at membrane:

		Ammoniac (microgr./ cm ² x day)
1 - layered	60 °C	22
2 - layered	80 °C	40
1 - layered	80 °C	195
1 - layered	100 °C	280

Temperature-range: dynamic - 40 °C to 150 °C
static - 50 °C to 150 °C

Application in water vapor to max. 150 °C short time 170 °C

Ozone resistance by 40 °C: to 200 pphm

BAM - Oxygen - Test: to 60 °C / 15 bar and from 60 °C to 90 °C / max. 10 bar

The composition of the material is conform to the regulation (EG) no. 1935/ 2004.

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Compliant with the EU-directives 2011/65/EC (RoHS) and 2002/95/EC (RoHS).

This material corresponds in its composition to the requirements of the FDA- regulation 21 CFR 177.2600.

NSF 61: maximum use: 2,0 sq.in./l / commercial hot temperature (180°F/82°C)

Elutable chlorides: ca. 5 ppm (24 h reflux boiled)

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.