Material
70 EPDM 291
black

cross linking: peroxidic

75 +- 5 Shore A at the test slab

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Not for new samples. Possible replacement material:
70 EPDM 291(DEV)

Physical properties	**nominal range**	**typical values**	
Density DIN EN ISO 1183-1, 23 °C	1.09 ±0.02	1.08	g/cm³
Hardness DIN ISO 7619-1, Shore A, 23 °C	75 ±5	77	Shore
Rebound resilience DIN 53512	> 35	46	%
Modulus 100 %, DIN 53504, S2, 23 °C	> 8	9.8	MPa
Tensile strength DIN 53504, S2, 23 °C	> 14	16.2	MPa
Elongation at break DIN 53504, S2, 23 °C	> 150	165	%
Compression set DIN ISO 815, B, 24 h, 100 °C, 25 %	< 15	10	%
Compression set DIN ISO 815, B, 24 h, 150 °C, 25 %	< 20	15	%
Compression set DIN ISO 815, B, 70 h, 150 °C, 25 %	< 30	24	%
Tear strength DIN ISO 34-1, Methode B	> 6	11.5	KN/m
Tear strength DIN ISO 34-1, Methode C	> 20	30	KN/m
Low Temperature ISO 11357-2, DSC	< -48	-50	°C
Low temperature test ASTM D1329, TR10	< -44	-46	°C

Temperature range

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

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ADI ANIMAL DERIVED INGREDIENT free CERTIFIED

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Declarations of conformity

	Country	Part	Remark	Expires	unlimited
(EG) 1935/2004	EU		food		☑
(EG) 2023/2006 (GMP)	EU		(EG) 2023/2006 (GMP)		☑
3-A Sanitary	USA	Seals	Class II	12 / 2022	☐
ADI Free			see certificate		☑
BFR XXI, Kat 4	DE		food		☑
BPA/Phthalate free			BPA/Phthalate free		☑
CMR Category 1A/1B free			see certificate		☑
FDA	USA	Seals	§ 177.2600		☑
Nano-free			see certificate		☑
NSF 51	USA	Seals	food		☑
NSF 61	USA	O-Ring	Drinking water		☑
Resolution AP (89) 1	EU	O-Ring	food		☑
RoHS conform			including EU 2011/65 and EU2015/863 (ROHS III)		☑
USP 36 NF 31 Ch. 381 Type 1		Seals			☑
USP Chapter 87 (In vitro)	USA	Seals			☑
USP Class VI Ch. 88 - 121 °C	USA	Seals			☑
USP Class VI Ch. 88 - 121 °C	USA	Seals	RFN-Behandlung		☑
WRAS BS 6920	GB	OR	85 °C	11 / 2022	☐

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Tested after ASTM D 2000: M 3 DA 814 A26 B36 EA14 F19 G11

			nominal range	typical values
	Hardness	Shore	80 ±5	77
	Tensile strength	MPa	min. 14	16.2
	Elongation at break	%	min. 150	165
A26	**Change after aging in Air 70h/150°C**			
	Hardness	Shore	10	2
	Tensile strength	%	-20	-8
	Elongation at break	%	-20	-7
B36	**Compression set (plied) 22h/150°C**	%	25	15
EA14	**Change after aging in Distilled water 70h/100°C**			
	Volume	%	±5	1.2
F19	**Low-temperature resistance after 3 min at -55 °C 3min./-55°C**		pass	pass
G11	**Tear Resistance Die B 23°C**	MPa	17	25

Not mineral oil resistant!

Application in water and water vapour to max. 180° C short time 210°C

ozone resistance in 40° C: to 1000 pphm

Assay according to DIN IEC 60093:

contact resistance 4,0 * 10^4 Ohm
surface resistance 2,5 * 10^4 Ohm

The O - rings coated with SCB 006 meet the requirements of (EG) 1935 / 2004 and the FDA - guidelines.

Specific characteristic and limitations for the use in food contact are set out in the corresponding declaration of conformities.

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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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