

Material 70 EPDM 291

black

cross linking: peroxidic
75 +- 5 Shore A at the test slab

revision index	revision date	page	1 / 4
36	1/17/2017		

Physical properties	nominal range	typical values	
Density DIN EN ISO 1183-1, 23 °C	1.09 ±0.02	1.08	g/cm ³
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		

Declarations of conformity

Freudenberg

Freudenberg FST GmbH
Global Material Technology
Daniel Danzer

Telefon: +49 6201 80 2182
Fax: +49 6201 88 2182
Email: Daniel.Danzer@fst.com



Material

70 EPDM 291

black

cross linking: peroxidic
75 +- 5 Shore A at the test slab

revision index	revision date		page		
36	1/17/2017		2 / 4		
	Country	Part	Remark	Expires	unlimited
(EG) 1935/2004	EU		food		<input checked="" type="checkbox"/>
(EG) 2023/2006 (GMP)	EU		(EG) 2023/2006 (GMP)		<input checked="" type="checkbox"/>
3-A Sanitary	USA	Seals	Class II	12 / 2021	<input type="checkbox"/>
ADI Free			see certificate		<input checked="" type="checkbox"/>
Arrete 9.Nov 1994	F	Seals	food		<input checked="" type="checkbox"/>
BFR XXI Cat.3	D	Seals	food	09 / 2022	<input type="checkbox"/>
BPA/Phthalate free			BPA/Phthalate free		<input checked="" type="checkbox"/>
CMR Category 1A/1B free			see certificate		<input checked="" type="checkbox"/>
FDA	USA	Seals	§ 177.2600		<input checked="" type="checkbox"/>
Nano-free			see certificate		<input checked="" type="checkbox"/>
NSF 51	USA	Seals	food		<input checked="" type="checkbox"/>
NSF 61	USA	O-Ring	Drinking water		<input checked="" type="checkbox"/>
Resolution AP (89) 1	EU	O-Ring	food		<input checked="" type="checkbox"/>
RoHS conform			including EU 2011/65 and EU2015/863 (ROHS III)		<input checked="" type="checkbox"/>
USP 36 NF 31 Ch. 381 Type 1		Seals			<input checked="" type="checkbox"/>
USP Chapter 87 (In vitro)	USA	Seals			<input checked="" type="checkbox"/>
USP Class VI Ch. 88 - 121 °C	USA	Seals			<input checked="" type="checkbox"/>
USP Class VI Ch. 88 - 121 °C	USA	Seals	RFN-Behandlung		<input checked="" type="checkbox"/>
WRAS BS 6920	GB	OR	85 °C	11 / 2022	<input type="checkbox"/>

Freudenberg

Freudenberg FST GmbH
Global Material Technology
Daniel Danzer

Telefon: +49 6201 80 2182
Fax: +49 6201 88 2182
Email: Daniel.Danzer@fst.com



Material 70 EPDM 291

black

cross linking: peroxidic
75 +- 5 Shore A at the test slab

revision index	revision date	page	3 / 4
36	1/17/2017		

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	°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 * 10⁴ Ohm
surface resistance 2,5 * 10⁴ 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.

Freudenberg

Freudenberg FST GmbH
Global Material Technology
Daniel Danzer

Telefon: +49 6201 80 2182
Fax: +49 6201 88 2182
Email: Daniel.Danzer@fst.com



Material 70 EPDM 291

black

cross linking: peroxidic
75 +- 5 Shore A at the test slab

revision index
36

revision date
1/17/2017

page 4 / 4

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.

Freudenberg

Freudenberg FST GmbH
Global Material Technology
Daniel Danzer

Telefon: +49 6201 80 2182
Fax: +49 6201 88 2182
Email: Daniel.Danzer@fst.com

