

Technical data sheet in accordance with ASTM

# Material

## EPDM EP703901

black

cross linking: peroxidic

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Physical properties	nominal range	typical values	
<b>Density</b> ISO 2781 A	1.14 ±0.03	1.14	g/cm <sup>3</sup>
<b>Hardness</b> ASTM D2240, Shore A, 23 °C	70 ±5	72	Shore
<b>Tensile strength</b> ISO 37	---	17	MPa
<b>Elongation at Break</b> ISO 37	---	210	%
<b>Modulus</b> 100 %, ISO 37	---	4.5	MPa
<b>Tear strength</b> ISO 34-1, B, 23 °C	---	11	KN/m
<b>Tear strength</b> ISO 34-1, C, 23 °C	---	32	KN/m
<b>Low temperature test</b> ISO 2921, TR10	---	-42	°C
<b>Low temperature test</b> ISO 2921, TR50	---	-23	°C
<b>Low-temperature resistance</b> ISO 812, Brittleness Point	---	-70	°C
<b>Glass Transition Temperature</b>	---	-55	°C
<b>Compression set</b> ISO 815 A, 70 h, 23 °C	---	10	%
<b>Compression set</b> DIN ISO 815 A, 22 h, 100 °C, 25 %	---	8	%
<b>Compression set</b> DIN ISO 815 A, 22 h, 125 °C, 25 %	---	10	%
<b>Compression set</b> DIN ISO 815 A, 70 h, 100 °C, 25 %	---	12	%

### Freudenberg

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<b>Compression set</b>		---	13	%
DIN ISO 815 A, 22 h, 150 °C, 25 %				
<b>Compression set</b>		---	24	%
DIN ISO 815 A, 70 h, 150 °C, 25 %				
<b>Compression set</b>		---	44	%
DIN ISO 815 A, 168 h, 150 °C, 25 %				
<b>Temperature range</b>	-50°C to 150°C			

### Declarations of conformity

	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"/>
ACS	F	O-Ring	Drinking water	05 / 2024	<input type="checkbox"/>
ADI Free			see certificate		<input checked="" type="checkbox"/>
BPA/Phthalate free			BPA/Phthalate free		<input checked="" type="checkbox"/>
CIP/SIP-Eignung	D		see certificate		<input checked="" type="checkbox"/>
DVGW Baumusterprüfzertifikat Wasser	D		DIN EN 681-1 WA/ WB	06 / 2021	<input type="checkbox"/>
FDA	USA	Seals	§ 177.2600		<input checked="" type="checkbox"/>
LFGB	D		XXI. recommendation		<input checked="" type="checkbox"/>
RoHS conform			including EU 2011/65 and EU2015/863 (ROHS III)		<input checked="" type="checkbox"/>
UBA Leitlinie	D			06 / 2021	<input type="checkbox"/>
USP Chapter 87 (in vitro)	USA		in vitro		<input checked="" type="checkbox"/>
USP Class VI Ch. 88 - 121 °C	USA		in vivo		<input checked="" type="checkbox"/>
W270	D			06 / 2021	<input type="checkbox"/>
WRAS BS 6920	GB			09 / 2023	<input type="checkbox"/>

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### Change after aging in Acetone: 24h/23°C

 Hardness (ASTM D2240, Shore A)  
 volume change (ISO 1817)  
 weight change

	Shore			
	72	66	-6	
	%	5		
	%	4		

**Typ. values**

Base value After aging difference

### Change after aging in AdBlue: 168h/55°C

 Hardness (ASTM D2240, Shore A)  
 Tensile strength (ISO 37)  
 Elongation at Break (ISO 37)  
 volume change (ISO 1817)

	Shore			
	72	71	-1	
	MPa	17	17.2	1 %
	%	210	214	2 %
	%		1	

**Typ. values**

Base value After aging difference

### Change after aging in Air: 70h/100°C

 Hardness (ASTM D2240, Shore A)  
 Tensile strength (ISO 37)  
 Elongation at Break (ISO 37)  
 volume change (ISO 188 B)  
 weight change

	Shore			
	72	73	1	
	MPa	17	15.6	-8 %
	%	210	184	-12 %
	%		-0.1	
	%		-0.1	

**Typ. values**

Base value After aging difference

### Change after aging in Air: 70h/125°C

 Hardness (ASTM D2240, Shore A)  
 Tensile strength (ISO 37)  
 Elongation at Break (ISO 37)  
 volume change (ISO 188 B)  
 weight change

	Shore			
	72	74	2	
	MPa	17	15.3	-10 %
	%	210	180	-14 %
	%		-0.2	
	%		-0.2	

**Typ. values**

Base value After aging difference

### Change after aging in Air: 1008h/125°C

 Hardness (ASTM D2240, Shore A)  
 Tensile strength (ISO 37)  
 Elongation at Break (ISO 37)  
 volume change (ISO 188 B)

	Shore			
	72	77	5	
	MPa	17	16	-6 %
	%	210	178	-15 %
	%		-1	

**Typ. values**

Base value After aging difference

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### Change after aging in Air: 70h/150°C

Hardness (ASTM D2240, Shore A)  
Tensile strength (ISO 37)  
Elongation at Break (ISO 37)  
volume change (ISO 188 B)  
weight change

	Base value	After aging	difference
Shore	72	76	4
MPa	17	15.3	-10 %
%	210	185	-12 %
%		-0.4	
%		-0.4	

#### Typ. values

### Change after aging in Glysantin G48 / dest. Wasser 50:50: 1008h/125°C

Hardness (ASTM D2240, Shore A)  
Tensile strength (ISO 37)  
Elongation at Break (ISO 37)  
volume change (ISO 1817)  
weight change

	Base value	After aging	difference
Shore	72	71	-1
MPa	17	16.3	-4 %
%	210	195	-7 %
%		2	
%		2	

#### Typ. values

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

Hardness (ASTM D2240, Shore A)  
Tensile strength (ISO 37)  
Elongation at Break (ISO 37)  
volume change (ISO 1817)  
weight change

	Base value	After aging	difference
Shore	72	71	-1
MPa	17	16.3	-4 %
%	210	195	-7 %
%		1.3	
%		1	

#### Typ. values

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### No ASTM D2000 properties available

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 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.

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