

Material Data Sheet

EPDM 70

EP70-SLS25

Compound Number: EP70-SLS25

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Colour Black Cure: Peroxide.

Compliant to FDA Regulation CFR 21 177-2600

Physical properties	nominal range	typical values	
Density ISO 2781 A	1.14 ±0.03	1.14	g/cm ³
Hardness ASTM D2240, Shore A, 23 °C	70 ±5	72	Shore
Tensile strength ISO 37	---	17	MPa
Elongation at Break ISO 37	---	210	%
Modulus 100 %, ISO 37	---	4.5	MPa
Tear strength ISO 34-1, B, 23 °C	---	11	KN/m
Tear strength ISO 34-1, C, 23 °C	---	32	KN/m
Low temperature test ISO 2921, TR10	---	-42	°C
Low temperature test ISO 2921, TR50	---	-23	°C
Low-temperature resistance ISO 812, Brittleness Point	---	-70	°C
Glass Transition Temperature	---	-55	°C
Compression set ISO 815 A, 70 h, 23 °C	---	10	%
Compression set DIN ISO 815 A, 22 h, 100 °C, 25 %	---	8	%
Compression set DIN ISO 815 A, 22 h, 125 °C, 25 %	---	10	%
Compression set DIN ISO 815 A, 70 h, 100 °C, 25 %	---	12	%
Compression set DIN ISO 815 A, 22 h, 150 °C, 25 %	---	13	%

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Compression set	---	24	%
DIN ISO 815 A, 70 h, 150 °C, 25 %			

Compression set	---	44	%
DIN ISO 815 A, 168 h, 150 °C, 25 %			

Temperature range -50°C to 150°C

		Typ. values		
		Base value	After aging	difference
Change after aging				
in Acetone: 24h/23°C				
Hardness (ASTM D2240, Shore A)	Shore	72	66	-6
volume change (ISO 1817)	%		5	
weight change	%		4	

		Typ. values		
		Base value	After aging	difference
Change after aging				
in AdBlue: 168h/55°C				
Hardness (ASTM D2240, Shore A)	Shore	72	71	-1
Tensile strength (ISO 37)	MPa	17	17.2	1 %
Elongation at Break (ISO 37)	%	210	214	2 %
volume change (ISO 1817)	%		1	

		Typ. values		
		Base value	After aging	difference
Change after aging				
in Air: 70h/100°C				
Hardness (ASTM D2240, Shore A)	Shore	72	73	1
Tensile strength (ISO 37)	MPa	17	15.6	-8 %
Elongation at Break (ISO 37)	%	210	184	-12 %
volume change (ISO 188 B)	%		-0.1	
weight change	%		-0.1	

		Typ. values		
		Base value	After aging	difference
Change after aging				
in Air: 70h/125°C				
Hardness (ASTM D2240, Shore A)	Shore	72	74	2
Tensile strength (ISO 37)	MPa	17	15.3	-10 %
Elongation at Break (ISO 37)	%	210	180	-14 %
volume change (ISO 188 B)	%		-0.2	
weight change	%		-0.2	

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

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

Typ. values			
Base value	After aging	difference	
72	77	5	
17	16	-6 %	
210	178	-15 %	
	-1		

Change after aging in Air: 70h/150°C

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

Typ. values			
Base value	After aging	difference	
72	76	4	
17	15.3	-10 %	
210	185	-12 %	
	-0.4		
	-0.4		

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

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

Typ. values			
Base value	After aging	difference	
72	71	-1	
17	16.3	-4 %	
210	195	-7 %	
	2		
	2		

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

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

Typ. values			
Base value	After aging	difference	
72	71	-1	
17	16.3	-4 %	
210	195	-7 %	
	1.3		
	1		

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 manufactures 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

Technical data sheet in accordance with ASTM

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	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 Type	D		DIN EN 681-1 WA/ WB	06 / 2021	<input type="checkbox"/>
Examination certificate					
FDA					
LFGB	USA	Seals	§ 177.2600		<input checked="" type="checkbox"/>
RoHS conform	D		XXI. recommendation		<input checked="" type="checkbox"/>
			including EU 2011/65 and		<input checked="" type="checkbox"/>
UBA Leitlinie			EU2015/863 (ROHS III)		
	D			06 / 2021	<input type="checkbox"/>
USP Chapter 87 (in vitro)	USA		in vitro		<input checked="" type="checkbox"/>
USP Class VI Ch. 88	USA		in vivo		<input checked="" type="checkbox"/>
-121 °C					
W270	D			06 / 2021	<input type="checkbox"/>
WRAS BS 6920	GB			09 / 2023	<input type="checkbox"/>