



DICHTOMATIK
Any seal. Any time.

a brand of
FREUDENBERG

Technical data sheet in accordance with ASTM

Material EPDM EP703901

black

cross linking: peroxidic

print date 10/6/2017 **revision index** 1 **revision date** 12/2/2016

page 1/5

Physical properties

	required	actual	
Density ISO 2781 A	1.14 ±0.03	1.14	g/cm ³
Hardness ASTM D2240, Shore A, 23 °C	70 ±5	70	Shore
Tensile strength ISO 37-2	---	17	MPa
Elongation at Break ISO 37-2	---	220	%
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, B, 70 h, 23 °C	---	9	%
Compression set DIN ISO 815, B, 22 h, 100 °C, 25 %	---	7	%
Compression set DIN ISO 815, B, 22 h, 125 °C, 25 %	---	9	%
Compression set DIN ISO 815, B, 70 h, 100 °C, 25 %	---	10	%
Compression set DIN ISO 815, B, 22 h, 150 °C, 25 %	---	13	%
Compression set DIN ISO 815, B, 70 h, 150 °C, 25 %	---	24	%

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page 2/5

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

Temperature range -50°C to 150°C

Certificates	Country	Part	Remark	Expires	unlimited
(EG) 2023/2006 (GMP)	EU		(EG) 2023/2006 (GMP)		☒
3-A Sanitary Standard Referenztest	USA		Class II		☒
ACS	F		ID > 63 mm	05 / 2019	☐
ADI Free					☒
CIP/SIP-Eignung	D		see certificate		☒
CLP	F		ID ≤ 63 mm	11 / 2017	☐
DVGW Baumusterprüfzertifikat Wasser	D		DIN EN 681-1 WA/ WB	06 / 2021	☐
FDA	USA	Seals	§ 177.2600		☒
LFGB	EU		XXI. recommendation		☒
RoHS			2015/863/EU and 2011/65/EU		☒
UBA Leitlinie	D			06 / 2021	☐
USP 32 Chapter 87 (in vitro)	USA		in vitro		☒
USP Class VI - 121 °Chapter 88 (in vivo)	USA				☒
W270	D			06 / 2021	☐
WRAS BS 6920	GB			08 / 2018	☐

Change after aging in Acetone: 70h/23°C

Hardness (ASTM D2240, Shore A, 23 °C)
volume change (ISO 188 B)

Shore
%

Typ. values		
base	after aging	difference
70	64	-6
	5	

Change after aging in Air: 70h/100°C

Hardness (ASTM D2240, Shore A, 23 °C)
Tensile strength (ISO 37-2, 23 °C)
Elongation at Break (ISO 37-2, 23 °C)

Shore
MPa
%

Typ. values		
base	after aging	difference
70	71	1
17	15.6	-8 %
220	193.6	-12 %

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page 3/5

Change after aging in Air: 70h/125°C

Hardness (ASTM D2240, Shore A, 23 °C)
Tensile strength (ISO 37-2, 23 °C)
Elongation at Break (ISO 37-2, 23 °C)

Shore
MPa
%

Typ. values		
base	after aging	difference
70	72	2
17	14.5	-15 %
220	187	-15 %

Change after aging in Air: 70h/150°C

Hardness (ASTM D2240, Shore A, 23 °C)
Tensile strength (ISO 37-2, 23 °C)
Elongation at Break (ISO 37-2, 23 °C)

Shore
MPa
%

Typ. values		
base	after aging	difference
70	74	4
17	12.8	-25 %
220	165	-25 %

Change after aging in Bremsflüssigkeit FIAT Tutela TOP 4: 70h/125°C

Hardness (ASTM D2240, Shore A, 23 °C)
volume change (ISO 188 B)

Shore
%

Typ. values		
base	after aging	difference
70	68	-2
	3	

Change after aging in Chloramine: 168h/70°C

Hardness (ASTM D2240, Shore A, 23 °C)
Tensile strength (ISO 37-2, 23 °C)
Elongation at Break (ISO 37-2, 23 °C)
volume change (ISO 188 B)

Shore
MPa
%
%

Typ. values		
base	after aging	difference
70	69.5	-1
17	16.5	-3 %
220	204.6	-7 %
	1	

Change after aging in Chloramine: 336h/70°C

Hardness (ASTM D2240, Shore A, 23 °C)
Tensile strength (ISO 37-2, 23 °C)
Elongation at Break (ISO 37-2, 23 °C)
volume change (ISO 188 B)

Shore
MPa
%
%

Typ. values		
base	after aging	difference
70	69	-1
17	14.1	-17 %
220	156.2	-29 %
	2.4	

Change after aging in Chloramine: 672h/70°C

Hardness (ASTM D2240, Shore A, 23 °C)
Tensile strength (ISO 37-2, 23 °C)
Elongation at Break (ISO 37-2, 23 °C)
volume change (ISO 188 B)

Shore
MPa
%
%

Typ. values		
base	after aging	difference
70	68.5	-2
17	12.6	-26 %
220	154	-30 %
	6.3	

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print date	revision index	revision date
10/6/2017	1	12/2/2016

page	4/5
-------------	-----

Change after aging in Distilled water: 70h/100°C

Hardness (ASTM D2240, Shore A, 23 °C)	Shore
Tensile strength (ISO 37-2, 23 °C)	MPa
Elongation at Break (ISO 37-2, 23 °C)	%
volume change (ISO 188 B)	%

Shore
MPa
%
%

Typ. values		
base	after aging	difference
70	69	-1
17	16.3	-4 %
220	204.6	-7 %
	1.3	

Change after aging in Wasser-Glysantin G48: 72h/110°C

Hardness (ASTM D2240, Shore A, 23 °C)	Shore
volume change (ISO 188 B)	%

Shore
%

Typ. values		
base	after aging	difference
70	69	-1
	2	

Change after aging in Wasser-Glysantin G48: 1008h/110°C

Hardness (ASTM D2240, Shore A, 23 °C)	Shore
volume change (ISO 188 B)	%

Shore
%

Typ. values		
base	after aging	difference
70	69	-1
	2	

Change after aging in Water vapor: 168h/180°C

Hardness (ASTM D2240, Shore A, 23 °C)	Shore
Tensile strength (ISO 37-2, 23 °C)	MPa
Elongation at Break (ISO 37-2, 23 °C)	%
volume change (ISO 188 B)	%

Shore
MPa
%
%

Typ. values		
base	after aging	difference
70	70	0
17	16.1	-5 %
220	225.7	3 %
	-0.2	

Change after aging in Water vapor: 504h/180°C

Hardness (ASTM D2240, Shore A, 23 °C)	Shore
Tensile strength (ISO 37-2, 23 °C)	MPa
Elongation at Break (ISO 37-2, 23 °C)	%
volume change (ISO 188 B)	%

Shore
MPa
%
%

Typ. values		
base	after aging	difference
70	77	7
17	11	-35 %
220	137.7	-37 %
	-0.9	

Change after aging in Water vapor: 24h/210°C

Hardness (ASTM D2240, Shore A, 23 °C)	Shore
Tensile strength (ISO 37-2, 23 °C)	MPa
Elongation at Break (ISO 37-2, 23 °C)	%
volume change (ISO 188 B)	%

Shore
MPa
%
%

Typ. values		
base	after aging	difference
70	70	0
17	12.3	-28 %
220	183	-17 %
	1.3	

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page 5/5

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 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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