

Technical data sheet in accordance with ASTM

Material

FKM FP809402

black

cross linking: bisphenolically

Fluorine 66%

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Physical properties

	nominal range	typical values	
Density IOS 1183-1/A	1.90 ±0.03	1.95	g/cm ³
Hardness ISO 7619-1, Shore A	80 ±5	85	Shore
Tensile strength ISO 37	---	12	MPa
Elongation at break ISO 37	---	186	%
Tear strength ISO 34-1/A	---	4.3	KN/m
Rebound resilience DIN 53512	---	30	%
Ozone Resistance ISO 1431-1, 50 °C, 70 h, 200 pphm, pass	---	0	Rating
Low temperature test ASTM D1329, TR10	---	-17	°C
Low Temperature resistance ASTM D2137/A, Brittleness	---	-12	°C
Low Temperature DBL 5555, DSC	---	-12	°C
Compression set ISO 815-1, Slab A, 24 h, 150 °C	---	14	%
Compression set ASTM D 395 B/1, 70 h, 200 °C, 25 %	---	20	%
Temperature range	-30°C to 220°C		short term: 250°C

Declarations of conformity

This overview is purely informative and does not constitute a declaration of conformity (DoC). Please refer to the actual declaration of conformity (DoC) including the conditions and its validity period.

Freudenberg

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 Global Material Technology
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Country Part

ADI Free

Info ROHS and ELV

Remark

see certificate

EU 2000/53 (ELV) including EU 2011/65 and
EU2015/863 (ROHS III)

Expires

see DoC

see DoC

Change after aging in Air: 1008h/150°C

Hardness (ISO 188, Shore A)
Tensile strength (ISO 188)
Elongation at break (ISO 188)
volume change (ISO 188)

Shore
MPa
%
%

Typ. values

Base value	After aging	difference
84.6	87.8	3
12	12.6	5 %
186.1	165.1	-11 %
	-0.4	

Change after aging in Air: 168h/250°C

Hardness (ASTM D573, Shore A)
Tensile strength (ASTM D573)
Elongation at break (ASTM D573)

Shore
MPa
%

Typ. values

Base value	After aging	difference
84.6	88.1	4
12	12.7	6 %
186.1	147	-21 %

Change after aging in Air: 70h/275°C

Hardness (ASTM D573, Shore A)
Tensile strength (ASTM D573)
Elongation at break (ASTM D573)

Shore
MPa
%

Typ. values

Base value	After aging	difference
84.6	90.1	6
12	13.2	10 %
186.1	132.1	-29 %

Change after aging in ASTM service fluid # 101: 70h/175°C

Hardness (ASTM D471, Shore A)
Tensile strength (ASTM D471)
Elongation at break (ASTM D471)
volume change (ASTM D471)

Shore
MPa
%
%

Typ. values

Base value	After aging	difference
84.6	77.6	-7
12	9.6	-20 %
186.1	214	15 %
	10	

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Change after aging in ASTM service fluid # 101: 70h/200°C

Hardness (ASTM D471, Shore A)
Tensile strength (ASTM D471)
Elongation at break (ASTM D471)
volume change (ASTM D471)

Shore
MPa
%
%

Typ. values			
Base value	After aging	difference	
84.6	75.1	-10	
12	9	-25 %	
186.1	214	15 %	
	13.2		

Change after aging in ASTM-Oil No. 3: 70h/150°C

Hardness (ASTM D471, Shore A)
Tensile strength (ASTM D471)
Elongation at break (ASTM D471)
volume change (ASTM D471)

Shore
MPa
%
%

Typ. values			
Base value	After aging	difference	
84.6	82.6	-2	
12	10.1	-16 %	
186.1	152.6	-18 %	
	1.5		

Change after aging in FAM A: 72h/23°C

Hardness (ISO 1817, Shore A)
Tensile strength (ISO 1817)
Elongation at break (ISO 1817)
volume change (ISO 1817)

Shore
MPa
%
%

Typ. values			
Base value	After aging	difference	
84.6	76.7	-8	
12		%	
186.1		%	
	8.7		

Change after aging in FAM B: 72h/23°C

Hardness (ISO 1817, Shore A)
Tensile strength (ISO 1817)
Elongation at break (ISO 1817)
volume change (ISO 1817)

Shore
MPa
%
%

Typ. values			
Base value	After aging	difference	
84.6	68.5	-16	
12		%	
186.1		%	
	26		

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

Hardness (ASTM D471, Shore A)
Tensile strength (ASTM D471)
Elongation at break (ASTM D471)
volume change (ASTM D471)

Shore
MPa
%
%

Typ. values			
Base value	After aging	difference	
84.6	82.6	-2	
12	12.7	6 %	
186.1	183.3	-2 %	
	1		

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Change after aging in Shell Helix 10w40: 1008h/150°C

Typ. values

Hardness (ISO 1817, Shore A)
Tensile strength (ISO 1817)
Elongation at break (ISO 1817)
volume change (ISO 1817)

Shore
MPa
%
%

Base value	After aging	difference
84.6	78.4	-6
12	8.8	-27 %
186.1	105	-44 %
	2.4	

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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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