

Datum / date 28.08.2018	Werkstoffdatenblatt material test report	
Revision / revision 1		
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Werkstoffnummer material number	119010305	Werkstofftyp material type	FKM 90
Farbe colour	schwarz black		

Eigenschaft property	Einheit unit	Prüfmethode test method	Prüfparameter test parameter	Wert value
hardness	Shore A	ASTM D 2240		90 ±5
specific gravity	g/cm ³	ASTM D 1817		1,82 ±0,03
tensile strength	MPa	ASTM D 412		20
ultimate elongation	%	ASTM D 412		150
tear resistance	N/mm	ASTM D 624 B		36,3
compression set	%	ASTM D 395 B/1	70h / 200°C	29
brittleness temperature	°C	ASTM D 746		-40
low temp. resistance	°C	ASTM D 3418 B	TG midpoint (on O-ring)	-28,3
low temp. resistance	°C	ASTM D 3418 B	TG midpoint	-33
low temp. resistance	°C	ASTM D 3418 B	glass transition (DSC)	-30
low temp. resistance	°C	ASTM D 1329	TR10	-30

Eigenschaftsänderungen nach Alterung changes of properties after ageing							
Medium medium	Prüfmethode test method	Zeit time	Tempe- ratur tempe- rature	Härte hardness	Reiß- festigkeit tensile strength	Reiß- dehnung ultimate elongation	Volumen volume
		h	°C	Punkte points	%	%	%
Luft air	ASTM D 573	168	200	+3,5	-13	-24,5	
Reference fuel FAM B	ASTM D 471	168	23	-13			+33,5
Kraftstoff C ASTM fuel C	ASTM D 471	168	23	-5,5			+6,5
ASTM fuel C + 5% methanol	ASTM D 471	168	23	-9			+11
M15 (15% methanol + 85% fuel C)	ASTM D 471	168	23	-12			+35
Methanol methanol	ASTM D 471	168	23	-20			+90
Benzol benzene	ASTM D 471	70	40	-12			+23

specifications	OIL/GAS APPL. - LOW TEMP. ANTI EXPLOSIVE DECOMPRESSION NORSOK M710 APPROVED - 5,33 mm NACE TM0297 APPROVED - 5,33 mm TOTALFINA AED APPROVED ITN 84700/A APPROVED NACE TM0187 TESTED - SOUR FLUID TEST (5% H2S) NACE TM0187 TESTED - SOUR FLUID TEST (20% H2S) API6A (Sour Fluid Test) - 10% H2S API6A (Sour gas environment) - 10 % H2S [FF/HH] Sour fluid test Arrhenius ISO 23936-2 / Norsok M710-3 Life prediction test & AED - Arrhenius ISO 23936-2 SHELL - MESC SPE 85/301 (09/2012)
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temp. range	- 41 +220°C (-46 +250°C short time)
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Die oben angegebenen Daten sind nach bestem Wissen und mit modernen Laborstandards an genormten Prüfkörpern ermittelt worden. Insbesondere beim Vergleich dieser Daten mit Werten, die an Fertigteilen ermittelt werden, kann es zu Abweichungen kommen.	The above indicated data were determined to the best knowledge according to modern laboratory standards on standardised test specimen. If these data are compared with data which were determined on finished parts it may come to variations.
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