



**TECHNICAL
DATA SHEET**

M77 REV.00

<i>Compound Code:</i> GLT98NED	<i>Revision:</i> 00
<i>Compound Description:</i> GLT-S Nero / Black 95 ±5 m IRHD Norsok M-710 (TR10-30°C)	<i>Date:</i> 13/02/2018
<i>Specification:</i> NORSOK M-710 ED3 ISO 23936-2 (rapid gas decompression resistance) FKM 95 AED BLACK TR10 -30°C (Vs Viton® GLT)	<i>Person Responsible:</i> Valerio Vezzoli

Samples Curing Conditions

	Temperature	Unit	Time	Unit	Note
Curing	170	°C	20	min	
Postcuring	230	°C	24	h	

Original Properties

Properties	Tested Value	Unit	Test Method	Limit	Note
Hardness Shore A 3 Sec.	96	PUNTI	ASTM D2240		95±5 m IRHD on finished products
Density	1,82	g/cm ³	ASTM D1817	1,81±0,05 g/cm ³	
Tensile Strength	17	N/mm ²	DIN 53504 S2		
Elongation at break	100	%	DIN 53504 S2		
Tear Strength	30	N/mm	ASTM D624B		

Low Temperature Properties

Properties	Tested Value	Unit	Test Method	Limit	Note
TR TEST TR10	-30	°C	ASTM D 1329		

Compression Set

Deformation: 25 %

Temperature °C	Time H	Tested Value	Unit	Test Method	Limit	Note
200	22	26		ASTM D395		

Value Change After Treatment

Treatment	Method	Time / Temperature		Hardness Shore A		Tensile strength %		Elongation %		Volume %		Weight %	
		hours	°C	requested	measured	requested	measured	requested	measured	requested	measured	requested	measured
AIR	ASTM D573	168	200		+2,00		+6,00		+10,00				
FUEL B	ASTM D471	70	23		-3,00		-17,00		-8,00		+3,00		
STAUFFER BLEND	ASTM D471	70	175		-8,00		-25,00		-13,00		+18,00		

Storage periods for unassembled components

Initial storage period 10 years,
Extension storage period 5 years



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O-rings in compound

GLT98NED

supplied by

BER-PA S.R.L

have been tested according to the requirements of

**NORSOK M-710 Edition 3 and ISO 23936-2
(Rapid gas decompression resistance)**

PASSED

Test gas: 90/10 mol% CH₄ / CO₂
Test temperature: 100 ±2 °C
Test pressure: 150 bar (15 MPa)
Number of cycles: 8
Decompression rate: 20.6 bar/minute
Seal Size: 312 (ISO 3601-1/AS 568)

Conor Raftery
Scientist

9th February 2018
Date

Element Hitchin has been assessed to BS EN ISO 9001 by the British Standards Institution (BSI) and is a registered firm under the BSI Quality Assurance scheme for the provision of professional and technical services.



Element Materials Technology

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Element Hitchin verify that O-rings in compound GLT98NED supplied by BER-PA S.R.L have been subjected to a multi-cycle RGD test under the conditions detailed below.

RGD TEST COMMISSIONED BY			
BER-PA S.R.L			
SEAL COMPOUND DETAILS			
Seal Manufacture	BER-PA S.R.L		
Supplied by	BER-PA S.R.L		
Compound name/number/reference	GLT98NED		
Elastomer type to ASTM D1418	FKM		
Lot/Batch No.	Not disclosed		
Seal type	O-ring		
Manufacturing method	Not disclosed		
Seal size (ISO3601-1/AS 568)	312		
CSD (nominal)	mm	5.33	
Mean CSD (actual, radial)	mm	5.41	
RGD TEST CONDITIONS			
Temperature	°C	100 ±2	
Pressure	MPa (bar)	15 +2/-0 (150 +10/-5)	
No. of cycles		8	
Dwell between cycles	hour	1	
Decompression rate (average)	MPa/min (bar/minute)	2.0 (20)	
Gas type	mol %	90/10 CH ₄ /CO ₂	
SEAL HOUSING DETAILS CONDITIONS			
Seal compression direction		Radial	
Groove ID	mm	25.44	
Groove OD	mm	15.96	
Groove width	mm	5.68	
Squeeze (average)	%	12.3	
Groove fill (area basis)	%	85	
Number of seals tested		4	
ISO TEST SEAL RATINGS			
	SEAL REPLICATE	RATING	PASS/FAIL
	1	0000	Pass
	2	0000	Pass
	3	0000	Pass
	4	0000	Pass
OVERALL RATING			PASS
GENERAL			
Test laboratory	Element Materials Technology, Hitchin, U.K.		
Test date	24 th November – 1 st December 2017		
Test gas certified and available	YES/NO	YES	
Transducer calibration available	YES/NO	YES	
P/T log available	YES/NO	YES	
TEST LABORATORY STAMP/SIGNATURE	 Element Hitchin, UK		

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