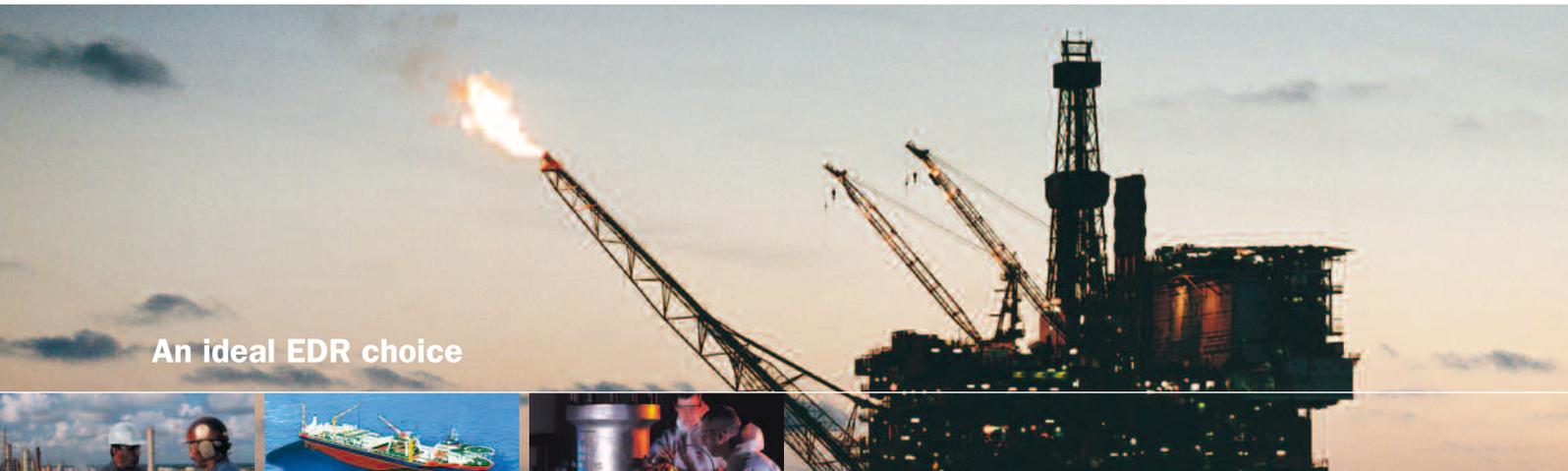


Aflas® XploR WTT80

Explosive Decompression Resistant Materials



An ideal EDR choice



Your Partner for Sealing Technology

Explosive Decompression is a major concern to the oil and gas industry. It occurs when applied system pressure is released, causing absorbed gas to expand, potentially damaging elastomer seals.

Trelleborg Sealing Solutions has focused on this issue and presents the XploR range, an entire family of advanced elastomers especially developed for oil and gas applications. The portfolio includes compounds in HNBR, FKM, Aflas® and Isolast® Perfluoroelastomer, each of which demonstrates best-in-class Explosive Decompression Resistance (EDR) for its material type.

In independent tests Aflas® XploR WTT80 was able to satisfy the requirements of Norsok M-710 Annex B, Rapid Gas Decompression, when tested with a back-up ring.

If the composition of the well or conditions of the application are known, Aflas® XploR WTT80 may prove the optimum and most cost-effective material for your application. For further information on selecting the right compound and advice on seal specification for your individual application, consult your local Trelleborg Sealing Solutions marketing company. Find contact details at www.tss.trelleborg.com.

Features & benefits:

- Unrivalled Explosive Decompression Resistance (EDR) within its material type
- Operating temperature from -10°C/14°F to 200°C/392°F
- Good steam resistance
- Exceptional mechanical performance
- Low long-term compression set
- Good chemical compatibility
- Long life in aggressive, including hydrocarbon and aqueous media, common within oil & gas applications
- High modulus, high strength
- Material compliant to Norsok M-710 Annex B

Applications:

- Gas lift equipment
- Tubing hangers
- Valves
- Wellhead equipment
- Riser equipment
- Downhole drilling equipment

XploR is available in all standard international O-Ring sizes and cross-sections along with custom-engineered solutions and specially designed seal profiles.

Explosive Decompression Facts

Inherently, elastomer seals contain voids. Gas or gas mixtures in contact with elastomer surfaces are absorbed and will saturate elastomer seals. At high-pressure this absorbed gas is in a compressed state. When external pressure is reduced, either rapidly or over a relatively short period of time, the compressed gas nucleates at the voids, expanding within the elastomer. The voids inflate leading to high tensile stresses or strains in the void walls. Depending on the strength and hardness of the elastomer, this can cause the elastomer to break or crack.

No elastomer can be completely explosive decompression resistant; however, the XploR range demonstrates unrivalled EDR inline with limits set by NORSOK M-CR-710 Rev. 2 2001 "Qualification of Non-metallic Sealing Materials and Manufacturers."

Compound No.:		WTT80		
Elastomer base:	DIN ISO 1629	FEPM		
Hardness:	DIN 53 505	92 +/- 5 IRHD		
Color:		black		
Specific gravity:		DIN EN ISO 1183-1	g/cm ³	1.58 ± 0.02
Tensile strength:		DIN 53 504	MPa N/mm ² psi	22.1 3,200
Elongation at break:		DIN 53 504	%	201
Modulus 100%:		DIN 53 504	MPa N/mm ² psi	10.9 1,580
TR point:		DIN 53 545	°C °F	+1 +34
Service temperature:			°C °F	-10 to 200 14 to 392
Specification:				Norsok M-710 Annex B

Material properties are average values resulting from tests, as specified, on standard test samples. The values are for guidance only. It is the responsibility of the user to test material for suitability within a specific application. Information is correct at time of publication.

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