

# Test Report

## Rapid Gas Decompression Test According to Total GS EP PVV 142 rev. 5 Procedure

N : CET0079566/6J1/f	Date : 6 July 2012
Attention to :	TRELLEBORG SEALING SOLUTIONS FRANCE 38 rue Jean Mermoz - BP 106 78602 MAISONS-LAFFITTE
Reference of request : Order n°1201001 date the 30/01/2012	
Specimen supplied by customer : 5 O-rings H9T20 : 113,67 x 5,33mm	

### 1. Aim and definition of test :

These tests, performed at the CETIM of Nantes in March 2012, aim at testing the elastomer seal resistance to rapid gas decompression or explosion decompression. The procedure is TOTAL General Specification GS EP PVV 142 Rev 05 concerning O-rings used in industrial valve industry.

### 2. Component tested :

#### Elastomer Material :

- Manufacturer : Trelleborg Sealing Solutions
- Reference : H9T20
- Batch number : 111111316
- Production period : 21FEB/0112

#### Production unit Location :

- Town : Tewkesbury
- Country : United Kingdom

#### O-ring nominal dimensions :

- Cross-section : 113,67 mm
- Internal diameter : 5,33 mm

### 3. Test conditions :

- Fluid : 80 % CH<sub>4</sub>, 20 % CO<sub>2</sub>
- Temperature : 75°C ± 2 °C
- Decompression rate : 190 to 0 bar in 90 s (linear decompression)
- Soaking times : 72 h and 4 times 48 h
- Nominal groove fill : 73 %
- Actual groove fill : 75.5 %
- Pressure : 190 bar ± 2 bar
- Number of decompression : 5
- Dwell time : 1 h
- Nominal axial compression : 13.7 %
- Actual axial compression : 16.3 %

### 4. Test result :

- No visible crack on the external surface of three O-rings tested simultaneously.
- The highest Norsok rating of the observed cross sections (M710 rev. 02/10/01) is 3.1.1.1.

### 5. Conclusion :

**This material fulfils the acceptance criterion of the GS EP PVV 142 Rev. 5.**

All the results and procedure detail are given in the detailed test report number CET0079566/6J1/cm.



In charge of test  
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Technical contact  
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This document is a test report and does not constitute a certificate of conformity (Articles L115-27 to L115-33 of the Code of the Consumption).



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L342.1 à L342.13 du Code de la Recherche N°Siren 775629074 Code APE 7219Z