

Test Report

Report No	288/Draft	This Report consists of 6 pages
Client	PosteRoute Limited PO Box 6232 Grantham Lincolnshire NG32 1TN	
Authority & date	Quotation acceptance dated: 28 May 2008	
Item tested	1 off Non explosive HAZMAT containment unit	
Specifications	ETSI 300 019-2-2: (1999-09):Class 2.3 Public Transportation IEC 60068-2-64: 1995 Test Fh (random vibration) IEC 60068-2-29:1993: Test Eb (bump) IEC 60068-2-32: 1975 (free fall) BS EN60529:1992 Degrees of protection provided by enclosures (IP code)	
Results	See Summary of Results on page 4	
Prepared by	B Pond	Engineer
Authorized by	S A Anandan	Project Manager
Issue Date	16 June 2008	
Conditions of issue	<p>This Test Report is issued subject to the conditions stated in current issue of <i>PS082</i> 'General conditions relating to acceptance of testing'. The results contained herein apply only to the particular sample/s tested and to the specific tests carried out, as detailed in this Test Report. The issuing of this Test Report does not indicate any measure of Approval, Certification, Supervision, Control or Surveillance by BSI of any product. No extract, abridgement or abstraction from a Test Report may be published or used to advertise a product without the written consent of the Managing Director, BSI Product Services, who reserves the absolute right to agree or reject all or any of the details of any items or publicity for which consent may be sought.</p>	



0135

TESTING, EXAMINATION AND ASSESSMENT OF POSTEROUTE LIMITED NON EXPLOSIVE HAZMAT CONTAINMENT UNIT SUBMITTED AS AN INDEPENDENT TEST SAMPLE

INTRODUCTION

At the request of PosteRoute Limited the Non explosive HAZMAT containment unit received on 27 May 2008 and detailed below, was tested and assessed against the requirements of the following Specifications:

Overall specification

ETSI 300 019-2-2 v2.1.2 (1999-09): Class 2.3 Equipment Engineering (EE); Environmental conditions and environmental tests for telecommunications equipment; Part 2-2: Specification of environmental tests; Transportation

IEC 60068-2-64:1995 Environmental testing - Part 2: Test methods - Test Fh: Vibration, broadband random (digital control) and guidance

IEC 60068-2-29:1993 Basic environmental testing procedures - Part 2.1 - Test Eb. Bump

IEC 60068-2-32:1975 Basic environmental testing procedures - Part 2.1 - Tests Test Ed
Free fall

BS EN 60529:1992 Degrees of protection provided by enclosures (IP code)

as indicated on the following pages of this Report. This request was made in the client's Quotation acceptance dated: 28 May 2008.

This Report only relates to the actual sample that has been tested and assessed. The results obtained do not necessarily relate to samples from the production line and in no way imply the performance or quality of the continuing production will be maintained.

The tests and assessments contained in this Report were undertaken by BSI Product Services Environmental Laboratory from 12 June 2007.

1. **SAMPLE SUBMITTED**

Non explosive HAZMAT containment unit

Photograph



2. SUMMARY OF RESULTS

Random vibration in accordance with ETSI 300 019-2-2: (1999-09): Class 2.3
(IEC 60068-2-64:1995: Test Fh)

No mechanical degradation **Complied**

Bump in accordance with ETSI 300 019-2-2: (1999-09): Class 2.3
(IEC 60068-2-29:1993: Test Eb)

No mechanical degradation **Complied**

Free fall in accordance with ETSI 300 019-2-2: (1999-09): Class 2.3
(IEC 60068-2-32:1975: Test Eb)

No mechanical degradation **Complied**

Dust and water ingress in accordance BS EN 60529:1992

IP6X Category 1 no ingress of dust **Complied**

IPX5 no ingress of water **Complied**

3. TESTS CONDUCTED AND RESULTS

3.1 Random vibration

Initial visual examination of the Sample showed no signs of physical degradation.

Random vibration in accordance with ETSI 300 019-2-2: (1999-09): Class 2.3 (IEC 60068-2-64:1995: Test Fh)

Frequency: 5 Hz – 20 Hz @ 1 m²/s³
20 Hz – 200 Hz @ -3 dB

Overall g rms 0.798

Duration: 30 mins/ axis

Number of axes: 3

Unit state: Unit unpackaged / empty container

Post random vibration visual examination of the sample showed no physical degradation

Complied

3.2 Bump

Initial visual examination of the Sample showed no signs of physical/mechanical degradation.

Bump in accordance with ETSI 300 019-2-2: (1999-09):Class 2.3 (IEC 60068-2-29:1993:Test Eb)

Shock level: 10g

Duration: 11ms

Pulse shape: Half sine

Bumps/direction: 100

Number of directions: 6

Unit state: Unit unpackaged / empty container

Post bump test visual examination of the sample showed no physical degradation.

Complied

3.3 Free fall

BS EN 60068-2-32:1993 Environmental testing Part 2.1 Tests Test Ed. Free fall

Drop height: 1000mm free fall onto concrete floor

Number of faces: 6

Number of drops per face: 2

Unit state: Unit unpackaged / empty container

After the completion of the above drop tests a visual inspection was performed. No apparent mechanical degradation.

Complied

3.4 Dust and water ingress to BS EN 60529:1992

Upon completion of the IP testing and after inspection no ingress of dust or water inside the test sample.

Complied

4. COMMENTS

4.1 Random vibration

The submitted sample was fixed to the aluminium expander head using clamping bars and studding for vertical axis conditioning and the same method of clamping was used when using the slip table for Fore/aft and Lateral conditioning.

4.2 Dust and water ingress to BS EN 60529:1992

Protection against access to hazardous parts and against solid foreign objects (dust tight) IP6X Category 1

The tests were performed to Category 1, i.e. enclosures where reductions in pressure below the surrounding atmospheric pressure are present.

Upon completion of the test, inspection revealed no evidence of dust ingress within the test enclosure.

Protection against the ingress of water with harmful effects (jetting) IPX5

Upon completion of the test, inspection revealed no evidence of water ingress within the test enclosure.