

SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

VIPAC ENGINEERS & SCIENTISTS LTD.

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MECHANICAL

Valid to: December 31, 2024 Certificate Number: 5677.01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to the laboratory to perform the following mechanical tests:

Test Technology/Parameter(s): <u>Test Method(s)/Standards¹:</u>

Environmental - Climatic

AS/IEC/EN 60068-2-1 Cold Test; AS/IEC/EN 60068-2-2 Dry Heat;

AS/IEC/EN 60068-2-30 Damp Heat, Cyclic;

AS/IEC/EN 60068-2-78 Damp Heat, Steady;

AS/IEC/EN 60068-2-14 Change of Temperature

(except Nc);

AS/IEC/EN 60068-2-13 Low Air

Pressure/Altitude;

AS/IEC/EN 60068-2-11 Test Ka: Salt Mist;

AS/IEC/EN 60068-2-52 Test Kb: Salt Mist,

cyclic;

IEC/EN 50155:

clause 13.4.4 Low Temperature,

clause 13.4.5 Dry Heat,

clause 13.4.7 Cyclic Damp Heat,

clause 13.4.13 Equipment Stress Screening,

clause 13.4.6 Low Temperature Storage;

BS EN50125-3:

clause 4.3 Temperature,

clause 4.4 Humidity;

MIL-STD-810 E, F:

Method 501.4 High Temperature (no solar

radiation).

Method 502.4 Low Temperature,

Method 507.4 Humidity (no solar radiation);

MIL-STD-810 G:

Method 501.5 High Temperature (no solar

radiation).

Method 502.5 Low Temperature,

Method 507.5 Humidity (no solar radiation);

Test Technology/Parameter(s):

Environmental – Climatic (cont.)

Environmental – Mechanical*

Vibration

Frequency range: 1 to 2000Hz

Max Force: 24kN

Max Displacement: 100mm pk-pk

Shock:

Max Acceleration:

1,400g at 1ms pulse duration

Max load weight: 700kg

Drop:

Max 1.5m height, 100kg

Test Method(s)/Standards¹:

MIL-STD-810 H:

Method 501.7 High Temperature (no solar

radiation),

Method 502.7 Low Temperature,

Method 507.6 Humidity (no solar radiation);

DEF STAN 00-035:

Test CL1 Constant High Temperature – Low

Humidity,

Test CL2 High Temperature – Low Humidity,

Test CL4 Constant Low Temperature Test,

Test CL5 Low Temperature Test,

Test CL6 High Temperature – High Humidity

Test

Test CN2 – Corrosive Atmosphere;

ISTA 2A Test blocks 1, 2;

ISTA 2B Test blocks 1, 2;

ISTA 3A Test blocks 1, 2;

ISTA 3B Test blocks 1, 2;

ASTM D4169, ASTM D6653 (Low Pressure)

IEC/EN/AS 60068-2-6 Vibration;

IEC/EN/AS 60068-2-27 Shock;

IEC/EN/AS 60068-2-29 Bump;

IEC/EN/AS 60068-2-32 Free Fall (procedure 1);

IEC/EN/AS 60068-2-64 Vibration;

IEC/EN/AS 60068-2-31 Drop and Topple;

MIL-STD-810E, F:

Method 514.5 Vibration,

Method 516.5 Shock (except VII and VIII);

MIL-STD-810G:

Method 514.6 Vibration,

Method 516.6 Shock (except VII and VIII);

MIL-STD-810H:

Method 514.8 Vibration,

Method 516.8 Shock (except VII and VIII);

MIL-STD-167-1A, Type I

ISTA 2A Test blocks 4, 5, 6 Vibration and Shock,

ISTA 2B Test blocks 3, 4, 5, 6, 7 Vibration and Shock

ISTA 3A Test blocks 3, 4, 5, 6, 7, 8, 9 Vibration and Shock;

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Test Technology/Parameter(s):

Environmental – Mechanical* (cont.)

Vibration

Frequency range: 1 to 2000Hz

Max Force: 24kN

Max Displacement: 100mm pk-pk

Shock:

Max Acceleration:

1,400g at 1ms pulse duration Max load weight: 700kg

Drop:

Max 1.5m height, 100kg

<u>Test Method(s)/Standards¹:</u>

DEF-STAN-0035, Part 3:

Chapter 2-01, Test M1 – General Purpose

Vibration,

Chapter 2-03, Test M3 – Classical and Sine

Waveform Shock,

Chapter 2-04, Test M4 – Drop, Topple and Roll

Test,

 $Chapter\ 2\text{-}05,\ Test\ M5-Impact,$

Chapter 2-12, Test M12 – Bump;

BS EN 50125-3:

clause 4.13.1 Vibration,

clause 4.13.2 Shock;

IEC/EN 50155: clause 13.4.11 Vibration and

Shock;

IEC 61373: Railway application – Rolling stock

Equipment – Shock and Vibration Tests;

ASTM D4169;

ASTM D5276 (Handling/Drop);

ASTM D4728 (Stacked & Vehicle Vibration);

ASTM D999 (Loose Load Vibration);

ASTM D6344 (Concentrated Impact)

Environmental – Degree of Protection – IP Rating

AS/IEC 60529 (except IPX9); IEC/EN 50155 13.4.12

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^{*}Including customer supplied and industry specifications directly related to the test technologies and parameters listed above.

¹ When the date, edition, version, etc. is not identified in the scope of accreditation, laboratories may use the version that immediately precedes the current version for a period of one year from the date of publication of the standard measurement method, per part C., Section 1 of A2LA R101 - General Requirements- Accreditation of ISO-IEC 17025 Laboratories.



Accredited Laboratory

A2LA has accredited

VIPAC ENGINEERS & SCIENTISTS LTD.

Chester Hill, NSW, Australia

for technical competence in the field of

Mechanical Testing

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 General requirements for the competence of testing and calibration laboratories. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communiqué dated April 2017).



Presented this 16th day of November 2022.

Mr. Trace McInturff, Vice President, Accreditation Services For the Accreditation Council

Certificate Number 5677.01

Valid to December 31, 2024