



The American Association for Laboratory Accreditation

World Class Accreditation

Accredited Laboratory

A2LA has accredited

CASCADE TECHNICAL SCIENCES

Hillsboro, OR

for technical competence in the field of

Mechanical Testing

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005 *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 8 January 2009*).

Presented this 14th day of July 2011.



A handwritten signature in black ink, appearing to read "Peter Meyer", written over a horizontal line.

President & CEO
For the Accreditation Council
Certificate Number 2582.01
Valid to June 30, 2013

For the tests or types of tests to which this accreditation applies, please refer to the laboratory's Mechanical Scope of Accreditation.



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

CASCADE TECHNICAL SCIENCES
Member No. PM1987
5245-A NE Elam Young Pkwy
Hillsboro, OR 97124
David Bowles Phone 503-648-1818

MECHANICAL

Valid To: June 30, 2013

Certificate Number: 2582.01

In recognition of the successful completion of the A2LA evaluation process accreditation is granted to this laboratory to perform the following tests on aircraft components, automotive components, marine components, coatings, packaging and containers, electronics, fasteners, and consumer goods:

Test Technology

Test Method

Mechanical Vibration

Includes: Sine
Random
Sine-on-Random
Gunfire

MIL-STD 810 E, F, G Sec. 514, 519;
MIL-STD 167-1 (A SHIPS);
MIL-STD 202 G Sec. 201, 204, 214;
MIL-STD 883 G, H Sec. 2005, 2007;
MIL-STD 1344 A Sec. 2005;
RTCA DO-160 D, E, F, G Sec. 8.0;
RTCA DO-227 6/23/1995 Sec. 2.3.1;
JESD22 B103B;
SAE J1455 Sec. 4.9;
BellCore GR-63-CORE 5.4.2, 5.4.3;
IEC 68, Part 2 Fe, Fd, Fda, Fde;
SAE J1211 Sec. 3.2.7;
ASTM D4169;
UN ST/SG/AC.10/11/Rev.3 para. 38.3.4.3

Mechanical Shock

MIL-STD 810 E, F, G Sec. 516;
MIL-STD 202 G Sec. 213;
MIL-STD 883 G, H Sec. 2002;
MIL-STD 1344 A Sec. 2004;
RTCA DO-160 D, E, F, G Sec. 7.0;
RTCA DO-227 6/23/1995 Sec. 2.3.2;
JESD22 B104C Conditions A, B, C and D;
SAE J1455 Sec. 4.9;
IEC 68 Part 2 Ea, Eb;
SAE J1211 Sec. 3.2.8;
UN ST/SG/AC.10/11/Rev. 3 para. 38.3.4.4

Test Technology

Acceleration

Thermal (Temperature)

Includes: High/Low Temperature
Thermal Shock
Temperature Cycling

Temperature/Humidity

Salt Spray

Salt Fog, Corrosion

Evaluation: Corrosion Creep-Back
Evaluation: Tape Adhesion

Test Method

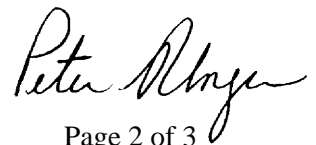
MIL-STD 810 E, F, G Sec. 513;
MIL STD 202 G Sec. 212;
MIL-STD 1344 A Sec. 2011;
RTCA DO-160 D, E, F, G Sect. 7.0

MIL-STD 810 E, F, G Sec. 501, 502;
RTCA DO-160 D, E, F, G Sec. 4.0;
BellCore GR-63-CORE 5.1;
IEC 68, Part 2 Sec. A, B;
JESD 22 Sec. A104C, A106B;
MIL-STD 883 G, H Sec. 1011;
MIL-STD 810 E, F, G Sec. 503, 520;
MIL-STD 202 G Sec. 107;
MIL STD 883 G, H Sec. 1010;
MIL-STD 1344 A Sec. 1003;
RTCA DO-160 D, E, F, G Sec. 5.0;
RTCA DO-227 6/23/1995 Sec. 2.3.3;
SAE J1455 Sec. 4.1;
SAE J1211 Sec. 3.2.1;
UN ST/SG/AC.10/11/Rev.3 para. 38.3.4.2

MIL-STD 810 E, F, G Sec. 507;
MIL-STD 202 G Sec. 103, 106;
MIL-STD 883 G, H Sec. 1004;
MIL-STD 1344 A Sec. 1002;
RTCA DO-160 D, E, F, G Sec. 6.0;
RTCA DO-227 6/23/1995 Sec. 2.3.6;
SAE J1455 Sec. 4.2;
BellCore GR-63-CORE 5.1;
IEC 68, Part 2 Sec. Db;
SAE J1211 Sec. 3.2.2;

ASTM B117, G86 Sec. 1.1.3;
MIL-STD 810 E, F, G Sec. 509;
MIL-STD 202 G Sec. 101;
MIL-STD 883 G, H Sec. 1009;
MIL-STD 1344 A Sec. 1001;
RTCA DO-160 D, E, F, G Sec. 14.0;
SAE J1455 Sec. 4.3;
IEC 68, Part 2 Sec. Kb;
SAE J2334;
GM 9540P;
SAE J1211 Sec. 3.2.3;
NEMA 250 Sec. 5.8, 5.9

ASTM D1654
ASTM D3359



Test Technology

Altitude (Barometric Pressure)
Temperature Altitude

Test Method

MIL-STD 810 E, F, G Sec. 500, 520;
MIL-STD 202 G Sec. 105;
MIL-STD 883 G, H Sec. 1001;
MIL-STD 1344 A Sec. 1011;
NASA MSFC-SPEC-548;
SAE J1455 Sec. 4.8;
SAE J1211 Sec. 3.2.6;
UN ST/SG/AC.10/11/Rev.3 para. 38.3.4.1;

Altitude
Decompression/Overpressure

RTCA DO-160 D, E, F, G Sec. 4.0;
RTCA DO-227 6/23/1995 Sec. 2.3.4, 2.3.5;
MIL-STD-810 E, F, G Sec. 500.5

Drop Shock
Corner, Edgewise, Flat

ASTM D4169
BellCore GR-63-CORE Sec. 5.3

Rain, Wind and Rain, Drip

MIL-STD-810 E, F, G Sec. 506

Dust

MIL-STD-810 E, F, G Method 510.5;
RTCA DO-160 D, E, F, G Sec. 12;
SAE J1455 Sec. 4.7.3;
IEC 60529 Sec. IP5X; IP6X

Waterproofness/ Drip

RTCA DO-160 D, E, F, G Sec. 10.0;
MIL-STD-810 E, F, G Sec. 512;
SAE J1211 Sec. 3.2.4;
NEMA 250 Sec. 5.7;
IEC 60529 Sec.: IP X1, IP X2, IP X3, IP X4, IP X5, IP X6, IP X7, IP X8

Icing/ Freezing Rain

MIL-STD-810 E, F, G Sec. 521;
RTCA DO-160 D, E, F, G Sec. 24;
NEMA 250 Sec. 5.6

UV Fluorescent Light Exposure

ASTM G154;
ISO 4892;
MIL-STD-810 E, F, G Method 505;
SAE J1885, J2020

Protection Against Solid Foreign Objects

IEC 60529 Sec.: IP 1X, IP 2X, IP 3X, IP 4X, IP 5X, IP 6X

Fluid Susceptibility

RTCA DO-160 D, E, F, G Sec. 11;
MIL-STD-810 E, F, G Sec. 504

Steam Clean/ Pressure Wash

SAE J1455 Sec. 4.5;
DIN 40 050 Part 9 Sec. IP X9K

HAST

JESD22 Sec. A110-B, A102-B, A118

HALT

Qualmark Guideline 9.0

*Accreditation includes customer specific methods derived from the test methods listed above.

