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 30th day of June 2009.

President & CEO
For the Accreditation Council
Certificate Number 2582.01
Valid to June 30, 2011
Revised on August 6, 2009

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

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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, 2011 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:		MIL-STD 810 Sec. 514, 519
Includes:	Sine	MIL-STD 167-1
	Random	MIL-STD 202 Sec. 201, 204, 214
	Sine-on-Random	MIL-STD 883 Sec. 2005, 2007
	Gunfire	MIL-STD 1344 Sec. 2005
		RTCA DO-160 Sec. 8.0
		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 38.3.4.3
Mechanical Shock		MIL-STD 810 Sec. 516
		MIL-STD 202 Sec. 213
		MIL-STD 883 Sec. 2002
		MIL-STD 1344 Sec. 2004
		RTCA DO-160 Sec. 7.0
		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 38.3.4.4
Acceleration		MIL-STD 810 Sec. 513
		MIL STD 202 Sec. 212
		MIL-STD 1344 Sec. 2011
		RTCA DO-160 Sect. 7.0

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Test Technology		Test Method
Thermal (Temperature):		MIL-STD 810 Sec. 501, 502
Includes:	High/Low Temperature	RTCA DO-160 Sec. 4.0
	Thermal Shock	BellCore GR-63-CORE 5.1
	Temperature Cycling	IEC 68, Part 2 Sec. A, B
		JESD 22 Sec. A104C
		MIL-STD 883 Sec. 1011
		MIL-STD 810 Sec. 503, 520
		MIL-STD 202 Sec. 107
		MIL STD 883 Sec. 1010
		MIL-STD 1344 Sec. 1003
		RTCA DO-160 Sec. 5.0
		SAE J1455 Sec. 4.1
		SAE J1211 Sec. 3.2.1
		UN ST/SG/AC.10/11/Rev.3 38.3.4.2
Temperature/Humidity		MIL-STD 810 Sec. 507
		MIL-STD 202 Sec. 103, 106
		MIL-STD 883 Sec. 1004
		MIL-STD 1344 Sec. 1002
		RTCA DO-160 Sec. 6.0
		SAE J1455 Sec. 4.2
		BellCore GR-63-CORE 5.1
		IEC 68, Part 2 Sec. Db
		SAE J1211 Sec. 3.2.2
Salt Spray (Salt Fog, Corrosion)		ASTM B117
		MIL-STD 810 Sec. 509
		MIL-STD 202 Sec. 101
		MIL-STD 883 Sec. 1009
		MIL-STD 1344 Sec. 1001
		RTCA DO-160 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
Evaluation: Corrosion Creep-Back		ASTM D1654
Evaluation: Tape Adhesion		ASTM D3359

Test Technology	Test Method
Altitude (Barometric Pressure) Temperature Altitude	MIL-STD 810 Sec. 500, 520 MIL-STD 202 Sec. 105 MIL-STD 883 Sec. 1001 MIL-STD 1344 Sec. 1011 SAE J1455 Sec. 4.8 SAE J1211 Sec. 3.2.6 UN ST/SG/AC.10/11/Rev.3 38.3.4.1
Altitude: Decompression/Overpressure	RTCA DO-160 Sec. 4.0 MIL-STD-810 Sec. 500.5
Drop Shock Corner, Edgewise, Flat	ASTM D4169 BellCore GR-63-CORE Sec. 5.3
Rain, Wind and Rain, Drip	MIL-STD-810G Sec. 506
Dust	SAE J1455 Sec. 4.7.3 IEC 60529 Sec. IP5X; IP6X
Waterproofness/ Drip	RTCA DO-160 Sec. 10.0 MIL-STD-810 Sec. 512 SAE J1211 Sec. 3.2.4 NEMA 250 Sec. 5.7 IEC 60529 Secs: IP X1, IP X2, IP X3, IP X4, IP X5, IP X6, IP X7, IP X8
Icing/ Freezing Rain	MIL-STD-810 Sec. 521 RTCA DO 160 Sec. 24 NEMA 250 Sec. 5.6
UV Fluorescent Light Exposure	ASTM G 154
Protection Against Solid Foreign Objects	IEC 60529 Secs: IP 1X, IP 2X, IP 3X, IP 4X, IP 5X, IP 6X
Fluid Susceptibility	RTCA DO 160 Sec. 11 MIL-STD-810 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.