SCOPE OF ACCREDITATIONTO ISO/IEC 17025:2005

LYDALL THERMAL / ACOUSTICAL GROUP
MATERIAL TESTING LABORATORIES
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MECHANICAL

Valid To: June 30, 2016 Certificate Number: 1959.01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following tests using automotive components on Fiberglass, Metals, Plastic, Rubber and Textiles:

	TEST STANDARD	DESCRIPTION
ACOUSTIC	ASTM E1050	Impedance and Absorption of Acoustical Materials Using a Tube, Two Microphones and an FFT Analyzer
	ISO 9053, Method B	Determination of Airflow Resistance
ADHESIVE	ASTM D3330, Method F	Peel Adhesion of Pressure Sensitive Tape
	ASTM D751, Sect. 45 - 48	Adhesion of Coating to Fabric
	ASTM D903	Standard Test Method for Peel or Stripping Strength of Adhesive Bonds
	FLTM BN 151-05	Determination of 180 Degree Peel Adhesion Strength of Laminates
	ISO 8510-1	Peel Test for a Flexible-Bonded-To-Rigid Test Specimen Assembly
	LP-463TB-03-01	Determination of Peel Strength and Adhesion for Tapes and Films
	LTM-M102	Loop Tack
	LTM-M103	Shear Adhesion Failure Time (SAFT)
	SAE J1679	Peel Strength of Soft Trim Adhesives
	WSS-M99P32-C, Sect. 3.9.5, 3.9.6	Determination of 180 Degree Peel Adhesion Strength of Laminates
COMPRESSION	ASTM D1777	Standard Test Method for Thickness of Textile Materials
	ASTM D461 (1993)*, Sect. 10	Standard Test Methods for Felt – Thickness of Conditioned Specimens
	ASTM D5729	Standard Method for Thickness of Nonwoven Fabrics
	ASTM D5736	Standard Test Method for Thickness of Highloft Nonwoven Fabrics

	TEST STANDARD	DESCRIPTION
COMPRESSION (cont.)	ASTM D645	Standard Test Method for Thickness of Paper and Paperboard
	FLTM BN 123-01	Firmness Test for Padding Materials
	GM258M, Sect. 3.10	Compression and Recovery
	GM9199P	Firmness of Padding
	ISO 2589	Determination of Thickness
	LP-463TB-10-01	Determination of Shrinkage for Pressure Sensitive Tapes and Films
	SAE J1352	Compression and Recovery of Insulating Paddings
	SAE J1355	Test Method for Measuring Thickness of Resilient Insulating Pads
	SAE J883	Test Method for Determining Dimensional Stability of Automotive Textile Materials
	TAPPI T1016	Average Fiber Diameter of Fiberglass Mats
ENVIRONMENTAL	ASTM D573	Standard Test Method for Rubber-Deterioration in an Air Oven
	BMW PR 303.4 Table D	Climate Change Test
	GM2215M, Sect. 3.2.5	Heat Resistance
	GM6121M, Sect. 3.4.3	Oven Aging
	GM7400M, Sect. 3.2.3.1.7	Thermal Barrier for Vehicle Batteries – Dimensional Stability
	GM9128P (Inactive)*	Mildew Growth (2011)
	GM9200P, Sect. 4.1	Accelerated Aging and Steaming
	GMN10046, Sect. 3.3.1	Temperature Resistance – Constant Load
	GMN10046, Sect. 3.3.2	Temperature Resistance – Constant Temperature
	GMW14124, Cycle H	Environmental – Dimensional Stability Test Cycle
	GMW3235	Fogging
	GMW3259	Mildew
	GMW14700, Sect. B, C	Stone Impact Resistance of Coatings
	GMW16225, Table 2	Resistance of Material to Heat Aging
	GMW16225, Table 2	Resistance to Temperature – Humidity Cycling
	GMW16653, Sect. 3.3.11	Temperature Resistance – Constant Load, Constant Temperature
	LP-463CB-10-01	Heat, Humidity and Cold Aging Test for Adhesives
	LP-463LB-13-01	Heat Aging of Trim Materials
	LP-463TB-09-01	Cold Impact Testing – Bonded Moldings, Die-Cast Ornaments, and Appliques
	LP-463TB-14-01	Softening Point of Adhesive Tapes and Films
	MS-HZ100, Table 3	Resistance to Heat Degradation
	MS-HZ100, Table 4	Resistance to Heat Degradation
	MS-HZ100, Table 6	Resistance to Heat Degradation
	NES M0076 (2005 N), Sect. 25	Shrinkage Heat Cycle Exposure
	NES M0076 (2005 N), Sect. 26	Shrinkage by Low Temperature Exposure
	NES M0132	Thermal Cycle Test Methods for Plastic Parts
	SAE J400, Sect. B, C	Test for Chip Resistance of Surface Coatings

	TEST STANDARD	DESCRIPTION
ENVIRONMENTAL (cont.)	SAE J1361	Hot Plate Method for Evaluating Heat Resistance and Thermal Insulation Properties of Materials
	SAE J1389	Corrosion Test for Insulating Materials
	SAE J1756	Test Procedure to Determine the Fogging Characteristics of Interior Automotive Materials
	WSS-M99P32-C, Sect. 3.7	Resistance to Mildew
	WSS-M99P32-C, Sect. 3.8.1.1	Environmental – Interior / Luggage Compartment Parts
	WSS-M99P32-C, Sect. 3.8.1.2	Environmental – Engine / Underbody Parts
	WSS-M99P32-C, Sect. 3.8.2.1, 3.8.2.2, 3.8.2.3	Long Term Heat Exposure
	WSS-M99P32-C, Sect. 3.11	Moisture Absorption
	WSS-M99P32-C, Sect. 3.8.1.3	Environmental – High Temperature Applications
FLAMMABILITY	ASTM D3801	Standard Test Method for Measuring the Comparative Burning Characteristics of Solid Plastics in a Vertical Position
	FLTM BN 024-02	Flammability Test for Automotive Interior Materials
	FMVSS 302	Flammability of Interior Materials
	GM9070P (Inactive)*	Procedure for Testing Flammability of Materials (2011)
	GMW 3232	Flammability
	IEC 60695-2-10	Glowing/hot-wire based test methods - Glow-wire apparatus and common test procedure
	NES M0094	Flammability of Interior Materials for Automobiles
	SAE J369	Flammability of Polymeric Interior Materials-Horizontal Test Method
FLEXURAL RIGIDITY	ASTM D790	Standard Test Method for Flexural Properties of Reinforced and Unreinforced Plastics and Electrical Insulation Materials
	GM2215M, Sect. 3.2.7	Flexibility Test
	ISO 178-2	Determination of Flexural Properties
	WSS-M99P32-C, Sect. 3.12	Low Temperature Flexibility
GLOSS	ASTM D523	Gloss
IGNITION LOSS	ASTM D4963	Standard Test Method for Ignition Loss of Glass Strands and Fabrics
	ASTM D586A-97 (2002)*, Method A	Standard Test Method for Ash in Pulp, Paper, and Paper Products
	TAPPI T-1013	Loss on Ignition of Fiber Glass Mats

	TEST STANDARD	DESCRIPTION
ODOR	FLTM BO 131-03	Interior Odor Test
	GMW 3205	Odor
	LP-463KC-9-01	Odor
	SAE J1351	Hot Odor Test for Insulating Materials
REAGENT	ASTM D896	Standard Test Method for Resistance of Adhesive Bonds to Chemical Reagents
	FLTM BO 101-05	Determination of Fuel Resistance of Plastic Parts
	GM2215M, Sect. 3.2.13	Resistance to Automotive Fluids
	GM6121M, Sect. 3.4.5	Fluid Immersion
	GMW14194, Sect. 3.7.2	Chemical Resistance
	GMW14334, Code B	Chemical Resistance to Fluids
	GMW14650, Sect. 4.8	Fuel Resistance
	GMW15725, Sect. 4.7	Resistance to Fluids
	ISO 9073-17	Determination of Water Penetration (Spray Impact)
	MS-HZ100, Table 4	Fluid Immersion
	MS-HZ100, Table 4	Fluid Resistance
	MS-HZ100, Table 4	Miscellaneous Engine Fluid Resistance
	NES M0133	Chemical Resistance Test Method for Plastic Parts
	SAE J913	Test Method for Wicking of Automotive Fabrics and Fibrous Materials
	WSS-M99P32-C, Sect. 3.10	Resistance of Insulators to Various Test Reagents
STRENGTH	ASTM B557	Tension Testing of Wrought and Cast Aluminum and Magnesium Alloy Products
	ASTM D461 (1993)*, Sect. 12	Standard Test Methods for Felt – Breaking Load and Specific Strength
	ASTM D461 (1993)*, Sect. 14	Standard Test Methods for Felt – Splitting Resistance
	ASTM D5034	Breaking Strength and Elongation of Textile Fabrics – Grab Test
	ASTM D5587	Standard Test Method of Fabrics by Trapezoid Procedure
	ASTM D5733 (1999)*	Tearing Strength of Nonwoven Fabrics – Trapezoid Procedure
	ASTM D751 (Proc. A), Grab Method	Standard Test Methods for Coated Fabrics – Grab Method
	ASTM D828	Standard Test Method for Tensile Properties of Paper and Paperboard Using Constant-Rate-of-Elongation Apparatus
	ASTM E8	Tension Testing of Metallic Materials
	DIN EN 29073-3	Determination of Tensile Strength and Elongation for Nonwovens
	GM9193P	Determining Bond Strength of Fiberglass
	GME 60349	Internal Bond
	GMW3010	Determination of Tensile and Elongation Properties
	GMW3326	Tearing Strength of Textile Materials by Trapezoid Method

	TEST STANDARD	DESCRIPTION
STRENGTH (cont.)	ISO 178	Plastics — Determination of Flexural Properties
	ISO 6892-1, Sect. 11, 20	Determination of Upper Yield Strength and Determination of Elongation After Fracture
	ISO 9073-18	Breaking Force and Elongation of Non-Woven Materials using Grab Tensile Test
	ISO 9073-4	Tear Resistance
	LP-463KB-02-01	Breaking Strength and Elongation Testing of Soft Trim Materials Grab Method
	LP-463KB-03-01	Tear Strength of Soft Trim Materials
	LP-463LB-10-01	Bond Strength of Trim Materials
	LP-463TB-04-01	Determination of Tensile Strength for Tapes and Films
	LTM-M100	Internal Shear Strength
	NESM0076 (2005 N), Sect. 12	Tensile
	NESM0076 (2005 N), Sect. 13	Tear
	WSS-M99P32-C, Sect. 3.9.1	Tensile Strength
	WSS-M99P32-C, Sect. 3.9.4	Tear Strength
THERMAL	ASTM C518	Steady-State Heat Flux Measurements and Thermal Transmission Properties by Means of the Heat Flow Meter
	GM2782M, Sect. 3.4, 3.5	Thermal Barrier for Vehicle Batteries – Thermal Effectiveness Screening
	GM9202P	Procedure for Determining Heat Buildup of Insulating Materials
	LTM-T100	Flat Shield Simulator
WEIGHT	ASTM D202, Apparent Density	Standard Test Methods for Sampling and Testing Untreated Paper Used for Electrical Insulation
	ASTM D3776	Standard Test Method for Mass Per Unit Area (Weight) of Fabric
	ASTM D461 (1993)*, Sect. 11	Standard Test Methods for Felt – Weight per Unit Area
	ASTM D646	Standard Test Method for Grammage of Paper and Paperboard (Mass per Unit Area)
	ASTM D751, Sect. 10	Mass per Unit area
	ASTM E252	Standard Test Method for Thickness of Foil, Thin Sheet, and Film by Mass Measurement
	DIN EN 29073-1	Determination of Mass per Unit Area of Nonwovens
	FLTM BN 106-01	Determination of Weight per Unit Area and Density of Trim Materials
	GM258M, Sect. 3.1	Composite Thermal Insulation – Composition
	GM258M, Sect. 3.12	Weight Loss

	TEST STANDARD	DESCRIPTION
WEIGHT (cont.)	GM2782M, Sect. 3.7	Total Weight
	GM9635P	Dust-Out from Fiber Sound Absorber Pad
	GMW3182	Weight

** This laboratory's scope contains withdrawn or superseded methods. As a clarifier, this indicates that the applicable method itself has been withdrawn or is now considered "historical" and not that the laboratory's accreditation for the method has been withdrawn.*

American Association for Laboratory Accreditation

Accredited Laboratory

A2LA has accredited

LYDALL THERMAL/ACOUSTICAL GROUP, MATERIALS TESTING LABORATORIES

Hamptonville, NC

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 25th day of July 2014.

President & CEO
For the Accreditation Council
Certificate Number 1959.01
Valid to June 30, 2016

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