SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

PANGEA MADE, INC.
Corporate Design Center Laboratory Testing
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MECHANICAL

Valid To: July 31, 2023 Certificate Number: 6290.01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following test on natural leather for automotive interiors:

Test:	Test Methods:
Thickness of Leather specimens	ASTM D1813; ISO 2589; MS 300-31 sec 4.3[1]; NES M0602 sec 6[1];
Mass Per Unit Area (Weight)	ASTM D3776; GMW3182; MS 300-31 sec 4.1[1]; NES M0602 sec 7[1]; TSL 5101G sec 3.1[1]
Tear Strength	ASTM D2261; ISO 3377-1, ISO 13937-2; TSL 5101G sec 3.5.2 Method B[1]; MS 300-31 sec 4.9[1]; NES M0602 sec 12[1]; 8102Z-SZN-A320 sec 6-1-3 [1]
Stitch Tear Resistance	ISO 23910
Tensile Strength and Elongation	ASTM D5034, ASTM D2208; GMW3010; ISO 3376; TSL 5101G sec 3.4.1 Method A[1]; MS 300-31 sec 4.6[1]; NES M0602 sec 11[1]; 8102Z-SZN-A320 sec 6-2-16[1]
Determination of Flex Resistance (Bally Flex)	ASTM D6182; ISO 5402/ISO 5402-1

Test:	Test Methods:
Taber Abrasion	ASTM D3884; DIN 53109; GMW3208; MS 300-31 sec 4.19[1]; NES M0602 sec 19.2[1]; 8102Z-SZN-A320 sec 6-2-16[1]
Resistance to Temperature Aging	GM 2756M sec 3.3.16[1]; TL 52064 sec 5.12[1]; LP 463LB-13-01
Flammability of Materials	GMW3232; TL 1010; SAE J369; GB 8410; FMVSS 302; DIN 75200; MS 300-08, MS-JP-9-4; NES M0094; HES D6003; TSM 0500G; ISO 3795
Testing Leather Adhesive Strength of the Finish	TSL 5101G sec 3.30[1]; 8102Z-TLA-G100 sec B-12[1]; ISO 11644
Gakushin type friction test (Dry and wet)	8102Z-TLA-G100 sec B 6-2-3[1]
Perspiration Resistance	ISO 105-E04, ISO105-A03
Gloss	ASTM D523
Color	ASTM E1331; AATCC EP 1, AATCC EP 2
Surface Friction Coefficient	MS 300-31 sec 4.29[1]; TSL 5101G sec 3.28[1]; NES M0602 sec 34[1]
Softness - 45º Cantilever Method	GMW3390; ASTM D1388 A; TSL 5101G sec 3.3.1[1]; 8102Z-TLA-G100 sec A-8[1]; NES M0602 sec 8[1]
De Mattia Low Temperature Flexing Cracking (Mandrel Bend)	8102Z-SZN-A320 sec 6-2-11[1], 8102Z-TLA-G100 sec B-11-1[1]

Test:	Test Methods:
Fogging Characteristics of Interior Automotive Materials	SAE J1756; GMW3235; LP-463DB-12-01; TSM 0503G; PV 3010; DIN 75201; DIN EN ISO 17071; MS 300-54; NES M0161; HES D6508;
Crocking	AATCC 8; ISO 105-X12
Wear Resistance /Surface Abrasion Test (Wyzenbeek)	LP-463-KB-06-01; TSL 5101G sec 3.9.2 Method B[1]
Xenon Weatherometer	ISO 105-B06; SAE J2412; PV1303
Rubbing Veslic	ISO 11640
Temperature and Humidity Aging (Thermal cycles)	TL 52064 sec 6.9[1] / PV 1200; 8102Z-TLA-G100 sec B-8[1] 8102Z-SZN-A320 sec 6-2-8[1]; TSL 5101G sec 3.24[1]; LP-463LB-11-02, LP-462LB-12-01; 31804676 sec 4.10[1]/VCS 1026,82019; NES M0602 sec 28[1]; WSS-M99P43-E1/E2 sec 3.12.3[1]; GMW14124 / GMW3262 sec 3.2.6.4[1]; AA-0565 / AA-0568

[1] This material specification is not an accredited test and the inclusion of this material specification on this Scope does not confer laboratory accreditation to the material specification nor does it confer accreditation for the method(s) embedded within the specification. The accredited test methods listed on this scope are used in determining compliance with this material specification.

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Accredited Laboratory

A2LA has accredited

PANGEA MADE, INC.
CORPORATE DESIGN CENTER LABORATORY TESTING

Rochester Hills, MI

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 5th day of August 2021.

Mr. Trace McInturff, Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 6290.01
Valid to July 31, 2023

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