



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

FXI
2211 South Wayne St.
Auburn, IN 46706
John Constantino Phone: 610 744 2300

MECHANICAL

Valid To: July 31, 2014

Certificate Number: 1116.01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following tests on polymers, textiles and vinyls:

<u>Test Description</u>	<u>Test Method(s)</u>
Air Flow	Delphi SD2-209 (Sec 5.2-5.4); GM 251M (Sec 4.1)
Antimicrobial Milk Test	CLP-463KB-34-01
Ash Content	ASTM D1278 (Sec 14-17), ASTM D586-97 (Withdrawn 2009) ¹
Ball Rebound	ASTM D3574 (Method H); Nissan M0086 (Sec 10.0); TSL 3505G (Sec 6.5); TSM7100G (Sec 4.7)
Bond / Peel Strength	ASTM D413 (Sec 8-10), ASTM D751 (Sec 11-16); FLTM BN 151-05; GMW 3220; HES D6506 (Sec 5.24), HES D6511 (Sec 4.7); LP-463LB10-01; MS300-31 (Sec 4.10), MS300-32 (Sec 4.23); NIS 87000NDS00 (Sec 13-1-1-2); TSL 2100G (Sec 4.39), TSL 5100G (Sec 4.5)
Bow & Skew	ASTM D3882
Cleanability	GM 9126P
Cleaning Resistance	GM 9900P; GMW 3402
Cold Cracking	GM 9140P; LP-463KB28-01 (Method B)
Color Crocking	AATCC 8; FLTM BN 107-02; ISO 105-X12
Colorfastness to Light (Spectrophotometer)	SAE J1767
Compatibility	GM 9141P
Compression Force Deflection (CFD)	ASTM D3574 (Method C); ES-X 83218; ISO 3386-1, -2; JIS K 6401; M0086; TSM 6716G, TSM 7100G
Compression Set (Constant Deflection)	ASTM D3574 (Method D), ASTM D3575 (Suffix B); FLTM BN 015-07; ISO 1856
Corrosion Test	SAE J1389
Crease Resistance	GM 9201P; WSS-M8P18A1-A4 (Sec 3.13.2)
Cycle Aging	FLTM BN 151-05, FLTM BO 115-01; GM 9200P, GM 9505P (Cycle M); GMW 14124 (Cycles Q, T & S)
Density	ASTM D3574 (Method A); ISO 845; JIS K 6401; M0086; MS 257-10 (Sec 3.3); TSL 3505G; TSM 7100G
Dimensional Stability	GM 9452P; GMW 4217; SAE 315 (Sec 15)

Test Description

Test Method(s)

Dynamic Fatigue – Constant Force Pounding

ASTM D3574 Test I₃; ISO 3385

Dry Heat Oven Aging

ASTM D3574 (Method K); FLTM BN 151-058; SD2-209 (Sec 5.2.2)

Elongation

ASTM D3574; GMW 3010; LP-463KB2-01; TSM 7100G

Fastening Strength

GM 9207P (Sec 3.1)

Fiber Degradation

FLTM BN 117-03 (Method B); GM 9771P

Firmness

GM 9199P

Flammability

California Tech Bul. 117 (Test A1 + D2); DBL 5307; FLTM BN 024-02; FMVSS 302; GM 9070P; GMW 3232; HES D6003; ISC-C93-001 (Method 12); ISO 3795; MES CF 050C; MS 300-08; NES M0094; SAE J369; TL 1010; TSM0500G

Flex Fold

LP-463LB-09-01

Flex Fatigue (Roller Shear)

ASTM D3574 (Method I₂)

Flexibility

GMW 3390

Fogging

GMW 3235; SAE J1756

Hydrolytic Stability

GM 9231P; GMW 14124

Indentation Force Deflection (IFD)

ASTM D3574; SD2-209 (Sec 5.2.6)

Indentation Residual Gage Load (IRGL)

ASTM D3574

Laminate Curl

GM 9330P; GMW 4089

Loaded Height

SAE J815

Low Temperature Flexibility

FLTM BN 102-01 (Method A); SD2-209 (Sec 5.2.3)

Migratory Staining

ASTM D925 (Method A)

Mildew

GM 9128P; GMW 3259

Odor

FLTM BO 131-01; LP-463KC-9-01, LP-463KB-34-01; GMW 3205; SAE J1351; SD2-209 (Sec 5.2.1); TSM0505G (smell only)

pH

AATCC 81

Pile Distortion

GMW 3274, GMW 4141

Porosity (Dow, Frazier)

ASTM D3574 (Method G), ASTM D737; ISO 9237

Pore Size

SD2-209

Resistance to Heat Aging

ASTM D3574 (Method K); LP-463LB13-01

Resistance to Humidity

FLTM BN 151-05; GM 9131P; LP-463LB12-01

Retained Tensile Strength

FLTM BN 117-03 (Method A)

Seam Fatigue Resistance

FLTM BN 106-02; GMW 3405

Seam Strength

FLTM BN 119-01

Shrinkage

FLTM BN 105-01; SAE J883

Solvent Resistance

ESB-M17H93

Specular Gloss

ASTM D523

Stain Protector Performance (Oil, Water)

AATCC 118; GM 9317P; GMW 4726; LP-463KB-37-03

Stain Release

LP-463KB-37-02

Static Force Loss

ASTM D3574 (Method I₁)

Static Friction

ASTM D1894

<u>Test Description</u>	<u>Test Method(s)</u>
Steam Autoclave Aging	ASTM D3574 (Method J)
Steaming	GM 9200P; LP-463KC-15-01
Stretch and Set	GMW 3211; SAE J855
Taber Abrasion	ASTM D3884; GMW 3208; LP-463KB-21-01; SAE J948
Tear Strength (Tongue, Trapezoid, Trouser)	ASTM D3574 (Method F), ASTM D2261, ASTM D5587; GMW 3326; ISO 13937-2; TSM 7100G
Tensile Strength	ASTM D3574 (Method E), ASTM D5034; GMW 3010; TSM 7100G
Thickness	ASTM D1777; ISO 5084
Visual Evaluation of Automotive Trim	SAE J361
Water Absorption	SD2-209 (Sec 5.2.8)
Water Seal	Delphi SD2-209 (Sec 5.2.9); GMW 15473 (Sec 3.18); TSK 6712G (Sec 6.2.3); WSK M2D 460A (Sec 3.5.9); WSB M46 337A (Sec 3.11)
Water Spotting	GM 9133P; GMW 14102
Weight	ASTM D3776; GMW 3182
Wicking	GM 9146P (Sec 4.1); SAE J913
Width	ASTM D3774
Xenon Arc Weatherometer	FLTM BN 117-03; SAE J2412
Yarn Count	ASTM D3775; GMW 4090

¹ This laboratory's scope contains a withdrawn method. 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.

Note: The laboratory is only accredited for the test methods listed above. The accredited test methods are used in determining compliance with the documents material specifications listed below. The inclusion of these documents on this Scope does not confer laboratory accreditation to them nor does it confer accreditation for the method(s) embedded within them.

<u>Description</u>	<u>Standard(s)</u>
Bond / Peel Strength	GM 3602M
Cleanability	GM 6291M (Sec 3.1.2)
Colorfastness to Elevated Temperature	GM 2737M (Sec 6.2)
Curling	GM 2737M (Sec 5.9)
Low Temperature Load Compression	ESB-M2D 243-A (Sec 3.3.9)
Resistance to Blocking	GM 2737M (Sec 5.14)
Weight	GM 2737M (Sec 5.1)



World Class Accreditation

The American Association for Laboratory Accreditation

Accredited Laboratory

A2LA has accredited

FXI

Auburn, IN

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 7th day of June 2012.



A handwritten signature in black ink, reading "Peter Abney", written over a horizontal line.

President & CEO
For the Accreditation Council
Certificate Number 1116.01
Valid to July 31, 2014

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