



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

CASCADE ENGINEERING - ANALYTICAL LAB

4855 37th Street S.E.
Grand Rapids, MI 49512
Ryan Helmer Phone: 616 254 4233

MECHANICAL

Valid To: February 28, 2019

Certificate Number: 2263.02

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory at the location listed above *as well as the satellite laboratory location listed below* to perform the following rubber and plastics tests:

<u>Test Description</u>	<u>Test Method or Standard</u>
Ash Content	ASTM D5630 (Procedure B)
Compression Set	ISO 815-1
Conditioning	ASTM D618; GMW 3221 (Code A); ISO 291
Density / Specific Gravity	ASTM D792; ISO 1183-1 (Method A)
Dimensional Stability	GMW 4217
Durometer Hardness (Shore A and D)	ASTM D2240; ISO 868
Environmental Test	IEC 60068-2 (-1, -2 (up to 250C), -14 (except section 9)), 68-2-33; CLP-463LB-13-01
Flammability	FMVSS 302; ISO 3795
Flexural Strength and Modulus	ASTM D790; ISO 178
Fogging	Chrysler CLP-463DB-12-01; GM 9305P (Inactive) ¹ ; SAE J1756 (except section 9)
Fracture – Gardner Impact	ASTM D5420
Fracture – Izod Impact	ASTM D256
Heat Deflection Temperature	ASTM D648 (Method B); ISO 75-1, -2
Low Temperature Flexibility	GM 9503P (Inactive) ¹ , 14108, 16746; WSS-M99-P32-C (Section 3.12)

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<u>Test Description</u>	<u>Test Method or Standard</u>
Melt Flow Index	ASTM D1238; ISO 1133
Odor	Ford FLTM BO 131-01; GMW 3205; SAE J1351
Scratch and Mar	Chrysler CLP-463DD-18-01 (Method A); Ford FLTM BN 108-13, Visual Evaluation; GMN 3943 (Method A)
Shrinkage (Mold / Post)	ASTM D955; ISO 294-4
Spectroscopy – FTIR	ASTM E1421
Specular Gloss	ASTM D523, D2457
Tear Strength	ASTM D624, D1004; ISO 34-1 (Method B)
Tensile Strength	ASTM D412, D638; ISO 37, 527-1, 2
Thermal / Humidity Cycle	WSS-M99 P32-B (Sections 3.4 & 3.8), WSS-M99 P32-C (Section 3.8), WSS-M99 P32-D1(Sections 3.8.2 &3.8.3); LP-463LB-12-01 (Method A)

This accreditation covers testing performed at the main laboratory listed above, and the following satellite laboratory listed below:

CASCADE ENGINEERING - WEST PLANT ACOUSTIC LAB
 5055 36th St. S.E
 Grand Rapids, MI 49512
 Aaron Casey Phone: 616 254 4113

<u>Test Description</u>	<u>Test Method or Standard</u>
Thermal / Humidity Cycle	WSS-M99 P32-B (Section 3.4 & 3.8), WSS-M99-P32-C (Section 3.8), WSS-M99 P32-D1(Sections 3.8.2 &3.8.3)

¹ NOTE: This laboratory’s scope contains withdrawn or superseded methods.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.





Accredited Laboratory

A2LA has accredited

CASCADE ENGINEERING - ANALYTICAL LAB

Grand Rapids, MI

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 22nd day of February 2017.

A handwritten signature in black ink, written over a horizontal line.

President and CEO
For the Accreditation Council
Certificate Number 2263.02
Valid to February 28, 2019

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