



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

CASCADE ENGINEERING - ANALYTICAL LAB

4855 37th Street S.E.

Grand Rapids, MI 49512

Ryan Helmer Phone: 616 254 4233

MECHANICAL

Valid To: November 30, 2020

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)
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
Heat Age	LP-463LB-13-01
Flammability	FMVSS 302; ISO 3795
Flexural Strength and Modulus	ASTM D790; ISO 178
Fogging	Chrysler LP-463DB-12-01; GM 9305P (Inactive) <sup>1</sup> ; 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) <sup>1</sup> , GMW 14108, 16746; WSS-M99-P32-C (Section 3.12)

<u>Test Description</u>	<u>Test Method or Standard</u>
Melt Flow Index	ASTM D1238 Procedure A; ISO 1133
Odor	Ford FLTM BO 131-01; GMW 3205; LP-463KC-09-01; SAE J1351
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 (Method A), 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  
 Ryan Helmer Phone: 616 254 4233

<u>Test Description</u>	<u>Test Method or Standard</u>
Thermal / Humidity Cycle	LP-463LB-13-01

<sup>1</sup>NOTE: This laboratory’s scope contains withdrawn or superseded methods. As a clarifier, this indicates that the applicable method itself has been withdrawn or is now considered “historical” and not that the laboratory’s accreditation for the method has been withdrawn.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 17025:2017 *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 29<sup>th</sup> day of April 2019.

A blue ink signature of the Vice President of Accreditation Services.

Vice President, Accreditation Services  
For the Accreditation Council  
Certificate Number 2263.02  
Valid to November 30, 2020

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