



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

CASCADE ENGINEERING - ANALYTICAL LAB
4855 37th Street S.E.
Grand Rapids, MI 49512
Logan Kucharski Email: logan.kucharski@cascadeng.com

MECHANICAL

Valid To: January 31, 2025

Certificate Number: 2263.02

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following rubber and plastics tests:

<u>Test(s)</u>	<u>Test Method(s)¹</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	CFR 571.302; ISO 3795
Flexural Strength and Modulus	ASTM D790; ISO 178
Fogging	Chrysler LP-463DB-12-01; GMW3235, Method A; SAE J1756 (<i>except section 9</i>)
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) ² , GMW 14108, 16746; Ford BN 102-01, Procedure A, WSS-M99_P32-B (Section 3.8)

<u>Test(s)</u>	<u>Test Method(s)¹</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 (<i>except 85⁰</i>)
Tear Strength	ASTM D624, Type C, T, ASTM D1004
Tensile Strength	ASTM D412 (Method A), ASTM D638 (<i>except A.3</i>); ISO 37, 527-1, 2
Thermal / Humidity Cycle	WSS-M99 P32-B (Section 3.4); WSS-M99 P32-C (Section 3.8); WSS-M99 P32-D1(Sections 3.8.2 &3.8.3); LP-463LB-12-01 (Method A)

¹ When the date, edition, version, etc. is not identified in the scope of accreditation, laboratories may use the version that immediately precedes the current version for a period of one year from the date of publication of the standard measurement method, per part C., Section 1 of A2LA R101 - *General Requirements- Accreditation of ISO-IEC 17025 Laboratories*.

² NOTE: This laboratory’s scope contains withdrawn or superseded methods. As a clarifier, this indicates that the applicable method itself has been withdrawn or is now considered “historical” and not that the laboratory’s accreditation for the method has been withdrawn.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 29th day of March 2021.

A blue ink signature of Trace McInturff, written in a cursive style.

Mr. Trace McInturff, Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 2263.02
Valid to January 31, 2025
Revised November 19, 2024

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