



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

CASCADE ENGINEERING - ANALYTICAL LAB
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Grand Rapids, MI 49512
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MECHANICAL

Valid To: November 30, 2024

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² NOTE: This laboratory's scope contains withdrawn or superseded methods. As a clarifier, this indicates that the applicable method itself has been withdrawn or is now considered "historical" and not that the laboratory's accreditation for the method has been withdrawn.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 14th day of March 2023.

A blue ink signature of Mr. Trace McInturff.

Mr. Trace McInturff, Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 2263.02
Valid to November 30, 2024

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