SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

ELEMENT MATERIALS TECHNOLOGY DETROIT - WARREN 11 MILE
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Warren, MI 48092
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CHEMICAL

Valid To: December 31, 2024 Certificate Number: 0098.14

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory at the location above as well as the satellite laboratory location listed below to perform the following types of chemical tests and analysis on petroleum and petroleum products, plastics, rubbers, textiles, labels, gasket materials, metals, oxides, ceramics, paints, and paint products:

Test Method	Test
Ash	
ISO 3451-1 (Method A)	Ash Content, General Method
ISO 3451-2 (Method A)	Ash Content, Polyalkylene Tera
ISO 3451-3 (Method A)	Ash Content, Cellulose Acetate
ISO 3451-4 (Method A)	Ash Content, Polymides
ISO 3451-5 (Method A)	Ash Content, PVC
ASTM D2584	Ignition Loss of Cured Reinforced Resins
ASTM D5630 (Method B)	Ash Content of Thermoplastics
Flammability	
Chrysler MS JP 9-4	Flammability
FLTM BN 024-02	Automotive Materials, Flammability
FMVSS 571.302	Flammability of Interior Materials
GB 8410	Flammability of Automotive Interior Materials
GMW3232	Flammability
HES C206 / HES D6003	Flammability
ISO 3795	Flammability
MES CF 050	Flammability
NES M0094	Flammability
SAE J369	Automotive Materials, Flammability
Toyota TSM0500G	Flammability
VW TL1010 / DIN 75200	Materials for Vehicle Interiors, Burning Behavior
Volvo VCS 5031,19	Flammability of Interior Materials

Test Method	Test
Thermal Analysis	
Linear Thermal Expansion	
ASTM D696	Coefficient of Linear Thermal Expansion of Plastics Between (-30 and 30) °C
Thermomechanical Analysis, TMA	
ASTM E831	Linear Thermal Expansion of Solid Materials by TMA
ASTM E1545	Glass Transition Temperature by Thermomechanical Analysis
ISO 11359-1	Thermomechanical Analysis, TMA, General Principles
ISO 11359-2	Glass Transition Temp. and Coefficient of Thermal Expansion by TMA
Water Absorption	
ASTM D570	Water Absorption of Plastic
ISO 62	Plastics-Determination of Water Absorption

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Test(s):	Test Method(s):
Composition Analysis by Thermogravimetry (TGA)	ASTM E1131; ISO 11358
Melting & Crystallization Temperature by Thermal Analysis (DSC)	ASTM E794, ASTM D3418, ASTM E1356, ASTM D3895, ASTM E1269; GM 9094P (Inactive 2011)[2]; ISO 11357-1, -2, -3
Formaldehyde by UV	PV3925; VDA 275; FLTM BZ 106-01A Bottle Test
pH of Aqueous Solutions with Glass Electrode	ASTM E70; Chrysler LP-463KC-01-01A
Thermal Oxidative Stability of Propylene (Biaxial Rotator)	ASTM D3012; GM9059P (Inactive)[2]; GMW14651 (Inactive)[2]; ISO 4577
Transition Temperatures of Polymers by Thermal Analysis	ASTM D3418

Preparation	Method(s)	Associated Specifications
Bag	TSM 0508G; ISO 12219-2, ISO 12219-9	GMW17914 A TSM 0508G NES M0402 MS300-55 01.12-L-10661 BZ 108-01 DWG 0094Z SNA 0000 TSM0512G MES CF 080 DWG 0094Z-T7S-0000 CS-A0229 RTS-1745 TP-001008 E1805159

Preparation	Method(s)	Associated Specifications
Micro-Scale Chamber	ISO-12219-3; ASTM D7706, ASTM D5116	CS13398 TP001008 RNES-B-20116 V. 2.0 TP-0000912
Chamber (M^3)	ISO 12219-4; ASTM D5116	GMW17914 B MS300-57 PV3492 GS97014-3 TS420-00-033 VCS 1027, 2769
Chamber (50 L)	CAN/ULC-S774-09; ASTM D5116	CAN/ULC-S774-09
Bottle	GMW15635	GMW15635 BZ 156-01 VDA 275 (UV) VCS 1027, 2739 (UV) BMW AA-0061 (UV)
Thermal Absorption	GMW15634	GMS15634 VDA278
Headspace	FLTM BZ 157.01	FLTM BZ 157.01 PV3341 GMW8081 EN 13130-4 VCS 1027, 2749 and 2759
GC/MS VOC	ISO 16000-6; ASTM D6196	GMW15654 PV3341 GMW8081 MES CF 080 DWG 0094Z SNA 0000 NES M0402 MS300-55 01.12-L-10661 GMW15634 VDA278 BZ 108-01 TSM 0508G VCS 1027, 2749 and 2759 CS13398 TSM0512G EN 13130-4 (1,3 – Butadiene) GMW17914 FLTM BZ 157.01 DWG 0094Z-T7S-0000 RNES-B-20116 V. 2.0 TS420-00-033 CS-A0229 VCS 1027, 2769 RTS-1745 TP-001008 E1805159 TP-0000912

Preparation	Method(s)	Associated Specifications
FID	GS97014-3	GS97014-3
HPLC	ISO 16000-3; ASTM D5197	GMW15600 GMW15635 BZ 156-01 MS300-55 1.12-L-10661 BZ 108-01 TSM 0508G MES CF 080 DWG 0094Z SNA 0000 GMW17914 NES M0402 TSM0512G CS13398 DWG 0094Z-T7S-0000 RNES-B-20116 V. 2.0 TS420-00-033 CS-A0229 RTS-1745 VCS 1027, 2769 TP-001008 E1805159 TP-0000912
GC/MS SVOC	GMW15634	GMW15634 VDA278

[1]This accreditation covers the specified testing performed at the laboratory locations listed in this scope of accreditation.

[2]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

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Warren, MI

for technical competence in the field of

Chemical 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 22nd day of March 2023.

Mr. Trace McInturff, Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 0098.14
Valid to December 31, 2024

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