



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

PRIDGEON & CLAY ADVANCED ENGINEERING LAB  
50 Cottage Grove SW  
Grand Rapids, MI 49507  
Brandon Luxford Phone: 616 252 2384

MECHANICAL

Valid To: July 31, 2020

Certificate Number: 1516.01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following tests on automotive metal stampings, automotive exhaust system components, metal stampings, and automotive structural components, using Chrysler, Ford, GM, Toyota, and tier one accounts specifications and standards:

<u>Test</u>	<u>Test Methods</u>
Adhesion	ASTM B571 (para 8), D3359; FLTM BI 106-01; GMW14829
Air Flow	
Leak Rate (Up to 100 SLPM @ 80 psi)	WI-034
Bend Test	ASTM A370 "Bend Test", B571 (para 3)
Chemical	
Optical Emission Spectroscopy (CS, SS) (Al, B, C, Co, Cr, Cu, Mn, Mo, N, Nb, Ni, P, Pb, S, Si, Ti, Va, W)	ASTM E415, E1086; WI-035
Coating Weight	ASTM A90, A428, A924; WI-015
Corrosion Creepback	ASTM B117, D610, D1654; GM9102P
Environmental	
Humidity	ASTM D1735, D2247; WI-028, -029
Salt Spray	ASTM B117; FLTM BI 103-01; GM4298P; ISO 9227(NSS); JIS Z2371
High Heat Exposure (Up to 700° F)	WI-038
Metallographic Evaluation	
Case Depth	ASTM E3, E407; SAE J423; WI-010, -012, -013, -022
Depth of Decarburization	ASTM E3, E407, E1077; WI-010, -012, -013, -022
Grain Size	ASTM E3, E112, E407; WI-010, -012, -013, -021
Inclusion Content	ASTM E3, E45, E340, E407; SAE J422; WI-010, -012, -013, -014
Metallographic Photomicrography	ASTM E3, E407, E883; WI-012, -013
Macroetch	ASTM E340
Microetch	ASTM E3, E407; WI-012
Plating Thickness	ASTM B487, E3, E407; WI-010, -012, -013, -020
Pushout	WI-005, -009
Rockwell Hardness (B, C, N, T)	ASTM E18, E140; WI-008
Tensile, Yield, Elongation, n Value, r Value	ASTM A370 "Tension Test", E8, E517, E646; WI-026, -027

<u>Test</u>	<u>Test Methods</u>
Torque	WI-023, -042
Vibration	
High Temperature (1900° F (1037° C) Up to 180 CFM)	Ford CETP 09.03-E-300; WI-033
Mechanical Cycling (Load Driven Up to 1000 lbs max; Stroke Driven to ±0.5 in)	Ford CETP 09.03-E-300; WI-033
Servo Hydraulic (Closed or Open Loop, Up to 100 Hz)	Ford CETP 09.03-E-300; WI-033
Weld Evaluations	ASTM E340; GM 6122M; PS-9184; WI-011

I. Dimensional Testing<sup>1</sup>

Parameter	Range	CMC <sup>2</sup> (±)	Technique / Method
Length <sup>3</sup> - 1D	Up to 8 in	1 in: 0.00059 in 8 in: 0.00146 in	Blue Light System (GOM ATOS) / MIL-STD-120; WS-102

<sup>1</sup> This laboratory offers commercial dimensional testing service only.

<sup>2</sup> Calibration and Measurement Capability (CMC) is the smallest uncertainty of measurement that a laboratory can achieve within its scope of accreditation when performing more or less routine measurements of nearly ideal measurement standards or nearly ideal measuring equipment. Calibration and Measurement Capabilities represent expanded uncertainties expressed at approximately the 95 % level of confidence, usually using a coverage factor of  $k = 2$ . The actual measurement uncertainty of a specific measurement performed by the laboratory may be greater than the CMC due to the behavior of the customer's device and to influences from the circumstances of the specific measurement.

<sup>3</sup> This test is not equivalent to that of a calibration.



## *Accredited Laboratory*

A2LA has accredited

# **PRIDGEON & CLAY ADVANCED ENGINEERING 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 30<sup>th</sup> day of August 2018.

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

President and CEO  
For the Accreditation Council  
Certificate Number 1516.01  
Valid to July 31, 2020

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