



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

VELTEC LABORATORIES  
12255 Universal  
Taylor, MI 48180  
Billy Martin Phone: 734 946 0440

MECHANICAL

Valid To: December 31, 2019

Certificate Number: 0248.01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform tests on Metals and Alloys:

| <u>Test</u>  | <u>Test Method(s)</u>                              |
|--|--|
| Tensile Testing (Flat Metal, Tubular Product and Full Cross Section Round)   | ASTM E8/E8M, A370 (Sections 6-14)                  |
| UTM-Tensile, Yield, Elongation, Reduction of Area, r and n Values  | JIS Z2241; ISO 6892-1                              |
| Plastic Strain Ratio (r-Value)   | ASTM E517; ISO 10113; JIS Z2254                    |
| Work Hardening Exponent (n-Value)  | ASTM E646; ISO 10275; JIS Z2253                    |
| Bake Hardening Index   | ASTM A1008   |
| Rockwell Hardness<br>(HRBW, HRC, HR15TW, HR30TW, HR45TW)   | ASTM E18, E140                                     |
| Coating Weight<br>Aluminum on Steel<br>Zinc on Steel   | ASTM A428/A428M<br>ASTM A90/A90M, A917 (Section 8) |
| Double Olsen Coating Adhesion  | Chrysler LP-461H-120                               |
| Olsen Cup  | ASTM E643  |
| Bend Test<br>Guided V Bend<br>Guided V Bend for Cold Rolled Sheet<br>Semi-guided Bend Arrangement B<br>Free-Bend Types 1 and 2<br>Bend and Flatten | ASTM E290, A917 (Section 9)                        |

**Test**

**Test Method(s)**

|  |  |
|--|--|
| Mod-r Drawability                      | Tinius Olsen Instruction Booklet #122  |
| Surface Roughness using a Profilometer | SAE J911; ASME B46.1   |
| Sample Preparation                     | ASTM E3  |
| Light Photomicrography                 | ASTM E883  |
| Inclusion Content                      | ASTM E45 (Method A); SAE J422  |
| Micro Etching                          | ASTM E407  |
| Macro Etching                          | ASTM E381  |
| Case Depth (Microscopic)               | SAE J423   |
| Surface Discontinuities                | ASTM F788, F812  |
| Grain Size (Comparison)                | ASTM E112  |
| Decarburization                        | ASTM E1077; SAE J419   |
| Weld Discontinuities                   | Using the methods listed above in accordance with the ASM Handbook Volume 6  |
| Metallography and Microstructures      | Using the methods listed above in accordance with the ASM Handbook Volume 9  |
| Failure Analysis                       | Using the methods listed above in accordance with the ASM Handbook Volume 11 |

**Chemical**

|   |            |
|---|------------|
| Optical Emission Spectroscopy (Chemical Analysis)<br>Carbon and Low-Alloy Steels<br>(Al, B, C, Ca, Cr, Cu, Mn, Mo, Nb, Ni, P, S, Si, Ti, V) | ASTM E415  |
| Stainless Steel<br>(C, Cu, Cr, Mn, Mo, Ni, P, S, Si)  | ASTM E1086 |
| Aluminum Alloys<br>(B, Ca, Cr, Cu, Ga, Mg, Mn, Ni, P, Pb, Si, Ti, V, Zn)  | ASTM E1251 |





## *Accredited Laboratory*

A2LA has accredited

### **VELTEC LABORATORIES**

*Taylor, MI*

for technical competence in the field of

### **Mechanical Testing**

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005 *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 8 January 2009).



Presented this 29<sup>th</sup> day of December 2017

A handwritten signature in black ink, appearing to read "L. S. ...", positioned above a horizontal line.

President & CEO  
For the Accreditation Council  
Certificate Number 0248.01  
Valid to December 31, 2019

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