



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

Q. C. METALLURGICAL LABORATORY
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MECHANICAL

Valid To: July 31, 2013

Certificate Number: 1238.01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following metals (or materials) tests:

Test:

Test Methods:

Mechanical

- Hardness (Rockwell: B, C)
- Brinell Hardness (3000 kg)
- Hydrogen Embrittlement
- Plastic Strain Ratio (r Value)
- Plating Thickness
- Coating Thickness
- Proof (External Threaded)
- Strain Hardening Exponent (n Value)
- Tension (Complete, Axial <= 60 klbs at room temp.)
- Charpy Impact (-90 °F to room temp.), (10 to 360) ft-lbs
- Tape Adhesion

- ASTM E18
- ASTM E10
- ASTM F519
- ASTM E517
- ASTM B487, B499, B530, D7091
- ASTM B244
- ASTM F606; SAE J429, J1199
- ASTM E646
- ASTM E8, A370, F606; SAE J429, J1199
- ASTM E23, A370
- ASTM D3359

Metallographic Evaluation

- Standard Guide for Reflected-light Photomicrography
- Case Depth by Microhardness
- Depth of Decarburization
- Grain Size
- Inclusions
- Microhardness – Knoop/Vickers (100 to 500) g
- Preparation
- Macro Etch
- Microstructure Analysis
- Standard Guide for Qualitative Analysis by Energy-Dispersive Spectroscopy (EDS, SEM)

- ASTM E883
- SAE J423
- ASTM E1077; SAE J121
- ASTM E112
- ASTM E45 (Method A)
- ASTM E384
- ASTM E3
- ASTM E381
- ASTM E1268; ASM Metals Handbooks
- ASTM E1508 (standard less technique)

Corrosion

- Salt Spray
- Susceptibility to Inter-Granular Corrosion

- ASTM B117
- ASTM A262 (Method A)

Test:

Test Methods:

Chemical Spectroscopy

Atomic Absorption

(Al, As, Sb, Ba, Be, Cd, Ca, Cr, Co, Fe, Pb, Mg, Mn,
Hg, Mo, Ni, K, Se, Ag, Na, Sr, Ti, Tl, Sn, V, Zn)

ASTM E1452 (2005), E1812 (1996), E1024

Optical Emission

(C, Co, Cr, Cu, Si, Mn, Mg, S, P, Ni, Cr, Ti, Mo, Al,
V, Pb, Zn, Fe, Nb, W)

ASTM E415, E1086, E1251, E1999

Portable X-ray Fluorescence *

ASTM E572

General Techniques for Obtaining Infrared Spectra for
Qualitative Analysis

ASTM E1252

Standard Test Methods for Rubber-Identification by
Infrared Spectrometry

ASTM D3677

Failure Analysis

ASM HDBK 11

* This laboratory meets A2LA R104 – *General Requirements: Accreditation of Field Testing and Field Calibration Laboratories* for these tests. This analysis can be performed at their facility or in the field.

