



The American Association for Laboratory Accreditation

World Class Accreditation

Accredited Laboratory

A2LA has accredited

ANALYTICAL PROCESS LABORATORIES, INC.

Milwaukee, WI

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 21st day of September 2011.





Peter Abney

President & CEO
For the Accreditation Council
Certificate Number 431.02
Valid to September 30, 2013

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



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

ANALYTICAL PROCESS LABORATORIES, INC.

8222 West Calumet Road

Milwaukee, WI 53223

Joseph Worzala Phone: 414 355 3909

MECHANICAL

Valid To: September 30, 2013

Certificate Number: 0431.02

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

Test:

Hardness

Brinell

Rockwell B, C, 30N, 30T

Microhardness (Knoop)

Tensile

Impact (V-notch and U-notch)

Bend Test

Metallographic Evaluation:

Evaluation of Graphite in Fe Castings

Intergranular Attacks

Plating Thickness

Preparation

Inclusion Content

Grain Size (Comparison and Intercept Methods) ASTM E112 (Section 10 and 13)

Macroetch

Microetch

Depth of Decarburization

Photography using SEM (Qualitative)

Failure Analysis

Weld Operator and Weld Procedure Qualifications ASTM A488;

(Tensile, Bend, Impact, Macroetch)

Physical Properties/NDT

Density

Liquid Penetrant Inspection

Magnetic Particle Inspection

Electrical Conductivity

Test Methods:

ASTM E10

ASTM E18

ASTM E384

ASTM A370, E8;

DIN 10002-1 (*Withdrawn August 2009*)*;

ISO 6892-1;

JIS-Z-2241

ASTM E23;

DIN 10045-1;

ISO 148-1;

JIS-Z-2242

ASTM E190

ASTM A247

ASTM A262 (Methods A, B, E and F)

ASTM B487, B767

ASTM E3

ASTM E45 (Method A)

ASTM E112 (Section 10 and 13)

ASTM E340, E381

ASTM E407

ASTM E1077

APL 83

ASM Handbook Vol. 11

ASTM A488;

ASME Section IX;

AWS B4.0, D1.1;

NAVSEA S9074-AQ-G1B-010/248

ASTM B311

ASTM E165

ASTM E709

ASTM E1004

CHEMICAL

Test:

Chemical Analysis by OES

Carbon and Low Alloy Steel:
(C, Mn, Si, P, S, Cr, Ni, Mo, Cu,
V, W, Nb, Co, Al, Ti, Sn, Pb, B)

Stainless Steel:
(C, Mn, Si, P, S, Cr, Ni, Mo,
Cu, V, W, Nb, Co, Al, Ti, Sn)

Aluminum Alloys:
(Mn, Si, Cr, Ni, Cu, Ti, Fe,
Sn, Zn, Pb, Mg)

Cast Iron:
(C, Mn, Si, P, S, Cr, Ni, Mo, Cu,
V, Al, Ti, Sn, Mg, Pb, B)

Copper Alloys:
(Mn, Si, P, S, Ni, Al, Fe,
Zn, Pb, Sn, Co, Nb)

C, S, N and O by Combustion

ASTM E1019

Melt Preparation for OES

ASTM E1306

Chemical Analysis by EDS
(Semi-quantitative with SEM)
Detectable Elements Down to Boron

ASTM E1508

Chemical Analysis by XRF

ASTM E1621

Slags:
(CaO, SiO₂, FeO, MnO, P₂O₅, S,
Al₂O₃, MgO, Cr₂O₃, TiO₂, V₂O₅,
K₂O, Na₂O, CuO, SrO, ZrO₂, Nb₂O₅)

Trace Elements:
(Ca, Bi, As, Sb, Se, Ag, Ce,
Zr, Zn, Ta, Te, La)

** 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.*