



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

ANALYTICAL PROCESS LABORATORIES, INC.  
8222 West Calumet Road  
Milwaukee, WI 53223  
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MECHANICAL

Valid To: September 30, 2021

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:

<b><u>Test:</u></b>	<b><u>Test Method(s):</u></b>
Bend Test	ASTM E190
Hardness:	
Brinell (500 & 3000 Kg)	ASTM E10, E110; ISO 6506-1
Microhardness (Knoop, 500 g)	ASTM E384
Rockwell (B, C, 30N, 30T, E, 15N)	ASTM E18
Macro Vickers (10 Kg)	ASTM E92
Impact (V-notch and U-notch)	ASTM A370;
-320 °F, -150° F to RT	ASTM E23; DIN 10045-1( <i>Withdrawn 2010</i> )*; ISO 148-1; JIS-Z-2242
Metallographic Evaluation:	
Depth of Decarburization	ASTM E1077
(Microscopic & Microhardness)	
Evaluation of Graphite in Fe Castings	ASTM A247
Inclusion Content	ASTM E45 (Method A)
Intergranular Attacks	ASTM A262 (Practice B, E, and F)
Grain Size (Comparison Method)	ASTM E112 (Sections 10 and 13)
Macroetch	ASTM E340, E381
Microetch	ASTM E407
Photography using SEM (Qualitative)	APL 83
Plating Thickness	ASTM B487
Plating Mass per Unit Area	ASTM B767
Preparation	ASTM E3
Microstructure	ASM Metals Handbook, Vol. 9

**Test:**

**Test Method(s):**

Physical Properties/NDT:

Density  
Electrical Conductivity  
Salt Spray

ASTM B311  
ASTM E1004  
ASTM B117

Tensile

ASTM A370, E8/E8M, B557;  
DIN 10002-1(*Withdrawn 2009*)\*;  
ISO 6892-1;  
JIS-Z-2241

Weld Operator and Weld Procedure Qualifications  
(Tensile, Bend, Impact, Macroetch)

ASTM A488/A488M;  
ASME Section IX;  
AWS B4.0, D1.1;  
NAVSEA S9074-AQ-G1B-10/248

Failure Analysis

Using the methods listed above  
(and on Scope of Accreditation  
0431.03) in accordance with the  
ASM Handbook Volume 11

*\* This laboratory's scope contains withdrawn or superseded methods. As a clarifier, this indicates that the applicable method itself has been withdrawn or is now considered "historical" and not that the laboratory's accreditation for the method has been withdrawn.*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

# **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 17025:2017 *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 2019.

A blue ink signature of the Vice President of Accreditation Services.

Vice President, Accreditation Services  
For the Accreditation Council  
Certificate Number 0431.02  
Valid to September 30, 2021

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