



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

METALINSPEC LABORATORIOS, S.A de C.V.
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MECHANICAL

Valid To: September 30, 2020

Certificate Number: 2728.02

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

Test Description:

Test Method:

Guided Bend Test

ASTM E190

Hardness –

Rockwell – B, C, 15T, 30T, 45T, 15N, 30N, 45N

ASTM E18

Brinell – 3000 kg

ASTM E10

Vickers – HV0.1, HV0.3, HV0.5, HV5, HV10

ASTM E92, E384

Impact – Charpy Method

ASTM E23

Metallographic Preparation

ASTM E3

Tensile – Tension, Yield, Modulus and Elongation:

ASTM E8, A370

n-Value

ASTM E646

r-Value

ASTM E517

Dynamic Testing:

Force Controlled

ASTM E466

Strain Controlled

ASTM E606

Tensile at Elevated Temperature –

(200 to 1100) °C

ASTM E21

Creep

ASTM E139

Stress Rupture

ASTM E139, E292

Test Description:

Test Method:

Salt Spray (fog)	ASTM B117
Determining the Inclusion Content of Steel	ASTM E45
Determining Average Grain Size	ASTM E112
Pyrometry	AMS 2750
Determining Hardenability of Steel	ASTM A255 (sections 6.2 to 6.4.1.1)
Characterizing Duplex Grain Sizes	ASTM E1181
Estimating the Largest Grain Observed in a Metallographic Section (ALA Grain Size)	ASTM E930
Macroetch Testing Steel Bars, Billets, Blooms, and Forging	ASTM E381
Pitting and Crevice Corrosion Resistance of Stainless Steels and Related Alloys by Use of Ferric Chloride Solution	ASTM G48
Detection Susceptibility to Intergranular Attack in Austenitic Stainless Steels	ASTM A262
Detecting Detrimental Intermetallic Phase in Duplex Austenitic/Ferritic Stainless Steels	ASTM A923
Determining Volume Fraction by Systematic Manual Point Count	ASTM E562
Crack Tip Opening Displacement (CTOD) Fracture Toughness Measurement	ASTM E1290 (Withdrawn 2013) ¹
Macroetching Metals and Alloys	ASTM E340
Sampling Steel and Iron for Determination of Chemical Composition	ASTM E1806



Test Description:

Test Method:

Chemical Testing

Optical Spectrometric Chemical Analysis (Al, Cu, Fe, Ni base)	ASTM B954, E415, E1086, E1251, E1999; DIN EN 15079 ²
Determination of Carbon, Sulfur, Nitrogen, and Oxygen in Steel, Iron, Nickel, and Cobalt Alloys by Various Combustion and Fusion Techniques	ASTM E1019
Determination of Hydrogen in Titanium and Titanium Alloys by the Inert Gas Fusion Thermal Conductivity/Infrared Detection Method	ASTM E1447
Determination of Oxygen and Nitrogen in Titanium and Titanium Alloys by Inert Gas Fusion	ASTM E1409

¹ 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.

² This laboratory meets A2LA R104 – *General Requirements: Accreditation of Field Testing and Field Calibration Laboratories* for these tests or calibrations.



Accredited Laboratory

A2LA has accredited

METALINSPEC LABORATORIOS, S.A. de C.V.

Nuevo Leon, MEXICO

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 April 2017).



Presented this 31st day of October 2018.

A handwritten signature in black ink, appearing to read "Luis", written over a horizontal line.

President and CEO
For the Accreditation Council
Certificate Number 2728.02
Valid to September 30, 2020
Revised November 27, 2018

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