CERTIFICATE OF ACCREDITATION

The ANSI National Accreditation Board

Hereby attests that

Element Materials Technology Monterrey

Carr. Monterrey-Saltillo 3279-B, Col. Privadas de Santa Catarina,
Santa Catarina NL, CP 66367 Mexico

Fulfills the requirements of

ISO/IEC 17025:2017

In the field of

TESTING

This certificate is valid only when accompanied by a current scope of accreditation document.
The current scope of accreditation can be verified at www.anab.org.

Jason Stine, Vice President

Expiry Date: 26 February 2027

Certificate Number: L2195.03

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017.
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).

SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

Element Materials Technology Monterrey

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TESTING

Valid to: **February 26, 2027** Certificate Number: **L2195.03**

Mechanical

Specific Tests and/or Properties Measured	Specification, Standard, Method, or Test Technique	Items, Materials or Product Tested	Key Equipment or Technology
Tensile: (Elongation, Reduction of Area, Tensile Strength, Yield Strength) (600 to 60 000) lbf	ASTM E8; ASTM A370 ASTM E21; ISO 6892-1 ISO 6892-2; EN 2002-1 EN 2002-2; BS HR 100 BS 4 A4-1	Flat, Round, Metals, Alloys	Tensile Tester Ovens for Elevated Temperature (200 to 980) ºC
Tensile: (Elongation, Reduction of Area, Tensile Strength, Yield Strength) (600 to 60 000) lbf	ASTM B557	Flat, Round, Cast Wrought, Aluminum Magnesium Products	Tensile Tester
Rockwell Hardness HRBW, HRC	ASTM E18	Metals, Alloys	Hardness Tester
Brinell Hardness (HBW)	ASTM E10	Metals, Alloys	Hardness Tester
Impact (Charpy) (0.185 to 240) ft·lbf	ASTM E23 ASTM A370 ISO 148-1	Metals, Alloys	Charpy Tester
Stress Rupture (Elongation, Reduction of Area, Stress Rupture) (100 to 10 000) lbf	ASTM E139; ASTM E292 BS HR 100; BS 4 A4-1 EN 2002-005	Round, Metals, Alloys	Stress Rupture Frame (300 to 980) ºC
Creep (100 to 10 000) lbf	ASTM E139	Round, Metals, Alloys	Elevated Temperature (300 to 1000) ºC
IGA/IGO End Grain Pitting	SOP # IGA; ASTM E3	Metals, Alloys	Microscopical Methods
Metallography – Alloy Depletion	SOP # ALDEP; ASTM E407; ASTM E3	Metals, Alloys	Microscopical Methods

Uncontrolled If Printed

Mechanical

Specific Tests and/or Properties Measured	Specification, Standard, Method, or Test Technique	Items, Materials or Product Tested	Key Equipment or Technology
Metallography – Grain Size	ASTM E112; ASTM E1181; ASTM E930; ASTM E1351 GE E50TF133	Metals, Alloys Nickel Alloys	Microscopical Methods
Metallography – Sample Preparation	ASTM E3	Metals, Alloys	Sample Prep
Metallography – Macroetching	ASTM E3 ASTM E340; ASTM A604	Metals, Alloys	Sample Prep
Metallography – Microetching	ASTM E407	Metals, Alloys	Microscopical Methods
Metallography – Alpha Case	ASTM E407; GE P3TF19 SOP # ALPHA; PWA E142	Metals, Alloys	Microscopical Methods
Metallography – Microstructure	SOP# MET; AMS 2380	Metals, Alloys	Microscopical Methods
Metallography – Delta Ferrite	AMS 2315 ASTM E1245	Metals, Alloys	Microscopical Methods
Metallography – Inclusion Rating Method A	ASTM E45	Metals, Alloys	Microscopical Methods
Heat Treating of Test Samples	AMS 2750	Metals, Alloys	Heat Treating of specimens for testing only

Non-Destructive

Specific Tests and/or Properties Measured	Specification, Standard, Method, or Test Technique	Items, Materials or Product Tested	Key Equipment or Technology
Non-Destructive Penetrant Inspection	ASTM E 1417 Type 1 Methods: A and D Sensitivity Levels: 3-4	Metal Product	Black Light
Macroetching Inspection	SOP # EPI/PIL2; Snecma DMC 0330 DMC 0095, DPM 12-300, DMC 9513; GE P4TF4, P&W MCL Code 2 Method G	Metals, Alloys	Etch Process Line
Ultra-Sonic Inspection Immersion Testing	GE P3TF52 AMS-STD-2154 Type 1 MIL-STD-2154 Type 1 SOP# NDEMX 08 SOP# NDEMX 24	Metal Alloys	Ultrasonic Scanning System NDT Probes and Transducers

Chemical

Specific Tests and/or Properties Measured	Specification, Standard, Method, or Test Technique	Items, Materials or Product Tested	Key Equipment or Technology
Chemical Analysis (ONH detection by inert gas fusion analysis)	ASTM E1409; ASTM E1447; ASTM E1019 SOP# ONH-Ti-Fe	Titanium and Titanium Alloys. Steel, Iron, Nickel, and Cobalt Alloys.	Inert Gas Fusion Analyzer LECO ONH 836
Chemical Analysis (C&S detection by combustion analysis)	ASTM E1019 SOP# CS 844	Steel, Iron, Nickel, and Cobalt Alloys	Leco Carbon and Sulfur Analyzer Model CS844

Note:

1. This laboratory offers commercial testing service.
2. This scope is formatted as part of a single document including Certificate of Accreditation No. L2195.03.

Jason Stine, Vice President