



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

ELEMENT MATERIALS TECHNOLOGY DALEVILLE
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MECHANICAL

Valid To: August 31, 2024

Certificate Number: 0174.02

In recognition of the successful completion of the A2LA evaluation process (including compliance to R223 – Specific Requirements – GE Aviation S-400 Accreditation Program), accreditation is granted to this laboratory to perform the following types of tests on materials, metals and fasteners:

Test(s):

Test Method(s):

Physical Properties:

Bend

ASTM A370, E290, E190

Coating and Plating Adhesion

ASTM B571 (Less Sec. 6 & 10), C633, E290, F1147; Federal Test Method Standard 141, Method “Adhesion (Wet) Tape Test”

Creep, Stress Rupture

ASTM E139, E292

End Quench Hardenability - Jominy

ASTM A255; SAE J406

Hardness Testing

Rockwell (A, B, C, E, F)

ASTM A370, E18; Bell Helicopter BPS 4467

Rockwell Superficial (15N, 30N, 45N, 15T, 30T, 45T)

ASTM A370, E18; Bell Helicopter BPS 4467

Brinell Hardness (500, 1000, 3000 Kg)

ASTM A370, E10

Microhardness

Vickers (50, 100, 200, 300, 500, 1000g)

ASTM B578, E92, E384; NASM 1312-6

Knoop (25, 50, 100, 200, 300, 500, 1000g)

ASTM B578, E92, E384; NASM 1312-6

Hydrogen Embrittlement

ASTM F519

Impact Testing

Charpy Impact (Room Temperature to 150°F)

ASTM A370, A923, E23

Izod Impact (Room Temperature)

ASTM E23

Test(s):

Test Method(s):

Physical Properties (cont'd):

Tension / Tensile

Elevated Temperature Tension / Tensile
Strain Ratio (r value)
Strain-Hardening (n value)
Tensile (60K max)

ASTM E21
ASTM E517
ASTM E646
ASTM A370, B557/B557M, E8/E8M, E345,
F1147; ISO 6892-1

Specimen Conditioning (HT)

MTP 2070¹

Metallographic Evaluations:

Alpha Case

PTP 1007¹; GEAE P3TF19, P3TF32;
PW MCLM E142

Bond Integrity / Oxide Content / Cracking

PTP 1060¹; GEPG P16B-AG11;
PW MCLM E53

Case Depth

ARP 1820; SAE J423

Coating / Plating Thickness (Metallographic)

ASTM B487

Corrosion and Exfoliation Corrosion Susceptibility

ASTM A262 (Practice A, E), A763 (Practice W),
A923, G28 (Method A), G34, G110;
PTP 1048¹

Depth of Decarburization

AMS-H-6875; ASTM E1077, F2328

Grain Size

ASTM E112, E883, E930, E1181

Image Analysis (Second Phase Analysis)

ASTM E1245

Inclusion Content

ASTM E45; SAE J422

Macroetching

ASTM A604, E340, E381

Microetching

ASTM E407

Microstructure Evaluation

ASM Metals Handbook (Volume 7, 8th Edition);
NAS 4002, 4004; PTP 1010¹; FTP 4004¹

Preparation

ASTM E3

Recast / Re-melt

PTP 1049¹

Surface Finish

SAE J448

Visual / Microscopic Metallurgy

GE P3TF3 (PTP 1055¹)



Test(s):

Metallographic Evaluations (cont'd):

Welder Certification / Weld Procedure Testing
(Visual, Mechanical)

Test Method(s):

Using the methods listed above in accordance
with:

ASME Section IX; AWS: D1.1/D1.1M,
D1.2/D1.2M, D1.3/D1.3M, D1.5/D1.5M,
D1.6/D1.6M, D9.1/D9.1M, D10.9/D10.9M,
D17.1/D17.1M;
MIL-STD-248D (Withdrawn 1997)²;
NAVSEA S 9074-AQ-GIB-010/248

Environmental Simulation:

Salt Spray

ASTM B117, D1654; NASM 1312-1;
GM4298P (Superseded 2010)²

¹In-House Test Method.

²This 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

ELEMENT MATERIALS TECHNOLOGY DALEVILLE

Daleville, IN

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 laboratory also meets the requirements of R223 – Specific Requirements – GE Aviation S-400 Accreditation Program. 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 11th day of July 2022.

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

Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 0174.02
Valid to August 31, 2024

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