



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

AK STEEL CORPORATION, RESEARCH & INNOVATION CENTER

Mechanical Testing Laboratory

6180 Research Way

Middletown, OH 45005

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MECHANICAL

Valid To: October 31, 2019

Certificate Number: 0243.02

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 adhesives:

Test

Test Method*

Deformation

Adherence: Reversed Bend

QSOP 05-008

Ball Punch Deformation: Olsen Cup

QSOP 05-029

Hardness

Rockwell (A, B, C, F)

ASTM E18; QSOP 05-011

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

ASTM E18; QSOP 05-011

Vickers (10 Kg)

ASTM E92;
QSOP 05-013,
QSOP 05-319

Microhardness: Knoop (500) g
Vickers (500, 1000) g

ASTM E384, E92;
QSOP 05-013,
QSOP 05-319

Surface

Ridging Surface Analysis

QSOP 05-009

Surface Roughness and Characterization

ANSI/ASME B46.1;
QSOP 05-027

Test

Test Method*

Impact

Charpy

ASTM A370, E23;
QSOP 05-320

Plastic Strain Ratio

Stretch r Value

ASTM E517;
JIS Z2254;
ISO 10113;
QSOP 05-003

Tension

Room Temperature (<= 60,000 lbs)

ASTM A370, E8/E8M;
ISO 6892-1;
JIS Z2241;
QSOP 05-002, 05-311,
05-318

Elevated Temperature (<= 2,000 °F)

ASTM E21;
QSOP 05-311

Tension Strain Hardening Exponent:
n-value

ASTM E646;
QSOP 05-002, 05-311,
05-318

*All QSOP methods are in-house methods



Accredited Laboratory

A2LA has accredited

AK STEEL CORPORATION, RESEARCH & INNOVATION CENTER

Middletown, OH

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 13th day of September, 2017.

A handwritten signature in black ink, written over a horizontal line.

President and CEO
For the Accreditation Council
Certificate Number 243.02
Valid to October 31, 2019

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