



This certificate is granted and awarded by the authority of the Nadcap Management Council to:

Element Hamburg

*Lahnstrasse 26
Mulheim, 45478
Germany*

This certificate demonstrates conformance and recognition of accreditation for specific services, as listed in www.eAuditNet.com on the Qualified Manufacturers List (QML), to the revision in effect at the time of the audit for:

Materials Testing Laboratories

Certificate Number: 17174198520
Expiration Date: 31 August 2023
Accreditation Length: 24 Months

Jay Solomond
Executive Vice President & Chief Operating Officer

SCOPE OF ACCREDITATION

Materials Testing Laboratories

Element Hamburg
Lahnstrasse 26
Mulheim, 45478
Germany

This certificate expiration is updated based on periodic audits. The current expiration date and scope of accreditation are listed at: www.eAuditNet.com - Online QML (Qualified Manufacturer Listing).

In recognition of the successful completion of the PRI evaluation process, accreditation is granted to this facility to perform the following:

AC7101/1 Rev G - Nadcap Audit Criteria for Materials Testing Laboratories – General Requirements for All Laboratories (to be used on audits on/after 5 May 2019)

AC7101/3 Rev D - Nadcap Audit Criteria for Materials Testing Laboratories – Mechanical Testing (to be used on audits on/after 4 December 2016)

- (A) Room Temperature Tensile
- (A1) Room Temperature Tensile with Elastic (Young's) Modulus
- (B) Elevated Temperature Tensile
- (N) Impact
- (XN) Bend Testing

AC7101/4 Rev F - Nadcap Audit Criteria for Materials Testing Laboratories – Metallography and Microindentation Hardness (to be used on/after 14 August, 2016)

- (L0) Metallographic Evaluation
- (L1) Microindentation (Interior)
- (L10) Near Surface Examinations – Carburization / Decarburization
- (L11) Grain Size
- (L12) Inclusion Rating
- (L5) Near Surface Examinations – Microindentation (Surface–Case Depth)
- (XL) Macro Examination

AC7101/5 Rev D - Nadcap Audit Criteria for Materials Testing Laboratories – Hardness Testing (Macro) (to be used on audits BEFORE 07-May-2023)

- (M1) Brinell Hardness
- (M2) Rockwell Hardness
- (M3) Vickers Hardness

AC7101/7 Rev D - Nadcap Audit Criteria for Materials Testing Laboratories – Mechanical Testing

Specimen Preparation (to be used on audits on/after 15 May 2016)

(Z) Standard Specimen Machining

ISO/IEC - Currently accredited by an ILAC approved source

Lab Type - Lab Type

Independent