

SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

BRIEM ENGINEERING

4134 Rider Trail North Saint Louis, MO 63045

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MECHANICAL

Valid To: July 31, 2020 Certificate Number: 3036.01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following tests on <u>plastics</u>, <u>metals</u>, <u>and fasteners</u>:

| <u>Test Description</u> | Test Method(s) |
|---|--|
| Coating Thickness by Microscopical Examination of a Cross Section | ASTM B487; NASM 1312-12 |
| Coating Thickness by SEM | ASTM B748 |
| Tension Testing of Metals | ASTM A370, E8/E8M |
| Brinell Hardness (3000gf) | ASTM E10 |
| Rockwell Hardness (B, C, 30N, 30T) | ASTM E18, F606/F606M |
| Average Grain Size (Comparison) | ASTM E112 |
| Microhardness (HK 0.1, 0.5; HV 0.1, 0.5) | ASTM E384 |
| Fastener Tensile (Axial & Wedge) | ASTM F606/F606M |
| Inclusion Content | ASTM E45 (Method A) |
| SEM/EDS Analysis (Semi-quantitative) | ASTM E1508; Hitachi S2460N SEM Manual; IXRF EDS Manual |
| Liquid Penetrant Inspection (Visible & Fluorescent) | ASTM E1417/E1417M (Methods A, D) |
| Magnetic Particle Inspection (Yoke, Visible & Fluorescent) | ASTM E1444/E1444M |
| Graphite in Cast Iron | ASTM A247 |
| Failure Analysis | Using the methods listed above in accordance with ASM Handbook Volume 11 |

(A2LA Cert. No. 3036.01) 09/04/2018

Page 1 of 1



Accredited Laboratory

A2LA has accredited

BRIEM ENGINEERING

Saint Louis, MO

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).

SEAL MENTON TO CREDITATION OF THE PROPERTY OF

Presented this 4th day of September 2018.

President and CEO

For the Accreditation Council Certificate Number 3036.01 Valid to July 31, 2020