



THE AMERICAN ASSOCIATION FOR
LABORATORY ACCREDITATION

ACCREDITED LABORATORY

A2LA has accredited

AMAC ENTERPRISES

Parma, 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 18 June 2005*).



Presented this 23rd day of September 2008.

A handwritten signature in cursive script, reading "Peter Abney".

President and CEO
For the Accreditation Council
Certificate Number 1153.01
Valid to August 31, 2010

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

SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

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MECHANICAL

Valid To: August 31, 2010

Certificate Number: 1153.01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following fastener tests:

<u>Test</u>	<u>Test Methods</u>
Sampling	Per product specification or ASME/ANSI B.18.18.1
Hardness (Rockwell A, B, C, 15N, 30N; Brinell)	ANSI/ASME 18.2.3.1M ¹ ; ASTM E10, E18, F568, F606, F606M ¹ ; Chrysler MS-3517, MS-5766, MS-6149, MS-6179, MS-7483, MS-8253, PS-1; Ford ES-21001-S100, ESS-M1A160-A, ESS-M1A170-B, WA950, WA951, WE952; GM 260M ¹ , 275M ¹ , 280M ¹ , 300M ¹ , 500M ¹ , 510M ¹ ; GMW 25; SAE J82, J417, J429, J995, J1199, J1237; ISO 898-1
Microhardness (Vickers)	ASTM E384, E1077; Chrysler MS-4515, MS-8253, PS-2, PS-8; Ford WD952; GM 6010M ¹ , 6170M ¹ , 6171M ¹ , 6202M ¹ , 6217M ¹ ; SAE J423, J1237
Tensile (Axial, Wedge)	ANSI/ASME B18.2.3.1M ¹ ; ASTM E8, E8M ¹ ; ASTM F568, F606, F606M ¹ ; Chrysler MS-3517, MS-6149, MS-7483; Ford ES-21001-S100, Ford ESS-M1A170-B, WA950; GM 260M ¹ , 275M ¹ , 280M ¹ , 300M ¹ , 500M ¹ ; SAE J82, J429, J1199; GMW 25
Stress Durability (Hydrogen Embrittlement)	Chrysler PS-Plating; SAE J81; PS-9500; WX 100; WSS-M99A3-A; GME 00252; GMW 3359; SAE/USCAR-7

<u>Test</u>	<u>Test Methods</u>
Decarburization	ASTM E1077; Ford ES-21001-S100, WA950, WA951; GMW 25; GM 6104M ¹ ; SAE J121, J121M ¹
Coating Thickness	ASTM B487, B499, B555, B568; WX100; GM 7111M ¹ , 7112M ¹ , 7113M ¹ , 7114M ¹ , 4260P; GM 6173, 6174, 4345, E00252; GMW 3044, 3359; PS-10378, PS-11036
Torque Tension	Chrysler PS-5873; Ford WZ100, WX100, WZ101; GM 4435M ¹ , 7112M ¹ , 7113M ¹ , 7114M ¹ , 9064M ¹ ; GM E00252; GMW 3044, 3359, 3179; GM 6173; PS-10378; SAE/USCAR-11; SAE J174, J174M ¹
Adhesive Torque	Chrysler PF-6616; Ford ES-20007-S100, ES-20010-S100, WX200; GM 6175M ¹ , 6194M ¹ ; IFI 125, 525; GM 6193; ESA-M2G200-A
Nylon Torque	Chrysler PF-5144, PF-6157; Ford WA970; IFI 124, 524; GM 6189; PF4730; PF5461
<u>Environmental Simulation:</u>	
Salt Spray	ASTM B117; GM 4298P, 6035; SAE/USCAR-1
Metallographic Preparation	ASTM E3
Macroetching	ASTM E340
<u>Metallographic Evaluation:</u>	
Discontinuities	ASTM F788, F788M ¹ , F812, F812M ¹ ; Chrysler PF-5188; Ford ES-20001-S100, ES-2000-S100; GM 6102, 6103; GMW 25; SAE J122, J123, J1061

¹The laboratory is accredited for the test methods listed above. The accredited test methods are used in determining compliance with the material specifications noted; however, the inclusion of these material specifications on this Scope does not confer laboratory accreditation to the material specifications. Inclusion of these material specifications on this Scope also does not confer accreditation for every method embedded within the specification. Only the methods listed above on this Scope are accredited.