Technical Definition

Plating Thickness Test on Fasteners Zinc plated steel

Kit 12-3 2023 PTP Metallic

Please comply with the HSE policy of your laboratory for each test performed.

Instructions to participant laboratories

Please read these instructions carefully BEFORE starting the tests.

1. One specimen is supplied to each participant – 1 result must be provided.

Blank description: Zinc plated hex bolt per SAE J429 Grade 5.

Dimensions: Ø ½" – 13 UNC x 5" long

If one result is missing your test will be considered as an outlier. A RCA shall be completed.

- 2. Each participant is responsible for the metallographic preparation and microscopic examination of their sample using polishing and etching techniques detailed within **ASTM B487-20.**
- 3. All tests are to be performed at room temperature in accordance with the methods of **ASTM B487-20**.

The zinc plating is less than 0,001".

The tests shall be performed respecting the following conditions:

- One operator only
- One testing machine only
- Tests performed in sequence
- 4. The following information need to be reported:

Characteristic	Unit	Significant digits	Mandatory / Not mandatory	Evaluated Yes/no
Minimum plating thickness around the shank diameter	inch	X,XXXXX	Mandatory	No
Maximum plating thickness around the shank diameter	inch	x,xxxx	Mandatory	No
Average plating thickness around the shank diameter	inch	x,xxxxx	Mandatory	Yes
Number of readings	N/A	Х	Mandatory	No

All evaluated characteristics will be analysed according to the algorithm A and S (ISO 13528 – 2022) and evaluated using z-score.

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5. Testing shall start **as soon as test specimens are received**. Please contact the following e-mail address for any technical or administrative query.

Submission date	November 30 th , 2023	
Technical and administrative	info@ptpscheme.com	
support		

6. Instructions for submission of results are detailed on the website:

https://ptpscheme.com

- 7. To ensure the confidential treatment of your results in the final report, you will be allocated a unique identity number when you register for the program.
- 8. Collusion and falsification of your PTP results are totally forbidden. In case of identification or suspicion of collusion or falsification, the laboratory will be excluded from the program and the sponsors will be immediately informed. The sponsors could ask you for proof of your results, so be sure to conserve data, curves and specimens.
- 9. The tested specimens do not need to be sent back to the PTP office.

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The Internal Round Robin participation (IRR) is **optional** and **independent** from your PTP participation. <u>Confidentiality</u>: The IRR results and reports are confidential and only accessible by your laboratory. They are not shared with the scheme sponsors or any other accreditation or certification bodies.

APPENDIX: Instructions for IRR participation

The extra samples shall be tested according to the following table:

	Operator 1	Operator 2	Operator 3	Operator 4	Operator X
Test machine 1	PTP kit (1 sample)	1 sample	1 sample	1 sample	1 sample
Test machine 2	1 sample				
Test machine 3	1 sample				
Test machine Y	1 sample				

Operator 1 (OP1) is to be the most experienced operator currently conducting tests on a regular basis and shall perform tests on all machines (TM1, TM2, TM3...)

Test Machine 1 (TM 1) is to be the most utilised machine for this test in your laboratory and shall be tested by all operators (OP1, OP2, OP3...)

<u>Example:</u> A laboratory has 2 operators and 3 test machines. They receive a PTP kit and 3 extra specimens.

Operator 1 shall test the PTP kit on TM1, 1 specimen on TM2 and 1 specimen on TM3. Operator 2 shall test 1 specimen on TM1.

The IRR results have to be submitted on a separate results form available on the PTP website. The identification of operators and test machines you provide will appear on the IRR final report. These identifications will not be seen by other laboratories.

The IRR results will be classified against the acceptance classes of the kit 12-3-2023.

<u>Reminder:</u> Laboratories are not permitted to switch specimens between the PTP kit and IRR samples. The traceability of the samples will be checked during the evaluation. Laboratories found to have switched samples will invalidate their PTP participation.

VERSION HISTORY

Version Date	Version N°	Changes
10/07/2023	1	Document creation
10/10/2023	2	Update submission date