Revision No. 1 Page 1 of 3 TO. Kit 6-5-2022 PTP Metallic

Technical Definition

Rockwell Hardness Test HR15Y- CuA1

You shall respect the HSE policy of your laboratory for each performed test.

Please read these instructions carefully BEFORE starting the tests.

- 1. One specimen (\emptyset 80 x 10 mm) is supplied to each participant 4 results must be provided. If one result is missing, your test will be considered as an outlier. A RCA shall be completed.
- 2. No additional machining of the specimen is required. However, it is allowed to prepare the surface of the specimen if needed.
- 3. Each participant is required to determine the hardness at four **single** positions on the specimen.

Measurements shall be performed at **core**.

4. All tests are to be performed at room temperature in accordance with **ASTM E18-20**.

Correspondence tables are not allowed for a PTP participation.

The tests shall be performed respecting the following conditions:

- One operator only
- One testing machine only
- Tests performed in sequence
- 5. The following characteristic is to be reported:

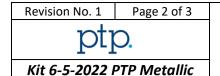
| Characteristic | Unit | Significant digits | Mandatory / Not mandatory | Evaluated Yes/no |
|-----------------------------|------|--------------------|---------------------------|---------------------|
| Room temperature | °C | XX,X | Mandatory | No |
| Force applied | kgf | XX | Mandatory | No |
| Test force application time | S | XX | Mandatory | No |
| Rockwell "Y" hardness | HRY | XX,X | Mandatory | Yes |

All evaluated characteristics will be analysed according to the algorithm A and S (ISO 13528 – 2015) and evaluated using z-score.

Please be aware that laboratories who obtained a standard deviation equal to zero (i.e. who provided 4 times the same result) **will not be included** in the statistical population.

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

| Shipment date from: | January 2022 | |
|------------------------------|----------------------------|--|
| Submission date : | May 1 st , 2022 | |
| Technical and administrative | info@ptpscheme.com | |
| support : | | |



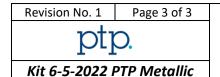
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7. Instructions for submission of results are detailed on the website:

https://ptpscheme.com

- 8. 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.
- 9. 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 proofs of your records and analyses, so be sure to conserve data, curves and specimens.
- 10. The tested specimen does not need to be sent back to the PTP office.



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APPENDIX: Instructions for IRR participation

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.

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

| | Operator 1 | Operator 2 | Operator 3 | Operator 4 | Operator X |
|-------------------|------------|------------|------------|------------|------------|
| Test machine | PTP kit (1 | 1 sample | 1 sample | 1 sample | 1 sample |
| 1 | sample) | 1 Sample | 1 Sample | 1 Sample | 1 Sample |
| Test machine | 1 sample | | | | |
| 2 | | | | | |
| 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 6-5-2022.

<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.

REVISION HISTORY

| Issue Date | Issue N° | Changes |
|------------|----------|-------------------|
| 15/12/2021 | 1 | Document creation |