

## **Technical Definition**

## Rockwell/Vickers Hardness Test - 35NCD16

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

### Instructions to participant laboratories

#### Please read these instructions carefully BEFORE starting the tests.

- 1. One specimen (Ø 20 x 10 mm) is supplied to each participant − 4 results must be provided. In case of :
  - loss or deterioration of PTP sample please contact your sponsor for replacement kit.
  - exclusion of a test specimen results by yourself, you shall provide a short root cause analysis.
- 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 positions on the specimen. The chamfered face, as shown in the figure below, is the surface to be tested.



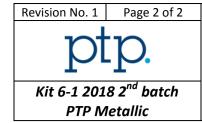
- 4. All tests are to be performed at room temperature in accordance with the following requirements:
  - **ASTM E18-17e1** if performing a Rockwell "C" test
  - ASTM E92-2017
  - ASTM E384 17 or EN ISO 6507-1 (2005), if performing a Vickers test.

HV load advised: 10 kg

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 "C" hardness	HRC	XX,X	At least one type of	Yes
Vickers hardness	HV	XXX	hardness result has to be provided	Yes



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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 email address for any technical or administrative query.

Submission date :	May 1 <sup>st</sup> , 2018
Technical and administrative support :	info@ptpscheme.com

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 PTP.

### **REVISION HISTORY**

Issue Date	Issue N°	Changes
16/10/2018	1	Document creation