Technical Definition

Charpy Impact (Ambient Temperature) – 300 M Steel

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

Please read these instructions carefully BEFORE starting the tests.

1. Five blanks (Ø 22 x 60 mm) are supplied to each participant – 5 results must be provided. If one result is missing your test will be considered as an outlier. A RCA shall be completed.

2. The test specimen shall be machined in accordance with the following instructions:

   Each test piece shall be 55 mm long and of square section with 10 mm sides. In the center of the length, there shall be a V-notch of 45°, 2 mm deep with a 0.25 mm radius of curvature at base of notch. The dimensional tolerances stated in the chosen test standard apply.

3. All tests are to be performed in accordance with the requirements of **ASTM E23-18** or **EN ISO 148-1 (2016)** at **room temperature**.

   The tests shall be performed respecting the following conditions:

   - One operator only
   - One testing machine only
   - Tests performed in sequence

4. The following information is to be reported:

Characteristic	**Unit**	**Significant digits**	**Mandatory / Not mandatory**	**Evaluated** Yes/no
Room temperature	°C	XX,X	Mandatory	No
Length	mm	XX,XX	Mandatory	No
Height	mm	XX,XX	Mandatory	No
Width	mm	XX,XX	Mandatory	No
Height below the notch	mm	XX,XX	Mandatory	No
Type of pendulum (C type or U type according to ASTM E 23-16b description)	N/A	N/A	Mandatory	No
Striker radius	mm	X,XX	Mandatory	No
Absorbed Energy	J	X,X	Mandatory	**Yes**
Lateral expansion	mm	X,XX	Not mandatory	**Yes**
Shear fracture	%	X,XX	Not mandatory	**Yes**
Picture of Notch with measurements	N/A	N/A	Mandatory	No

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

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	**June 1st, 2023**
Technical and administrative support	info@ptpscheme.com

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 proofs of your records and analyses, so be sure to conserve data, curves and specimens.

9. The tested specimens do not need to be sent back to the PTP office.

APPENDIX: Instructions for IRR participation

The Internal Round Robin participation (IRR) is **optional** and **independent** from your PTP participation.
Confidentiality: 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 1	PTP kit (5 samples)	3 samples	3 samples	3 samples	3 samples
Test machine 2	3 samples				
Test machine 3	3 samples				
Test machine Y	3 samples				

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…)

Example: A laboratory has 2 operators and 3 test machines. They receive a PTP kit and 9 extra specimens.
Operator 1 shall test the PTP kit on TM1, 3 specimens on TM2 and 3 specimens on TM3.
Operator 2 shall test 3 specimens 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 5-1-2023.

Reminder: 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
8/12/2022	1	Document creation