

Version No. 1	Page 1 of 2	<div>Technical Definition</div> <div>Grain Size Determination – Inconel 718</div>
<div>ptp.</div>		
Kit 10-1 2023 PTP Metallic		

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

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

- One specimen ( $\varnothing$  20 x 12 mm) is supplied to each participant – 1 result must be provided.
- No additional machining of the specimen is required.
- Each participant is required to prepare the specimen for evaluation using their usual polishing and etching techniques for this evaluation.
- Determine the average grain size at the **center** of the specimen in accordance with **ASTM E112-13(2021)** and the approved method routinely used by the laboratory (i.e. grain intercept, comparison etc).  
If the method indicated in this instruction is very different from the method you are used to use, you can contact directly your sponsor.
- The following information is to be reported:

Characteristic	Unit	Significant digits	Mandatory / Not mandatory	Evaluated Yes/no
Description of the sample preparation	N/A	N/A	Mandatory	No
Evaluation method	N/A	N/A	Mandatory	No
Average grain size at the center of the specimen	ASTM	X,X	Mandatory	<b>Yes</b>

All evaluated characteristics will be analysed according to the algorithm A (ISO 13528 – 2022) and evaluated using z-score. The acceptance classes will be reviewed by technical experts to match the requirements of the test standard.

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

<b>Submission date :</b>	<b>June 1<sup>st</sup>, 2023</b>
<b>Technical and administrative support :</b>	<a href="mailto:info@ptpscheme.com">info@ptpscheme.com</a>

- Instructions for submission of results are detailed on the website:

<https://ptpscheme.com>

- 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.
- 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.
- The tested specimen does not need to be sent back to the PTP office.

Version No. 1	Page 2 of 2	<div>Technical Definition</div> <div>Grain Size Determination – Inconel 718</div>
<div>ptp.</div>		
Kit 10-1 2023 PTP Metallic		

#### 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
<b>Test machine 1</b>	PTP kit (1 sample)	1 sample	1 sample	1 sample	1 sample
<b>Test machine 2</b>	1 sample				
<b>Test machine 3</b>	1 sample				
<b>Test machine Y</b>	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...)

Example: 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 10-1-2023.

**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

Issue Date	Issue N°	Changes
07/12/2022	1	Document creation.