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| Revision No. 3                   | Page 1 of 2 | <div>Technical Definition</div> <div>Inclusion rate – Picture analysis</div> |
| <div>ptp.</div>                  |             |                                                                              |
| <div>Kit 10-4 PTP Metallic</div> |             |                                                                              |

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

**Instructions to participant laboratories**

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

1. Three pictures are supplied to each participant – One result per picture must be provided. If one result is missing, your test will be considered as an outlier. A RCA shall be completed. The measurements have to be performed on the provided **TIFF** files.
2. The inclusion rate has to be determined within the red rectangle on the picture without modifying the proportions of the picture.
3. Each participant is required to determine the following parameter on each picture according to the **ASTM E45-18a** standard :
  - Type of inclusion
  - Severity class for each identified inclusion (one inclusion type by picture) total **thin and heavy** series to be reported.

The tests shall be performed respecting the following conditions:

- One operator only
  - One dedicated measurement method
4. Results are to be reported as follows for each picture:

| Characteristic                 | Mandatory / Not mandatory | Evaluated<br>Yes/no |
|--------------------------------|---------------------------|---------------------|
| Method description (few words) | Mandatory                 | No                  |
| Type of inclusion              | Mandatory                 | <b>Yes</b>          |
| Thin severity                  | Mandatory                 | <b>Yes</b>          |
| Heavy severity                 | Mandatory                 | <b>Yes</b>          |

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

The accepted inclusion types will be determined by a metallography expert.

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

|                                        |                                                            |
|----------------------------------------|------------------------------------------------------------|
| Submission date :                      | <b>December 31<sup>st</sup>, 2022</b>                      |
| Technical and administrative support : | <a href="mailto:info@ptpscheme.com">info@ptpscheme.com</a> |

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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.

#### REVISION HISTORY

| Issue Date | Issue N° | Changes           |
|------------|----------|-------------------|
| 19/08/2022 | 1        | Document creation |