

## Technical Definition

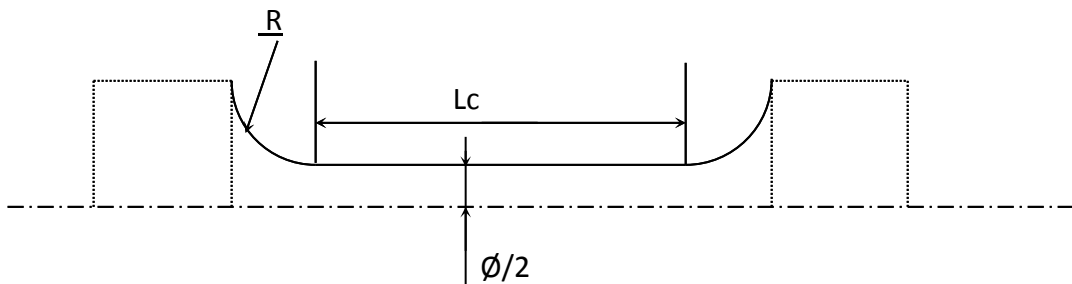
### Tensile Test (Ambient Temperature) –Al 7075

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.**

- Five blanks ( 12 x 12 x 75 mm) are supplied to each participant – 5 results must be provided.  
In case of :
  - loss or deterioration of PTP sample(s) please contact your sponsor for replacement kit.
  - exclusion of a test specimen results by yourself, you shall provide a short root cause analysis.
- The specimens shall be machined as shown below:



	SI unit (mm)			Imperial unit (inch)		
	Diam ( $\phi$ )	Lc	R	Diam ( $\phi$ )	Lc	R
<i>Tolerance</i>	$\pm 0.127$	min	min	$\pm 0.005$	min	min
<i>Dimension</i>	6.35	36.00	4.77	0.25	1.40	0.19

- All tests are to be performed in accordance with the methods of **ASTM B557-15**, **ISO 6892-1 (2016)** or **EN 2002-1 (2005)**. The method to use is **strain rate control** up to yield strength. The test after yield strength can be controlled in any of the ways detailed within the indicated standards (extensometer or crosshead)

Temperature: Room Temperature - Ambient

Strain rate control: Speed up to yield strength:  $0.005 \text{ min}^{-1}$

Speed up to rupture:  $0.05 \text{ min}^{-1}$

The tests shall be performed respecting the following conditions:

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



**Kit 1-2 2018 second batch**  
**PTP Metallic**

## Technical Definition

Tensile Test (Ambient Temperature) –AI 7075

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
Specimen diameter and gauge length before and after testing	mm	XX,XX	Mandatory	No
Test method	N/A	N/A	Mandatory	No
Control mode up to yield strength and rate used	N/A	N/A	Mandatory	No
Control mode after yield strength and rate used	N/A	N/A	Mandatory	No
Ultimate Tensile Strength (Rm)	MPa	XXX	Mandatory	Yes
Yield Strength (Rp 0,2)	MPa	XXX	Mandatory	Yes
Elongation 4D	%	XX,X	At least one result has to be provided	Yes
Elongation 5D	%	XX,X		Yes
Reduction of Area	%	XX,X	Not mandatory if not qualified	Yes
Young's Modulus	GPa	XX,X	Not mandatory if not qualified	Yes

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

<b>Submission date :</b>	<b>June 15th, 2018</b>
<b>Technical and administrative support :</b>	<a href="mailto:info@ptpscheme.com">info@ptpscheme.com</a>

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 PTP.

### REVISION HISTORY

Issue Date	Issue N°	Changes
12/04/2018	1	Document creation