

## Technical Definition

### Hydrogen Embrittlement – 4340 Steel

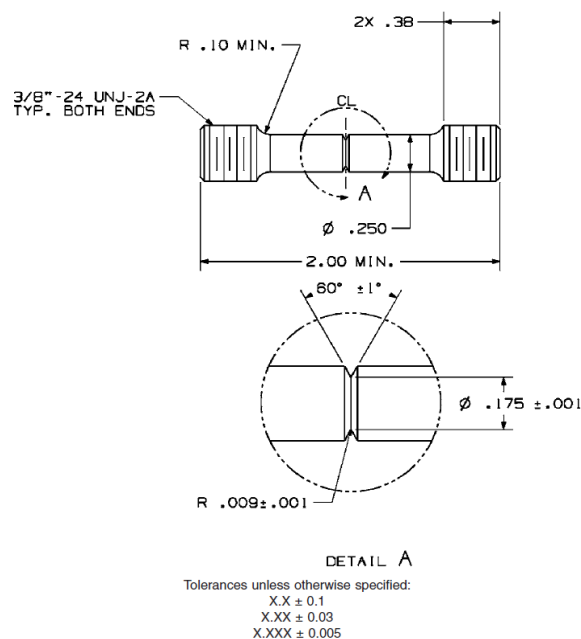
*You shall respect the HSE policy of your laboratory for each performed test.*

#### **Instructions to participant laboratories**

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

- Three coated specimens ( $\varnothing$  9,52 x 55,5 mm) are supplied to each participant – 3 results must be provided.  
If one result is missing, your test will be considered as an outlier. A RCA shall be completed.
- No additional machining is required.

#### **Definition of the test specimens :**



- The tests are to be performed in accordance with the **EN 2832-93** or **ASTM F519-18** and the below requirements and test conditions:

Test duration	<b>150 hours sustained load or until fracture</b>
Temperature (°C)	<b>Room Temperature</b>
Static Tensile Load	<b>30 kN or 6744 lbs</b>

It is expected that some samples may break.

The tests shall be performed respecting the following conditions:

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

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<div>ptp.</div>		
<div>Kit 3-3 PTP Metallic</div>		

4. The following information is to be reported:

Characteristic	Unit	Significant digits	Mandatory / Not mandatory	Evaluated Yes/no
Specimen ID	N/A	N/A	Mandatory	No
Break / No break	N/A	N/A	Mandatory	<b>Yes</b>
Test duration (if a specimen breaks)	hours	X,XX	Not mandatory	For information only

All evaluated characteristics will be compared to expected results.

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>December 31st 2022</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
19/08/2022	1	Document creation