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CTOD 2021		

Please comply with the HSE policy of your laboratory for each test performed.

Instructions to participant laboratories

Please read these instructions carefully BEFORE starting the tests.

Number of sample by operator	OP1 TM1	Additional OP	Additional TM
	3	1	1
Specimen dimension	30x60x360mm		
Material	Low alloy Steel bar		
Machining	Yes, following your own procedure and with requirements of the standard (straight notch)		
	B x 2B specimen 25mm(B) by 50mm(W) and 240mm long		
Standards	BS 7448-1 (1991)	ISO 12135 (2016)	
Testing conditions	-20°C		
Parameters	CTOD value and failure mode validity checks		

1. The Tensile and the Yield Strength shall be taken as follows:

- UTS: 554 MPa;
- YS: 398 MPa (0,2% offset)

Note: It is important that OP1 and Additional OP's carry out the tests, measurements and analysis of results for their specimens. It is not mandatory that the same operator performs the pre-cracking but that operator should be identified.

In addition to carrying out the analysis on their own samples OP1 and the additional OP's should carry out the measurements and analysis of the specimens performed by the other operators.

If there are operators who are only approved for measurement and analysis they should also be included in this program by carrying out the measurements and analysis of the results for all the specimens tested.

2. The tests shall be performed respecting the following conditions:


OP 1 is to be the **most experienced** operator currently conducting tests on a regular basis and shall perform tests on most utilised test machine (TM 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 if applicable)

The results obtained **on all ordered specimens shall be supplied**

3. The following characteristics are to be reported:

Characteristics	Units	Evaluated	Comments
Ambient temperature	°C	N	
Test temperature	°C	N	
Validity checks and graphical details	N/A	N	as defined within the test standards
CTOD – BS7448 Pt1	mm	Y	to nearest 2 decimal places
CTOD – ISO12135	mm	Y	to nearest 2 decimal places
Type	N/A	N	ΔC , ΔU , ΔM

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

4. The following characteristics are to be reported:

Characteristics	Units	Evaluated	Comments
Standard Report	N/a	N	
Test Graphs (if not included above)	N/a	N	
Fracture Face Photos (if not included above)	N/a	N	
Specify Analysis Software and Revision Copy of analysis spreadsheet or detailed analysis output	N/a	N	
Specify Fracture Face Measurement Method / Software Detailed individual fracture face measurements	N/a	N	

5. Testing may commence **as soon as test specimens are received**. Please contact the following person for the submission of your results or for any technical or administrative query.

Submission on	PTP website https://ptpscheme.com
Admin support : PTP team	info@ptpscheme.com

REVISION HISTORY

Issue Date	Issue N°	Changes
21/04/2021	1	Document creation
21/01/2022	2	Typing error correction for Op and TM number of sample 1 instead of 3