



TECHNICAL STANDARD INSTRUCTION FOR TENSILE TESTING OF ROUND SPECIMEN

A Proficiency Testing Program

- A.1 Program Name: Proficiency Testing Scheme Tensile test at Room Temperature
- A.2 Program code No Mech. 1
- A.3 Material Alloy steel
- A.4 Test Method ASTM A370 or ASTM E8 or ISO6892-1 or IS1608
- A.5 Lab Code
- A.6 Sample code
- A.7 Program starting date
- A.8 Program closing date
- A.9 Last date of result submission
- A.10 Final result reporting date

B Sample Description

B.1 Sample marked 1 A standard machined round tensile specimen, dimension as per ASTM A370 or ASTM E8, $\Phi 12.5 \pm 0.2$ mm, parallel length of 65mm to accommodate gauge length of 4D or 50 ± 0.1 mm. Participant is to be reported all tensile properties as per ASTM A370 or ASTM E8

B.2 Sample marked 2 A standard machined round tensile specimen, dimension as per IS6892-1 or IS1608, $\Phi 10.0 \pm 0.03$ mm, parallel length of 65mm to accommodate gauge length of 5D or 50 ± 0.1 mm. Participant is to be reported all tensile properties as per IS6892-1 or IS1608,

C Test Requirement

C.1 Participant is required to maintain stressing rate between 6 and 10MPa/s during determination of 0.2% offset yield or 0.2% Proof stress. The straining rate of around 0.05mm/mm/min or maximum 0.008/second is required to be maintained for determination of ultimate tensile strength, % elongation and % reduction of area.

C.2 Two separate reports are to be submitted for issuing two separate proficiency test performance

C.3 The conversion of percentage elongation from 4D to 5D or 5D to 4D is not permitted

D Expected range

D.1 The tensile test results are to be reported according to the SI units employing the speed of testing if it is recorded. The expected tensile properties are mentioned below:

PT program	Test method	Expected tensile properties	Speed of testing, preferable
MECH/ 1	IS1608,ISO 6892-1 ASTM A370, ASTM E8	0.2% Proof or 0.2% Offset Yield, maximum 950MPa,	Stress control $>6\text{MPa/s} < 10$
		Tensile strength maximum 1100MPa,	Strain control 0.05mm/mm/min or $< 0.008/\text{s}$
		Elongation on 4D or 5D ; $< 25\%$, %Reduction area; $< 70\%$	As above



DEEP METALLURGICAL SERVICES

Approved Proficiency Testing Provider (Chemical & Mechanical) by NABL



20, New Modella Indl. Estate, Padwal Nagar, Wagle Indl. Estate, Thane - 400 604. Maharashtra, India. Tel.: (022) 2583 1530, 2081 6664
2580 6688. Mob.: 9892216539 | 8928368028 | 9920044840 E-mail : deep.ptp2018@gmail.com / mech@deep-ntp.in Web : www.deepmetlab.com

ISO 17043 - 10, PC - 1045

TECHNICAL STANDARD INSTRUCTION FOR TENSILE TESTING OF ROUND SPECIMEN

E Competency

- E.1 Competent person should carry out the test and evaluate the result as routine test.
- E.2 The participant is required to submit the report for each parameter as per result reporting Format with precision as mentioned
- E.3 All result will be analyzed based on Robust Algorithm A and Z score according to ISO13528-15.
- E.4 Final report includes all clauses of 4.8.2 of ISO17043-2010
- E.5 In case of loss or deterioration of PTP Specimen, please feel free to contact PT provider for replacement.
- E.6 In case of exclusion of a PT scheme by the participant side, the participant must inform PT provider and sample must be sent back.
- E.7 Collusion and falsification of your PT result are totally forbidden. In case of suspicion of collusion or falsification, the PT Provider reserves the right to exclude the participants.

PT Co-Coordinator,

Mr. K.K. Karmakar, Deep Metallurgical Services

Mobile; 9892216539, Email: mech@deep-ntp.in & deep.ptp2018@gmail.com



DEEP METALLURGICAL SERVICES

Approved Proficiency Testing Provider (Chemical & Mechanical) by NABL



20, New Modella Indl. Estate, Padwal Nagar, Wagle Indl. Estate, Thane - 400 604. Maharashtra, India. Tel.: (022) 2583 1530, 2081 6664 2580 6688. Mob.: 9892216539 | 8928368028 | 9920044840 E-mail : deep.ptp2018@gmail.com / mech@deep-tp.in Web : www.deepmetlab.com

ISO 17043 - 10, PC - 1045

TEST RESULT FORMAT FOR TENSILE TESTING OF ROUND SPECIMEN

F Proficiency Testing Program

- F.1 Program Name: Proficiency Testing Scheme Tensile test at Room Temperature
 F.2 Program code No Mech. 1 F.3 Lab code:
 F.4 Test Method ASTM A370 or ASTM E8
 F.5 Sample code F.6 Program closing date:
 F.7 Last date of result submission: F.8 Date of result submission:

F.9 Reporting format for Specimen No 1 ASTM A370 or ASTM E8

Parameter	Unit- Sample no 1	Precision	Reporting result
Material	Alloy steel	N/A	
Method	ASTM A370 or ASTM E8	N/A	
Temperature	°C	XX	
Specimen diameter	mm	XX.XX	
Gauge length , 4D	mm	XX.XX	
Speed of testing during yield stress	MPa/s	N/A	
0.2% offset Yield stress	MPa	XXX.XX	
Speed of testing after yield stress	0.05 mm/mm/min or <0.008/s	NA	
Ultimate tensile strength	MPa	XXX.XX	
Elongation, 4D	%	XX.XX	
Reduction of area, 4D	%	XX.XX	

Method & Equipment used:

NABL/ISO Certificate No.:

Tested by organization

Name:

Designation

Please send the complete Test Result Form (Soft & hard copy) to PTP Coordinator, Deep Metallurgical Services, 20, New Modella Industrial Estate, Padwal Nagar, Wagle Estate, Thane, Maharashtra, India, Pin-400604, Mobile- 9892216539, Email: mech@deep-tp.in, deep.ptp2018@gmail.com



DEEP METALLURGICAL SERVICES

Approved Proficiency Testing Provider (Chemical & Mechanical) by NABL



20, New Modella Indl. Estate, Padwal Nagar, Wagle Indl. Estate, Thane - 400 604. Maharashtra, India. Tel.: (022) 2583 1530, 2081 6664 2580 6688. Mob.: 9892216539 | 8928368028 | 9920044840 E-mail : deep.ptp2018@gmail.com / mech@deep-tp.in Web : www.deepmetlab.com

ISO 17043 - 10, PC - 1045

TEST RESULT FORMAT FOR TENSILE TESTING OF ROUND SPECIMEN

G Proficiency Testing Program

- G.1 Program Name: Proficiency Testing Scheme Tensile test at Room Temperature
 G.2 Program code No Mech.1 G.3 Lab code
 G.4 Test Method IS6892-1 or IS1608
 G.5 Sample code G.6 Program closing date
 G.7 Last date of result submission G.8 Date of result submission

G.9 Reporting format for Specimen No2 IS6892-1 or IS1608

Parameter	Unit sample no 2	Precision	Reporting result
Material	Alloy steel	N/A	
Method	IS6892-1 or IS1608	N/A	
Temperature	°C	XX	
Specimen diameter	mm	XX.XX	
Gauge length , 4D	mm	XX.XX	
Speed of testing during yield stress	MPa/s	N/A	
0.2% offset Yield stress	MPa	XXX.X	
Speed of testing after yield stress	0.05 mm/mm/min or <0.008/s	NA	
Ultimate tensile strength	MPa	XXXX.X	
Elongation, 4D	%	XX.XX	
Reduction of area, 4D	%	XX.XX	

Method & Equipment used:

NABL/ISO Certificate No.

Tested by organization

Name:

Designation

Please send the complete Test Result Form (Soft & hard copy) to PTP Coordinator, Deep Metallurgical Services, 20, New Modella Industrial Estate, Padwal Nagar, Wagle Estate, Thane, Maharashtra, India, Pin-400604, Mobile- 9892216539, Email: mech@deep-tp.in, deep.ptp2018@gmail.com