



# 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 CHEMICAL ANALYSIS OF A COPPER ALLOY, NICKEL ALUMINUM BRONZE (NAB) BY OPTICAL EMISSION SPECTROSCOPY (OES)

### A Proficiency Testing Program

- A.1 Program Name: Chemical Composition of copper alloy equivalent nickel aluminum bronze(NAB) by OES
- A.2 Program Code No.: Chem. 7
- A.3 Material: Equivalent UNSC 95400
- A.4 Condition: Cast and annealed
- A.5 Test Method: BS EN 15079 or any validated method
- A.6 Program starting date
- A.7 Program closing date
- A.8 Last date of result submission
- A.9 Final result reporting date

### B Sample Description

- B.1 **Test Specimen:** One cylindrical specimen drawn from a machined cast and annealed bar with Surface finish of about 80grit is provided. The nominal dimension of the specimen is 30Φ mm and thickness 12mm. The specimen bears a unique Identification number that has to be mentioned in the test result reporting format.

### C Test Requirement:

- C.1 Calibrated Optical Emission Spectrometer (OES) should be used for analysis.
- C.2 Three decimal accuracy of result for all elements must be provided as per reporting format

### D Test procedure: The following parameters have to be reported in the test result format.

- D.1 Test Method & equipment detail
- D.2 Certified or standard reference material used & traceability of used SRM/CRM

### E Expected range:

PT program	Test method	Expected element
Chem. 7	Spark OES	Al<11%,Cu>80%,Fe>3.0%, Ni<4.5%,Mn<0.1%,Sn<0.5%,Si<0.5%,Sb<0.5%, Pb<0.5%,Zn<0.5%,P<0.5%

### Competency

- F.1 Competent person should carry out the test and evaluate the result as routine test
- F.2 The participant is required to report result with three decimals accuracy
- F.3 PT results will be analyzed based on Robust Algorithm A and Z score according to ISO13528-15.
- F.4 Final report includes all clauses of 4.8.2 of ISO17043-2010
- F.5 In case of loss or deterioration of PTP Specimen, please feel free to contact PT provider
- F.6 In case of exclusion of a PT schemes, the participant must return sample
- F.7 Collusion and falsification of your PTP result are totally forbidden. In case of suspicion of collusion or falsification, the PT Provider reserves the right to exclude the participants.

### PT Coordinator,

K.K. Karmakar  
Deep Metallurgical Services, Email: deep.ptp2018@gmail.com



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## TECHNICAL STANDARD INSTRUCTION FOR CHEMICAL ANALYSIS OF A COPPER ALLOY, NICKEL ALUMINUM BRONZE (NAB) BY OPTICAL EMISSION SPECTROSCOPY (OES)

### TEST RESULT REPORT FORMAT

#### A Proficiency Testing Program

- A.1 Program Name: Chemical Composition of copper alloy equivalent nickel aluminum bronze (NAB) by OES
- A.2 Program Code No Chem. 7
- A.3 Material UNSC 95400
- A.4 Condition Cast and annealed
- A.5 Test Method BS EN 15079 or any validated method
- A.6 Lab Code
- A.7 Sample Code
- A.8 Program starting date
- A.9 Program closing date
- A.10 Last date of result submission
- A.11 Final result reporting date

Sr. No.	Element	Result in %(Up to 3 decimal)	Method
1	Aluminium (Al)		
2	Iron (Fe)		
3	Nickel (Ni)		
4	Manganese (Mn)		
5	Tin (Sn)		
6	Silicon(Si)		
7	Antimony (Sb)		
8	Lead (Pb)		
9	Zinc(Zn)		
10	Phosphorus (P)		
11	Copper (Cu)		

Equipment details

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