



**National Council for Cement and Building Materials**  
**Interlaboratory Services**  
(India's First NABL Accredited PT Services Provider)



Interlaboratory Services  
NABL Accredited Laboratories  
Certificate No.: PC-1007

**NCB PROFICIENCY TESTING SCHEME ON BURNT CLAY BUILDING BRICK**  
**(MECHANICAL PARAMETERS): ILS/PT/47**

**PROTOCOL**

**1.0 PROFILE**

**1.1 Background**

NCB is the apex body providing R&D and technical services in cement and allied building materials. In 2013, Interlaboratory Services (ILS) of NCB was granted NABL accreditation as per ISO 17043:2010 for providing PT services on cement and fly ash. The present scope of accreditation in mechanical field covers: cement; fly ash; aggregate; mortar/concrete; tile (ceramic); burnt clay building brick; steel bar.

**1.2 PT Schemes on Brick**

ILS now is launching PT scheme on mechanical testing of building brick. The study is being coordinated by Sh. Abhishek Agnihotri. The programme envisages testing of two samples of building brick as per Indian standard methods of testing in Mechanical field. Around 30-35 laboratories are expected to participate. The registration for participation would be done on first-come-first-serve basis. The scheme will be implemented as per ISO 17043:2010. The channels of communication will remain open throughout the scheme implementation period with all the participants.

**1.3 Salient Features of the New Schemes**

Each participating laboratory would be provided two samples for testing. Salient features of the scheme are as under:

- Sourcing of samples from brick kilns
- Sampling and selection of test specimen for PT as per IS 1077:1992
- Conformance check of sample lots to IS 3495 (Part 1 & 2):1992
- Material homogenization and sample preparation
- Testing for homogeneity and statistical check of homogeneity
- Safe delivery of samples to participating laboratories
- Data analysis as per ISO 17043:2010 and ISO 13528:2015(E)
- Feedback of performance to participating laboratories
- Data confidentiality

All the PT activities will be coordinated by ILS. Material testing for initial checking, material homogenization and testing for homogeneity will be subcontracted by ILS to other laboratories of NCB. Activities like statistical check of homogeneity, compilation and analysis of results and report preparation will not be subcontracted. Complete confidentiality will be observed in the implementation of the scheme.

## 2.0 TECHNICAL DETAILS

### 2.1 Material Selection, Homogenization and Preparation of PT Items

The samples for preparing PT items will be acquired from a suitable source. The quality of the bricks will be checked for suitability and conformance to IS specification. The material will be sampled as per IS 1077:1992 and evaluated statistically as per IS 13528:2015(E), for homogeneity for preparation of PT items. The prepared & packed PT items/samples will be checked for stability also. Stability check will be conducted around the actual date of testing.

### 2.2 Sample Packaging and Delivery

The PT items (test samples) would be packed properly and safely for dispatch to the participants. Each participating laboratory would be provided two test samples, with each sample comprising five specimen for each test. Necessary instructions and data reporting sheets will also be provided. Replacement would be provided in case of damage or loss during transit.

### 2.3 Sample Testing

The scheme covers testing of homogenized samples provided by ILS as per IS specification, for the following test parameters at participants' laboratories.

Parameter	Method of Test
Water absorption	IS 3495 (Part 2): 1992
Compressive strength	IS 3495 (Part 1): 1992

The laboratories are required to ensure availability of calibrated equipment, maintain required environmental conditions, and meet all IS requirements during testing.

### 2.4 Reporting of Results

The participating laboratories will be required to conduct the tests and report individual result for each test for each specimen, to the accuracy mentioned in the results reporting sheet; deviation, if any, would have to be reported. Test results would have to be sent to the coordinator through e-mail for quick transmission, followed by hard copy.

### 2.5 Analysis of Results

Received test results will be evaluated as per ISO 17043:2010 and ISO 13528:2015(E). The test results would be evaluated for Z-score ( $Z_A$  and  $Z_B$ ) for each parameter of sample 'A' and 'B'. The laboratory's performance would be indicated in terms of Z-score.

### 2.6 Statement of Confidentiality

All laboratories would be given code number, upon receipt of test results. Confidentiality of received data, analysis and feedback would be ensured. Identity (list) of participants will not be disclosed. However, it may be disclosed to NABL, if required.

### 2.7 Report

Report containing details of the scheme, evaluation, laboratory performance sheet would be prepared and provided to the participating laboratories. Copy of the report may be given to NABL, if required.

### 2.8 Feedback

All the participating laboratories will be individually conveyed the status of their performance, with remarks.

### **3.0 REGISTRATION FOR PARTICIPATION**

The laboratories having facilities for mechanical testing of building bricks can register by sending filled up Form 1 (enclosed) to NCB, for participation in the scheme.

### **4.0 TIME LINE**

The last date for registration in the scheme is **31<sup>st</sup> January, 2019**. The test samples would be dispatched to participants by **15<sup>th</sup> February, 2019**. The study is scheduled to be completed by **31<sup>st</sup> March, 2019**.

### **5.0 PARTICIPATION FEE**

Rs. 26,000.00 (Twenty Six Thousand) plus GST @ 18%.

### **6.0 POST-PROGRAMME SUPPORT**

Laboratories willing to take assistance for improving their performance in the aftermath of the programme would receive support at the cost agreed upon.

Dr. S.K. Breja  
(Joint Director)

Date: 01.10.2018

Amended Date: 01 (18.01.2019)

### **Contact Details of PT Coordinator:**

**Abhishek Agnihotri**    **Assistant Manager**  
**Centre for Quality Management,**  
**Standards and Calibration Services**  
**National Council for Cement and Building**  
**Materials**  
**34 Km Stone, Delhi-Mathura Road (NH-2)**  
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**Phone No: 0129-4192239/305**  
**E-mail:        ncb.cqc@gmail.com**  
**Fax:            0129-2242100/2246175**



**National Council for Cement and Building Materials  
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**CONSENT FORM FOR PARTICIPATION IN PT SCHEME**

**TITLE: NCB PROFICIENCY TESTING SCHEME ON BURNT CLAY  
BUILDING BRICK (MECHANICAL PARAMETERS): ILS/PT/47**

Name of the Laboratory.....

Address: .....

.....

Pin code: .....

Telephone: ..... e-mail: .....

Name of the Contact Person: .....

Designation: ..... e-mail: .....

Telephone: ..... Mobile: .....

We are interested to participate in the above scheme.

The participation fee alongwith applicable taxes for the scheme is being made as per the following:

**Payment details:** NEFT\*/SB Collect\*\* ----- dated -----

for **Rs.** ----- GST No. -----

Date:

Authorized Signatory

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Participation Fee : Rs. 26,000.00

GST @ 18% : Rs.

**Total** : **Rs.**

PAN No.: AAATN2477N; GST No. 06AAATN2477N1Z6

\***NEFT:** Saving Bank Account No. 10383962218, State Bank of India, Address – Cement Research Institute of India, Sector-4, Faridabad 121004 (Haryana), India, Branch Code-03794, MICR Code – 110002194 and IFSC Code SBIN0003794.

\*\***SB Collect:** [www.onlinesbi.com](http://www.onlinesbi.com) → SBI collect → Proceed → State of corporate/Institution: (All India) → Type of corporate/Institution: (Govt. Department) → National Council for Cement and Building Materials → Proficiency Testing → Submit.

Please forward scanned copy of payment details separately

Form 1 Date of Issue: 01.10.2018 Revision: 00
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