



**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 FINE AGGREGATE**  
**(MECHANICAL PARAMETERS): ILS/PT/41**

**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 New Launch**

ILS is now launching PT scheme on mechanical testing of fine aggregate (ILS/PT/41). The study is being coordinated by Dr. S.K. Breja. The programme envisages testing of two homogenized samples of fine aggregate as per Indian standard methods of testing. Around 30-35 laboratories are expected to participate. The registration for participation would be done on first-come-first-served 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**

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

- Simultaneous participation
- Material characterization
- 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. Activities like material characterization, homogenization and testing for checking homogeneity and stability 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 material for preparing PT items will be acquired and collected from a suitable source. The material will be homogenized and evaluated statistically for homogeneity. The material will also be checked for stability. Stability check will be conducted around the actual date of testing.

### 2.2 Sample Packaging and Delivery

The prepared PT items/test samples would be taken from the homogenized lot(s) and packed properly and safely, for dispatch to the participants. Each participating laboratory would be provided two test samples. 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 two homogenized samples provided by ILS as per IS specification, for the following test parameters at participants' laboratories.

Parameter	IS Code
Sieve analysis (ROS 300 $\mu$ m)	2386 (Part I): 1963
Apparent Specific gravity	2386 (Part III): 1963
Water absorption	2386 (Part III): 1963
Bulk density (loose)	2386 (Part III): 1963

The laboratories are required to ensure availability of calibrated equipment, glassware and maintain required environmental conditions, and meet all IS requirements during testing. Conformance to the respective test procedures will have to be ensured.

### 2.4 Reporting of Results

The participating laboratories will be required to conduct single test and report result for each test for each sample, to the accuracy mentioned in the results reporting sheet; deviation, if any, will have to be reported in the result reporting sheet. 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). Z-score of laboratory performance for each test parameter will be calculated. 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 conveyed the status of their performance, with remarks.

## **3.0 REGISTRATION FOR PARTICIPATION**

The laboratories having facilities for testing of aggregate can register by sending filled up Form 1 (enclosed) to PT Coordinator, for participation.

## **4.0 TIME LINE**

The last date for registration in the scheme is **10<sup>th</sup> July, 2018**. The test samples would be dispatched to participants by **15<sup>th</sup> July, 2018**. The study is scheduled to be completed by **30<sup>th</sup> September, 2018**.

## **5.0 PARTICIPATION FEE**

Rs. 20,000.00 (Twenty 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  
(PT Coordinator)

Date: 07.05.2018

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

**Dr. S. K Breja**

**Joint Director & Head  
Centre for Quality Management,  
Standards and Calibration Services  
National Council for Cement and Building  
Materials  
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**National Council for Cement and Building Materials  
Interlaboratory Services**

**CONSENT FORM FOR PARTICIPATION IN PT SCHEME**

**TITLE: NCB PROFICIENCY TESTING SCHEME ON FINE  
AGGREGATE (MECHANICAL PARAMETERS): ILS/PT/41**

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:** RTGS\*/SBI Collect\*\* ----- dated -----

for **Rs.** .....

Date:

Authorized Signatory

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Participation Fee : Rs. 20,000.00

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.