

**INSTITUTE OF ACOUSTICS TONGJI UNIVERSITY**

**TEST REPORT**

Report No. A15-16-1  
(Total 3 pages of this report)

Test Specimen: Fiberglass Ceiling Tiles-700-Loke 40

(“北洋”<sup>TM</sup> “ceillex”<sup>TM</sup>)

Test Content: Sound Absorption Coefficient

Client: Changzhou Beiyang Building Material CO., LTD.

Buyer: PROSO AS LTD.

Test Organization: Institute of Acoustics Tongji University

Date of Report: November 30, 2015



## Notes

1. Test report is invalid without the stamp of test organization.
2. Test report is invalid without the signature of tester, verifier.
3. Test report is invalid if any altered.
4. The test results presented in this report relate only to the item(s) tested.
5. Any dissenting opinions on this test report, Contact test organization within 15 days.

**Address:** 1239 Siping Road, Shanghai China

**Tel:** (021)65982301、65982312(+Fax)

**Post Code:** 200092

## Report on Sound Absorption Test in a Reverberation Room

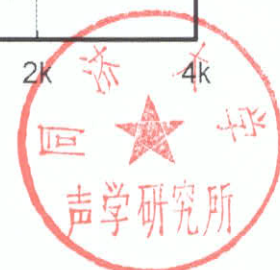
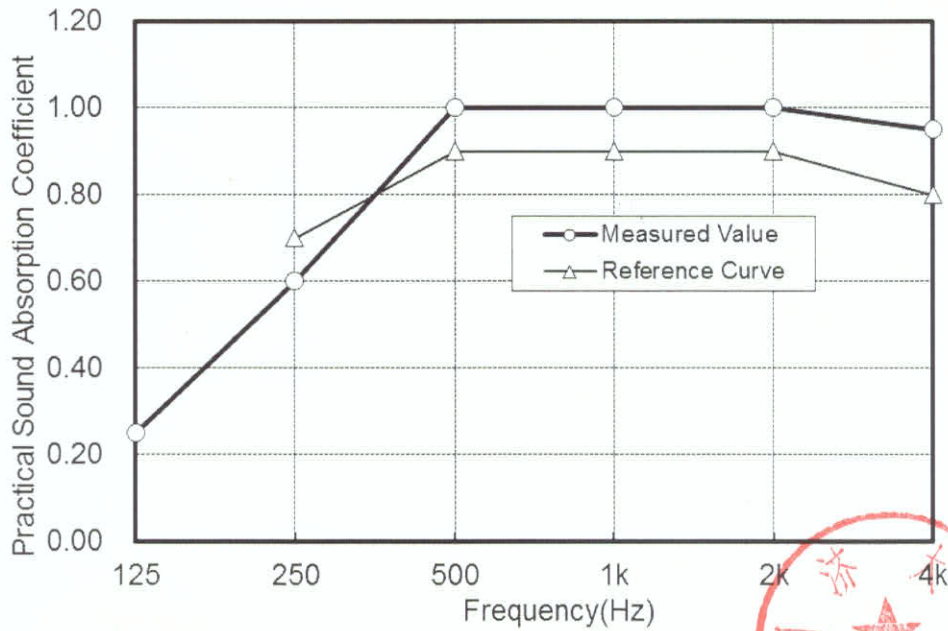
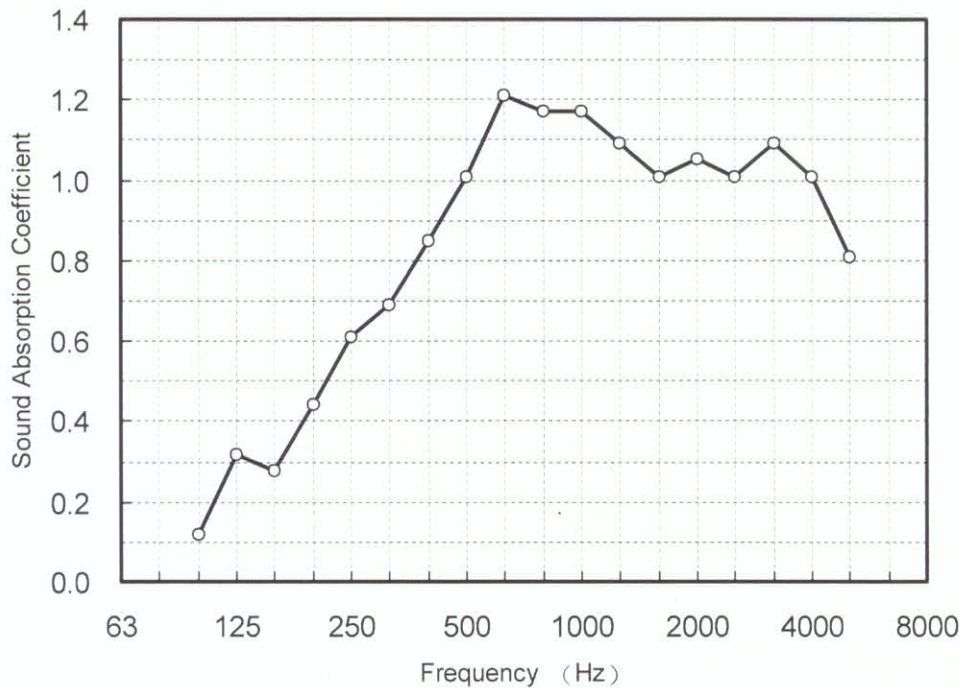
1. **Client:** Changzhou Beiyang Building Material CO.,LTD
2. **Buyer:** PROSO AS LTD.
3. **Specimen:** Fiberglass Ceiling Tiles-700-Loke 40 (“北洋”™ “ceillex”™)
4. **Specimen Description:** 30 panels with dimension of 600mm long by 600mm wide and  
40mm thick. cover : 700. Volume density :100g/m<sup>3</sup>.
5. **Mounting method:** 0 mm air space behind
6. **Specimen Area:** 3.6m×3.0m =10.8m<sup>2</sup>
7. **Test data:** November 27 ,2015
8. **Test Method:** Conformed explicitly with the requirements of ISO 354:2003: Measurement of  
sound absorption in a reverberation room
9. **Reverberation Room:** Dimension: 8.6m(L)×6.8m(W)×5.4m(H);  
Volume: 268 m<sup>3</sup>; Floor Area: 54 m<sup>2</sup>.
10. **Test Instruments:** Building Acoustics Analyzer B&K4417, Microphone B&K4166.
11. **Test Environment:** Temperature 13.5℃      Relative Humidity 34 %



## 12. Test Results:

Frequency (Hz)	Absorption Coefficient $\alpha_s$	Practical Absorption Coefficient $\alpha_p$	Reference Absorption Coefficient
100	0.12	0.25	
125	0.32		
160	0.28		
200	0.44	0.60	0.70
250	0.61		
315	0.69		
400	0.85	1.00	0.90
500	1.01		
630	1.21		
800	1.17	1.00	0.90
1K	1.17		
1250	1.09		
1600	1.01	1.00	0.90
2K	1.05		
2500	1.01		
3150	1.09	0.95	0.80
4K	1.01		
5000	0.81		





**13. Conclusion:**

Noise Reduction Coefficient: **NRC = 0.90**

In accordance with GB/T 16731-1997, Sound absorption class is I.

In accordance with EN ISO 11654:1997, Weighted Absorption Coefficient.  $\alpha_w=0.90$

Sound absorption class is A.

**Tested by:** Fangying ZHU, Huiming QIAN

**Reviewed by:** Guorong JIANG