

**INSTITUTE OF ACOUSTICS TONGJI UNIVERSITY**

**TEST REPORT**

Report No. A12-10-2  
(Total 3 pages of this report)

Test Specimen: Fiberglass Ceiling Tiles-700-Loke  
(“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: July 12, 2012



## 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.

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## Report on Sound Absorption Test in a Reverberation Room

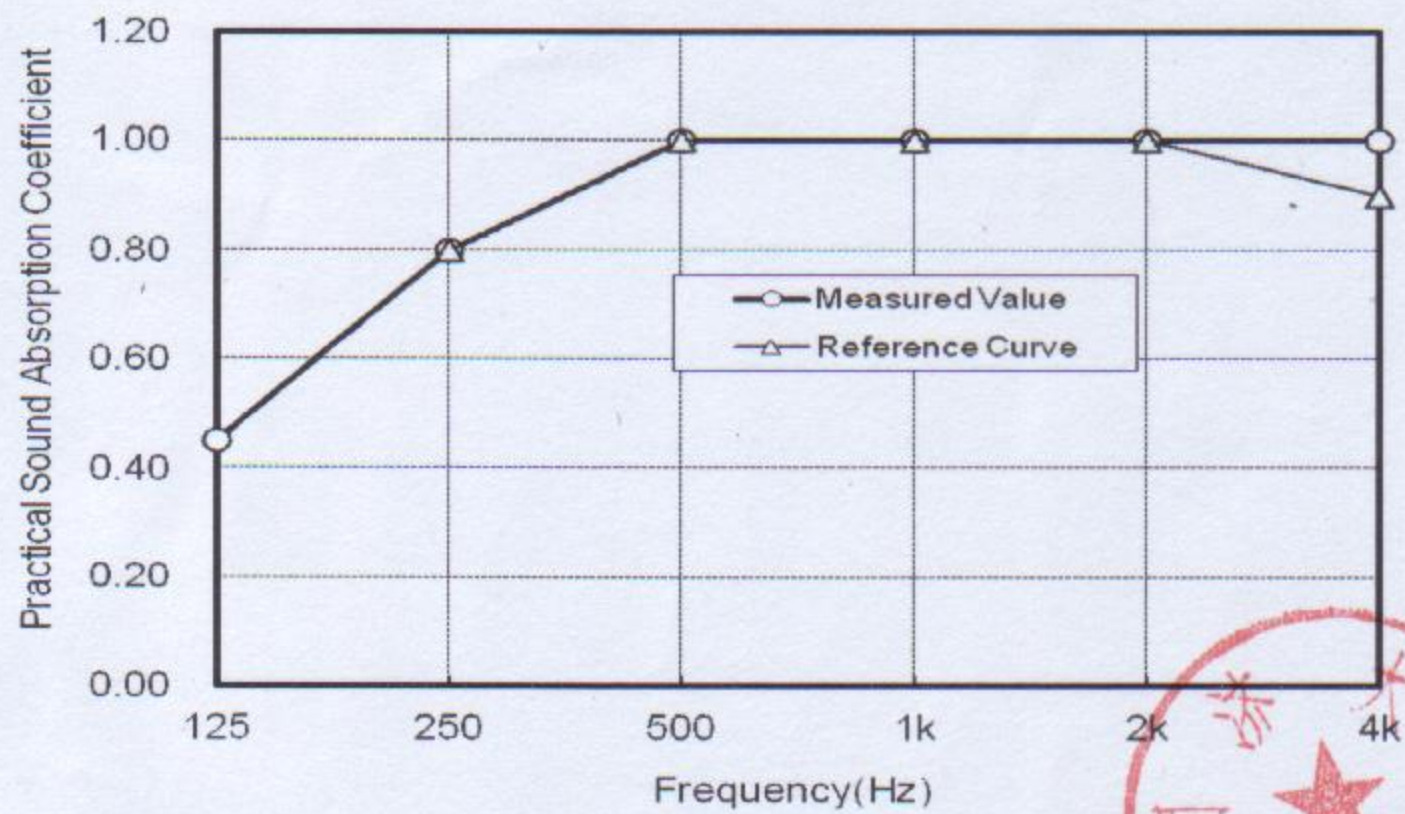
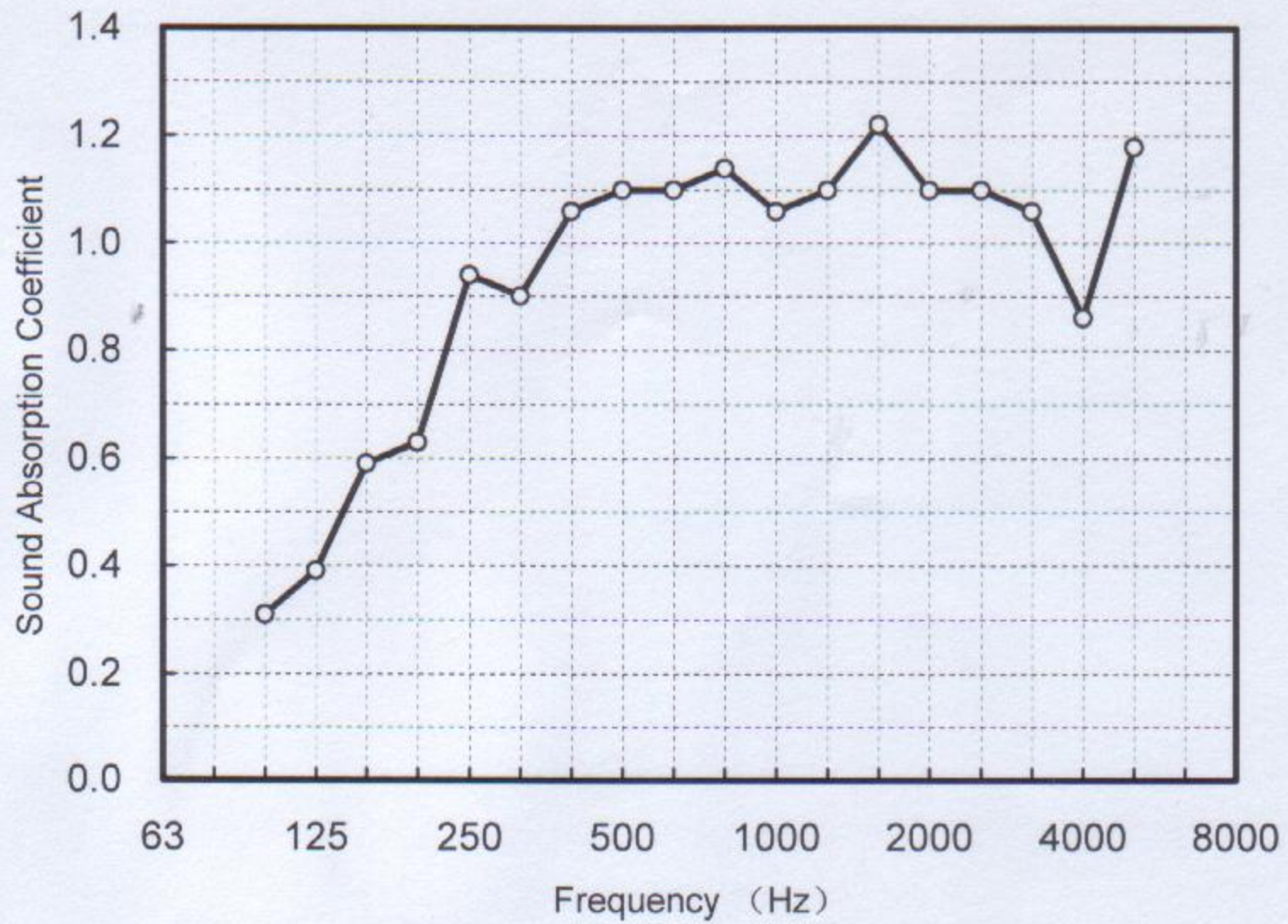
1. **Client:** Changzhou Beiyang Building Material CO.,LTD
2. **Buyer:** PROSO AS LTD.
3. **Specimen:** Fiberglass Ceiling Tiles-700-Loke (“北洋”™ “ceillex”™)
4. **Specimen Description:** 30 panels with dimension of 600mm long by 600mm wide and 40mm thick. cover : 700. Volume density :100g/m<sup>3</sup>.
5. **Mounting method:** 50mm air space behind
6. **Specimen Area:** 3.6m×3.0m =10.8m<sup>2</sup>
7. **Test data:** July 10 ,2012
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 29℃      Relative Humidity 87 %



## 12. Test Results:

Frequency (Hz)	Absorption Coefficient $\alpha_s$	Practical Absorption Coefficient $\alpha_p$	Reference Absorption Coefficient
100	0.31	0.45	
125	0.39		
160	0.59		
200	0.63	0.80	0.80
250	0.94		
315	0.90		
400	1.06	1.00	1.00
500	1.10		
630	1.10		
800	1.14	1.00	1.00
1K	1.06		
1250	1.10		
1600	1.22	1.00	1.00
2K	1.10		
2500	1.10		
3150	1.06	1.00	0.90
4K	0.86		
5000	1.18		





**13. Conclusion:**

Noise Reduction Coefficient:  $NRC = 1.05$

(Average Absorption Coefficient of 250Hz、500Hz、1000Hz and 2000Hz)

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

In accordance with EN ISO 11654:1997, Weighted Absorption Coefficient.  $\alpha_w = 1.00$

Sound absorption class is A.

Tested by: Fangying ZHU, Huiming QIAN      Reviewed by: Guorong JIANG

*Handwritten signature of Guorong JIANG*