

INSTITUTE OF ACOUSTICS TONGJI UNIVERSITY

TEST REPORT

Report No. A15-07
(Total 3 pages of this report)

Test Specimen: Fiberglass Wall Panels (“北洋”TM “ceilleX”TM)

Test Content: Sound Absorption Coefficient

Client: Changzhou Beiyang Building Material CO., LTD

Test Organization: Institute of Acoustics Tongji University

Date of Report: March 16, 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.

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Report on Sound Absorption Test in a Reverberation Room

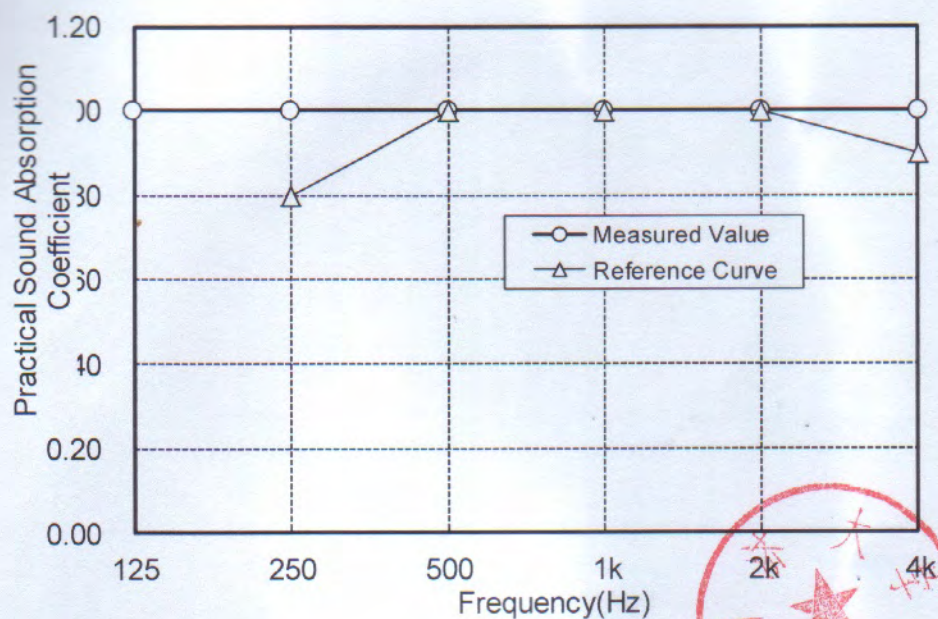
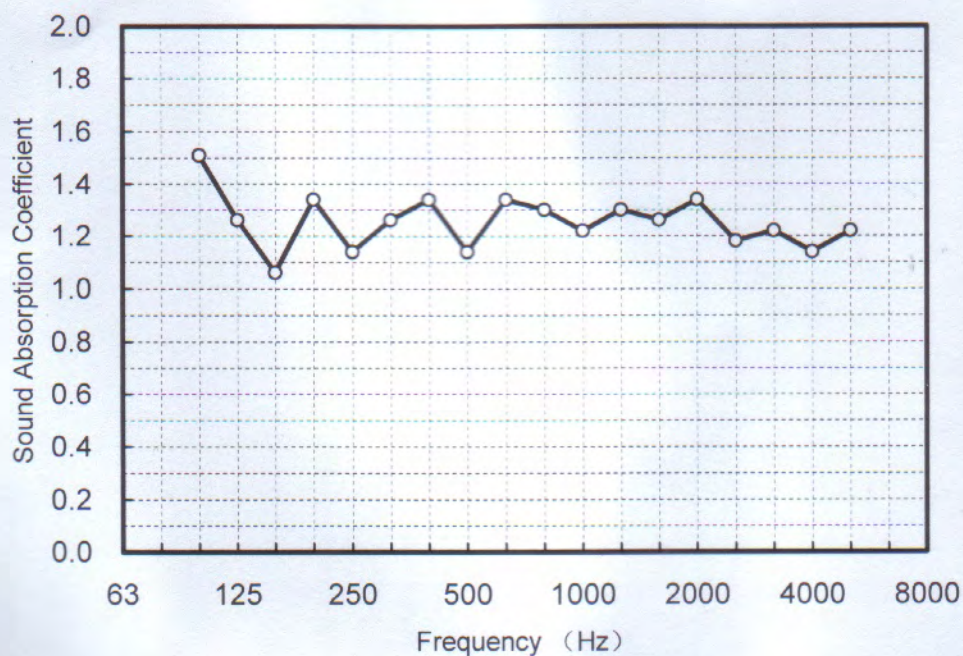
1. **Client:** Changzhou Beiyang Building Material CO.,LTD
2. **Specimen:** Fiberglass Wall Panels (“北洋”TM“ceilleX”TM)
3. **Specimen Description:** 30 panels with dimension of 600mm long by 600mm wide and
75mm thick, covered with cloth, Volume density : 100Kg/m³.
4. **Mounting method:** 200mm air space behind
5. **Specimen Area:** 3.6m×3.0m=10.8m²
6. **Test data:** March 12,2015
7. **Test Method:** Conformed explicitly with the requirements of ISO 354:2003: Measurement of
sound absorption in a reverberation room
8. **Reverberation Room:** Dimension: 8.6m(L)×6.8m(W)×5.4m(H);
Volume: 268 m³; Floor Area: 54 m².
9. **Test Instruments:** Building Acoustics Analyzer B&K4417, Microphone B&K4166.
10. **Test Environment:** Temperature 9℃ Relative Humidity 51 %



11. Test Results:

Frequency (Hz)	Absorption Coefficient α_s	Practical Absorption Coefficient α_p	Reference Absorption Coefficient
100	1.51	1.00	
125	1.26		
160	1.06		
200	1.34	1.00	0.80
250	1.14		
315	1.26		
400	1.34	1.00	1.00
500	1.14		
630	1.34		
800	1.30	1.00	1.00
1K	1.22		
1250	1.30		
1600	1.26	1.00	1.00
2K	1.34		
2500	1.18		
3150	1.22	1.00	0.90
4K	1.14		
5000	1.22		





12. Conclusion:

Noise Reduction Coefficient: $NRC = 1.0$

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