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(2020)国认监认字(047)号



中国认可
国际互认
检测
TESTING
CNAS L0846

TEST REPORT

WQ No.21060097

Product Fiberglass Acoustic Panel

Client BEIYANG BUILDING MATERIAL CO., LTD.

Test Type Entrusted Testing

Nanjing Guocai Testing Co., Ltd.

China National Fiberglass Product Quality Supervision & Testing Center

2021-07-13


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Test Report

WQ No.21060097

Page 1 of 6

Client	BEIYANG BUILDING MATERIAL CO., LTD.	Address of client	Dongqing Garden Industrial Area, Zhenglu Town, Tianning District, Changzhou, Jiangsu, China
Product	Fiberglass Acoustic Panel	Specification	Density: 100kg/m ³ , thickness: 15mm
Trade mark	ceillex	Sample sender	Zhu Haibao
Producer	BEIYANG BUILDING MATERIAL CO., LTD.	Date of production	----
Inspections required	Sound absorption coefficient, weighted sound absorption coefficient.		
Additional information	None.		
The above information is provided by the client, the center is not responsible for its truthfulness.			
Test type	Entrusted Testing	Date of sample received	2021-06-29
Sample state	Hard plate products with black textile in one face		
Sample quantity	(600×600×15) mm, 30 pieces	Testing period	2021-06-29-2021-07-13
Test standard	GB/T 20247-2006 Acoustics-Measurement of sound absorption in a reverberation room		
Testing result	The sample has been tested and the results are detailed in the annex(page2-6).  Seal for test report 2021-07-13 The test results only represent the technical properties of the samples received.		
Remark			

Approved by: 唐健 Technical Chief

Checked by: 丁晴

Compiled by: 吴仕富

Annex to Test Report

WQ No.21060097

Page 2 of 6

Test items		Test method	Test results	
Sound absorption coefficient	100 Hz	GB/T 20247-2006 (Type E, 200 mm)	0.396	Detailed in page3-6.
	125 Hz		0.443	
	160 Hz		0.461	
	200 Hz		0.558	
	250 Hz		0.799	
	315 Hz		0.985	
	400 Hz		1.010	
	500 Hz		1.039	
	630 Hz		0.971	
	800 Hz		0.907	
	1000 Hz		0.867	
	1250 Hz		0.965	
	1600 Hz		1.006	
	2000 Hz		0.980	
	2500 Hz		1.045	
	3150 Hz		1.035	
	4000 Hz		1.043	
	5000 Hz		1.079	
Noise reduction coefficient NRC			0.90	
Weighted sound absorption coefficient α_w			1.00	

Nanjing Guocai Testing Co., Ltd.
China National Fiberglass Product Quality Supervision & Testing Center
Annex to Test Report

WQ No.21060097

Page 3 of 6

Details of sound absorption test in a reverberation room

1. Test method

GB/T 20247-2006 *Acoustics—Measurement of sound absorption in a reverberation room.*

2. Test equipment

Reverberation room: volume 218 m³, area 44 m².

B&K acoustic testing system.

3. Test environment

Temperature 20°C, relative humidity 62%, speed of sound 346.45m/s.

4. Specimen and mounting

Name of the sample: fiberglass acoustic panel. The sample is hard plate products with black textile in one face.

Dimension of the sample: (600×600×15) mm, totally 30 pieces.

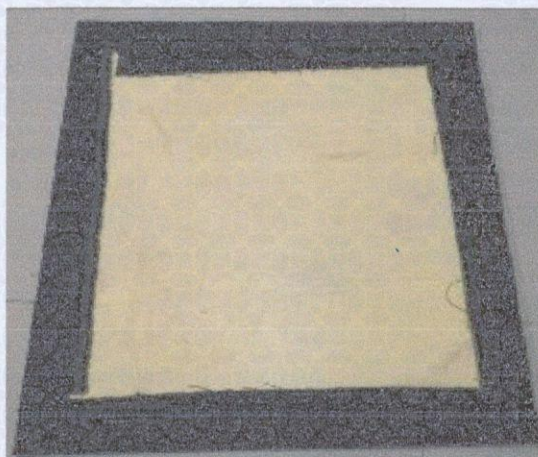
Mounting: Type E, 200 mm.

Test area: 10.46m².

The pictures of the sample and specimen after mounting are as follows.



Front



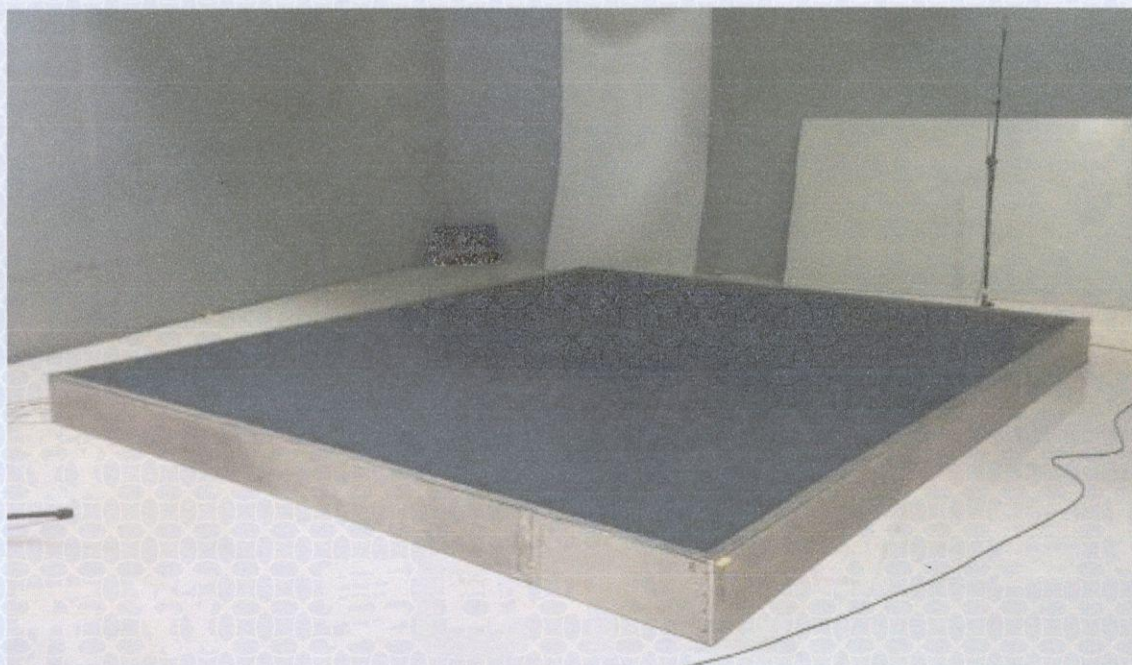
Back

The photo of the sample

Nanjing Guocai Testing Co., Ltd.
China National Fiberglass Product Quality Supervision & Testing Center
Annex to Test Report

WQ No.21060097

Page 4 of 6



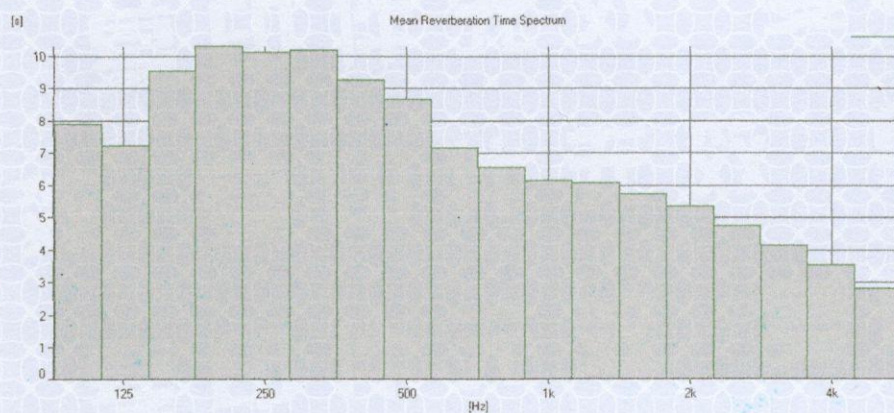
Specimen after mounting

5. Test frequency range

One-third-octave bands with the following centre frequencies (Hz): 100, 125, 160, 200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000.

6. Test result

6.1 The reverberation time of the empty reverberation room.

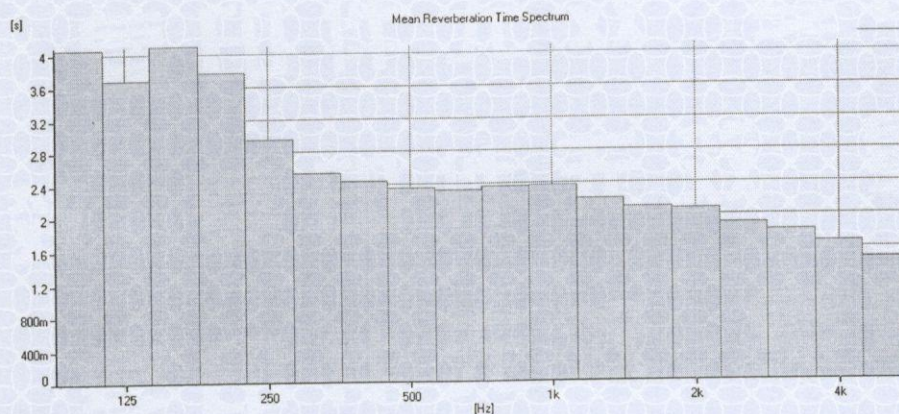


Annex to Test Report

WQ No.21060097

Page 5 of 6

6.2 The reverberation time of the reverberation room after the test specimen has been mounted.



6.3 Test results of sound absorption coefficient

Frequency (Hz)	100	125	160	200	250	315	400	500	630
Sound absorption coefficient α_s	0.396	0.443	0.461	0.558	0.799	0.985	1.010	1.039	0.971
Frequency (Hz)	800	1000	1250	1600	2000	2500	3150	4000	5000
Sound absorption coefficient α_s	0.907	0.867	0.965	1.006	0.980	1.045	1.035	1.043	1.079
Noise reduction coefficient	0.90								

6.4 Test result of weighted sound absorption coefficient α_w

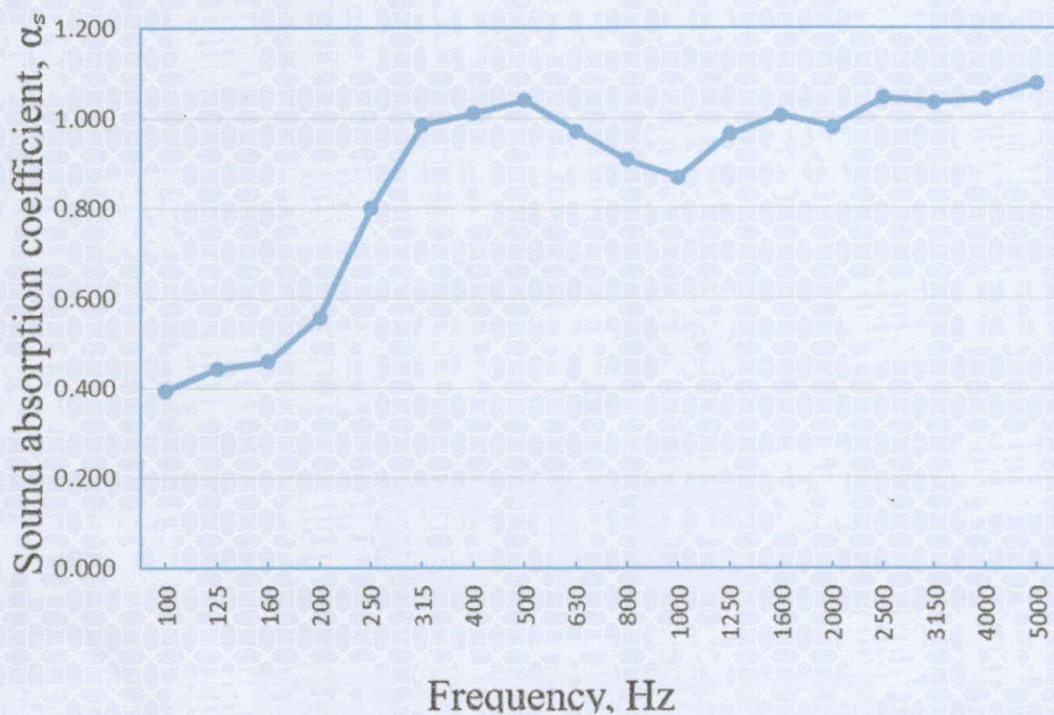
Frequency (Hz)	Reference curve	Absorber
125	—	0.45
250	0.80	0.80
500	1.00	1.00
1000	1.00	0.90
2000	1.00	1.00
4000	0.90	1.05
Weighted sound absorption coefficient α_w	1.00	

Annex to Test Report

WQ No.21060097

Page 6 of 6

6.5 Sound absorption coefficient- frequency curve



6.6 Weighted sound absorption coefficient- frequency curve

