



(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.21060096

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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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: 25mm
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	(600×600×25) 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:  Technical Chief

Checked by: 丁晴

Compiled by: 吴佳为

Annex to Test Report

Test items		Test method	Test results	
Sound absorption coefficient	100 Hz	GB/T 20247-2006 (Type E, 200 mm)	0.485	Detailed in page3-6.
	125 Hz		0.455	
	160 Hz		0.546	
	200 Hz		0.636	
	250 Hz		0.914	
	315 Hz		1.021	
	400 Hz		1.046	
	500 Hz		1.018	
	630 Hz		0.972	
	800 Hz		0.942	
	1000 Hz		0.975	
	1250 Hz		1.062	
	1600 Hz		1.056	
	2000 Hz		1.049	
	2500 Hz		1.051	
3150 Hz	1.057			
4000 Hz	1.058			
5000 Hz	1.080			
Noise reduction coefficient NRC			0.95	
Weighted sound absorption coefficient α_w			1.00	

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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 25°C, relative humidity 62%, speed of sound 346.45m/s.

4. Specimen and mounting

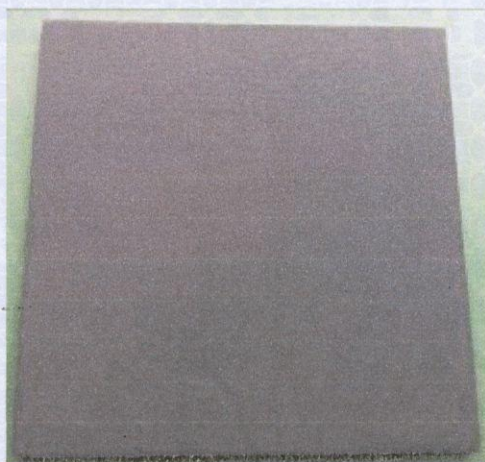
Name of the sample: fiberglass acoustic panel. The sample is hard plate products with black textile in one face

Dimension of the sample: (600×600×25) mm, totally 30 pieces.

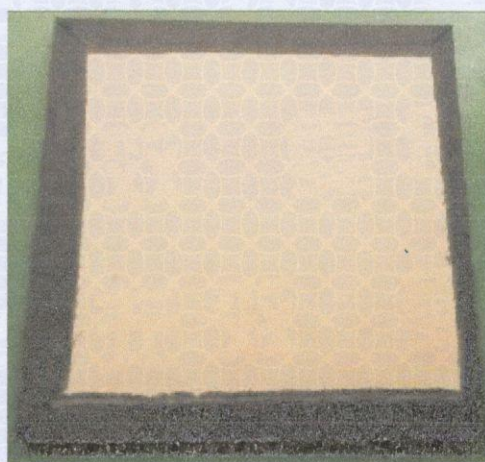
Mounting: Type E, 200 mm.

Test area: 10.40m².

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



Front



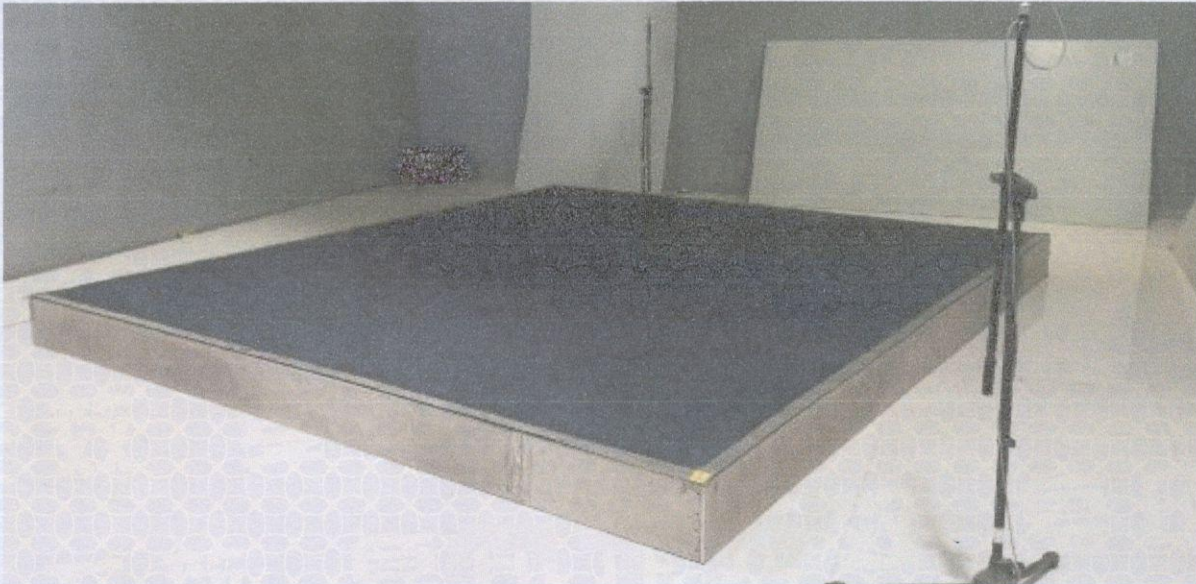
Back

The photo of the sample

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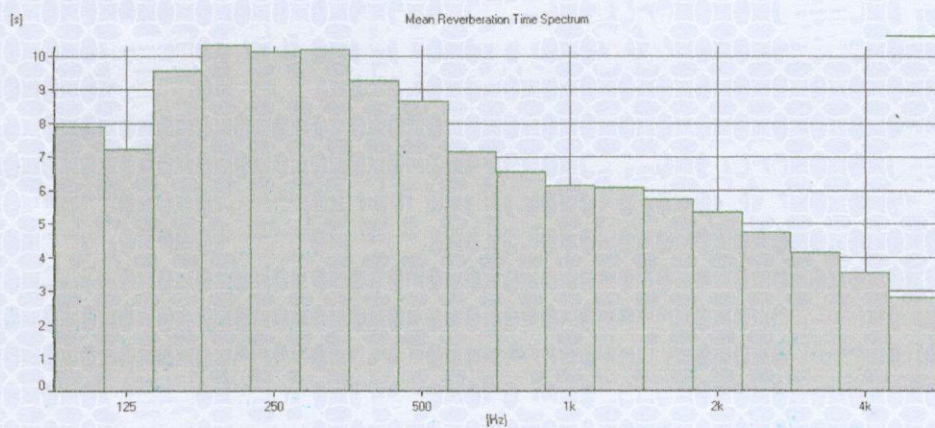
Specimen after mounting

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.

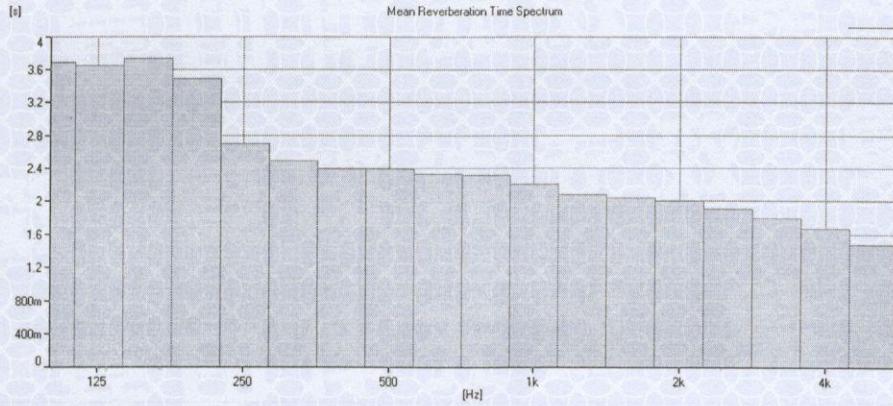
6. Test result

6.1 The reverberation time of the empty reverberation room.



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



6.3 Test results of sound absorption coefficient

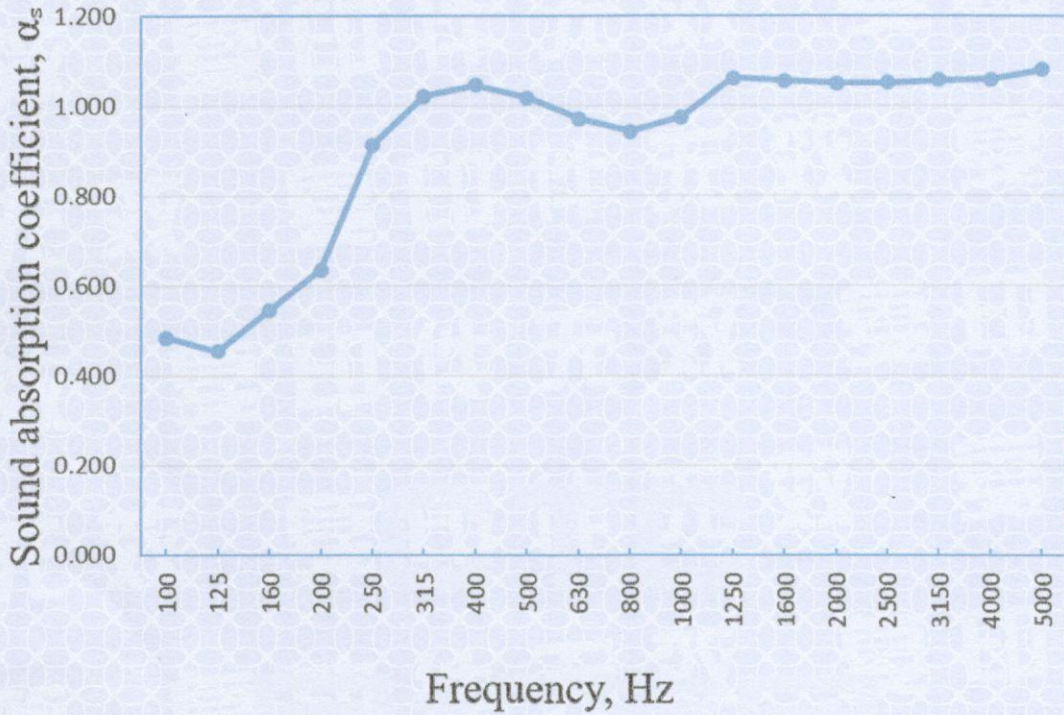
Frequency (Hz)	100	125	160	200	250	315	400	500	630
Sound absorption coefficient α_s	0.485	0.455	0.546	0.636	0.914	1.021	1.046	1.018	0.972
Frequency (Hz)	800	1000	1250	1600	2000	2500	3150	4000	5000
Sound absorption coefficient α_s	0.942	0.975	1.062	1.056	1.049	1.051	1.057	1.058	1.080
Noise reduction coefficient	0.95								

6.4 Test result of weighted sound absorption coefficient α_w

Frequency (Hz)	Reference curve	Absorber
125	—	0.50
250	0.80	0.85
500	1.00	1.00
1000	1.00	1.00
2000	1.00	1.05
4000	0.90	1.05
Weighted sound absorption coefficient α_w	1.00	

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6.5 Sound absorption coefficient- frequency curve



6.6 Weighted sound absorption coefficient- frequency curve

