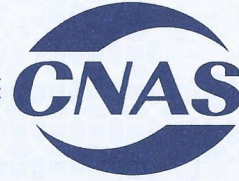




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检测
TESTING
CNAS L0846

TEST REPORT

WQ No.21070111

Product Belbien 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

2021-07-29



Test Report

WQ No.21070111

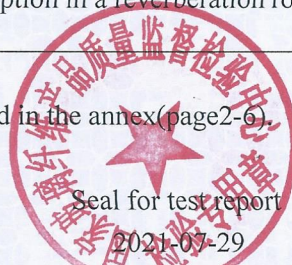
Page 1 of 6

Client	BEIYANG BUILDING MATERIAL CO., LTD.	Address of client	Dongqing Garden Industrial Area, Zhenglu Town, Tianning District, Changzhou, Jiangsu, China
Product	Belbien 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	2021-07-14
Sample state	Hard plate products with wood grain-coated in one face		
Sample quantity	(600×600×15) mm, 30 pieces	Testing period	2021-07-14 - 2021-07-26
Test standard	ISO 354:2003 Acoustics – Measurement of sound absorption in a reverberation room		
Testing result	The sample has been tested and the results are detailed in the annex (page 2-6). The test results only represent the technical properties of the samples received.		
Remark			

Approved by: 张剑红 / Technical Chief

Checked by: 丁晴

Compiled by: 吴佳琦



Annex to Test Report

Test items		Test method	Test results	
Sound absorption coefficient	100 Hz	ISO 354:2003 (Type E, 200 mm, decorative surface faces the sound source)	0.328	Detailed in page3-6.
	125 Hz		0.275	
	160 Hz		0.635	
	200 Hz		0.565	
	250 Hz		0.368	
	315 Hz		0.323	
	400 Hz		0.326	
	500 Hz		0.324	
	630 Hz		0.337	
	800 Hz		0.373	
	1000 Hz		0.490	
	1250 Hz		0.676	
	1600 Hz		0.598	
	2000 Hz		0.427	
	2500 Hz		0.279	
	3150 Hz		0.231	
	4000 Hz		0.182	
5000 Hz	0.142			
Noise reduction coefficient NRC			0.40	
Weighted sound absorption coefficient α_w			0.35(L)	

Annex to Test Report

Details of sound absorption test in a reverberation room

1. Test method

ISO 354:2003 *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 64%, speed of sound 347.65m/s.

4. Specimen and mounting

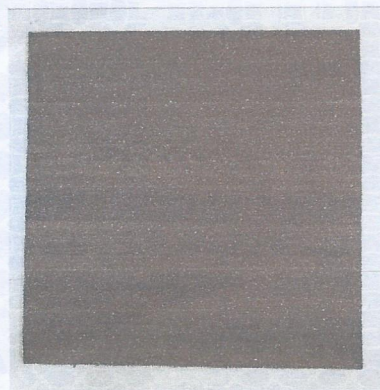
Name of the sample: Belbien Fiberglass Acoustic Panel. The sample is hard plate products with wood grain-coated in one face.

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

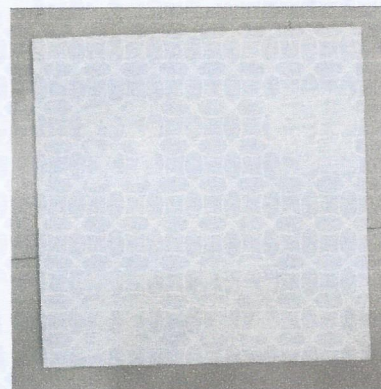
Mounting: Type E, 200 mm, decorative surface faces the sound source.

Test area: 10.41m².

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



Front



Back

The photo of the sample

Annex to Test Report



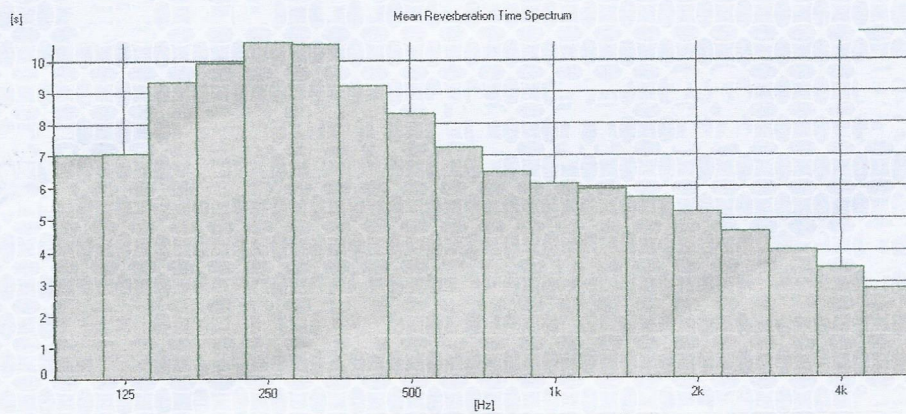
Specimen after mounting

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.

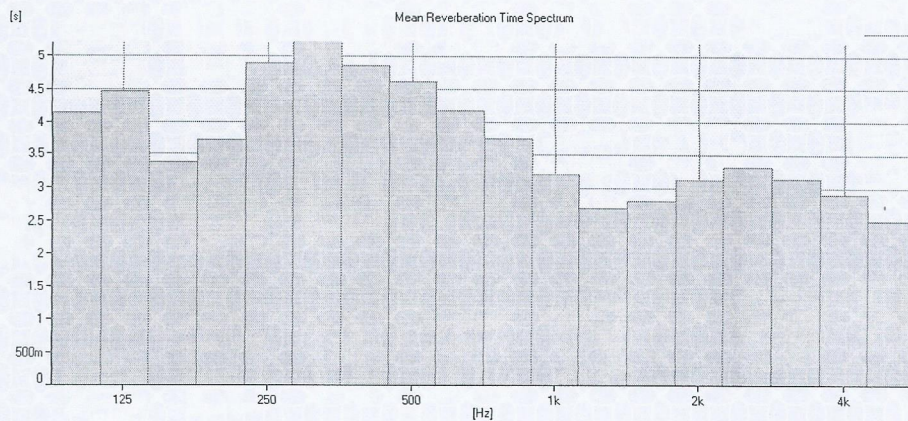
6. Test result

6.1 The reverberation time of the empty reverberation room.



Annex to Test Report

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



6.3 Test results of sound absorption coefficient

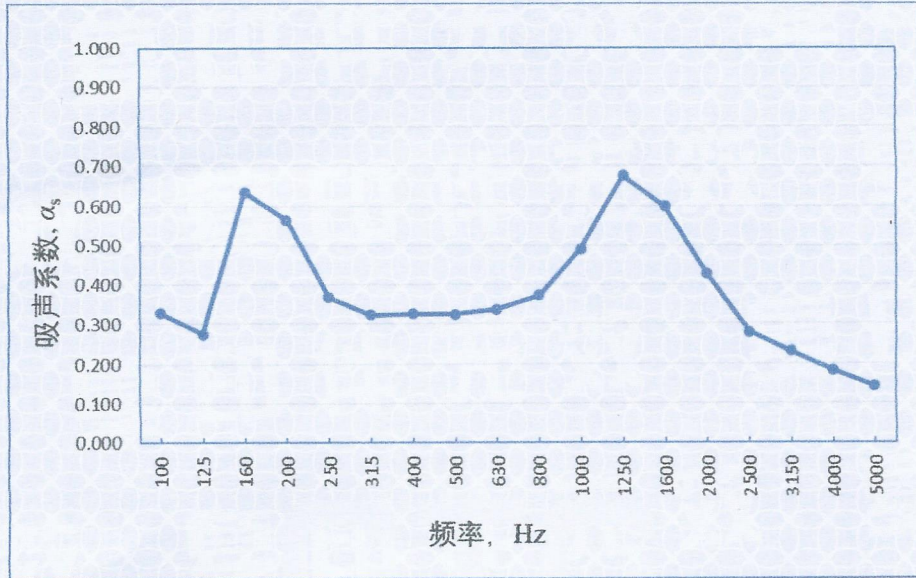
Frequency (Hz)	100	125	160	200	250	315	400	500	630
Sound absorption coefficient α_s	0.328	0.275	0.635	0.565	0.368	0.323	0.326	0.324	0.337
Frequency (Hz)	800	1000	1250	1600	2000	2500	3150	4000	5000
Sound absorption coefficient α_s	0.373	0.490	0.676	0.598	0.427	0.279	0.231	0.182	0.142
Noise reduction coefficient	0.40								

6.4 Test result of weighted sound absorption coefficient α_w

Frequency (Hz)	Reference curve	Absorber
125	—	0.40
250	0.15	0.40
500	0.35	0.35
1000	0.35	0.50
2000	0.35	0.45
4000	0.25	0.20
Weighted sound absorption coefficient α_w	0.35(L)	

Annex to Test Report

6.5 Sound absorption coefficient- frequency curve



6.6 Weighted sound absorption coefficient- frequency curve

