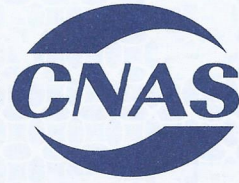




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检测
TESTING
CNAS L0846

TEST REPORT

WQ No.21070112

Product 3M DI-NOC 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.21070112

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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	3M DI-NOC 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 white punching film 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(page2-6). Seal for test report 2021-07-29 The test results only represent the technical properties of the samples received.		
Remark			

Approved by: 张剑 / Technical Chief

Checked by: 丁晴

Compiled by: 吴佳高



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)	0.329	Detailed in page3-6.
	125 Hz		0.319	
	160 Hz		0.683	
	200 Hz		0.626	
	250 Hz		0.448	
	315 Hz		0.442	
	400 Hz		0.433	
	500 Hz		0.451	
	630 Hz		0.445	
	800 Hz		0.452	
	1000 Hz		0.542	
	1250 Hz		0.706	
	1600 Hz		0.778	
	2000 Hz		0.674	
	2500 Hz		0.531	
	3150 Hz		0.458	
	4000 Hz		0.406	
5000 Hz	0.351			
Noise reduction coefficient NRC			0.55	
Weighted sound absorption coefficient α_w			0.50	

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

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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 27°C, relative humidity 57%, speed of sound 347.65m/s.

4. Specimen and mounting

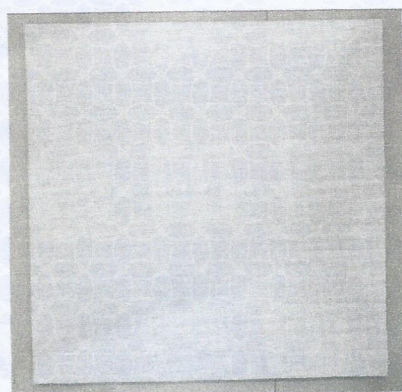
Name of the sample: 3M DI-NOC Fiberglass Acoustic Panel. The sample is hard plate products with white punching film in one face.

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

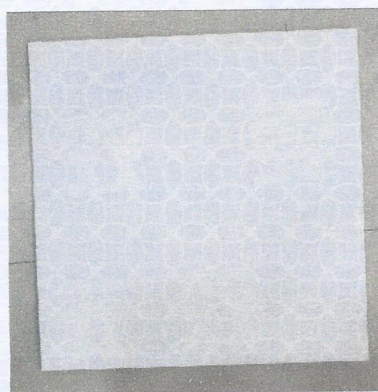
Mounting: Type E, 200 mm, decorative surface faces the sound source.

Test area: 10.42m².

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



Front



Back

The photo of the sample



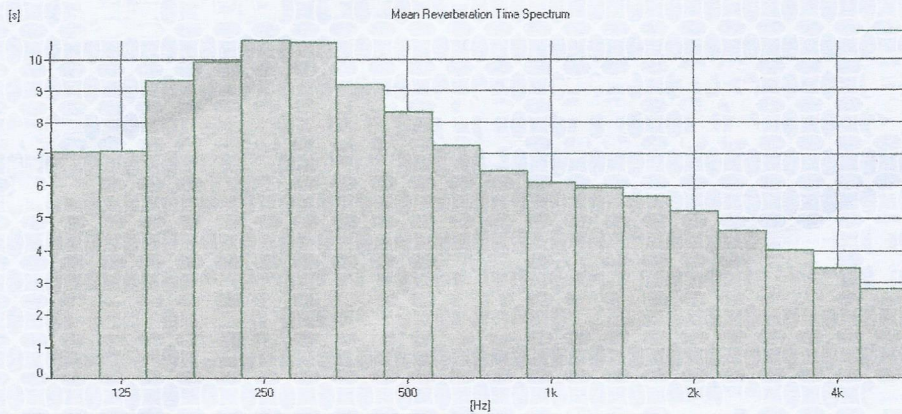
Specimen after mounting

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.

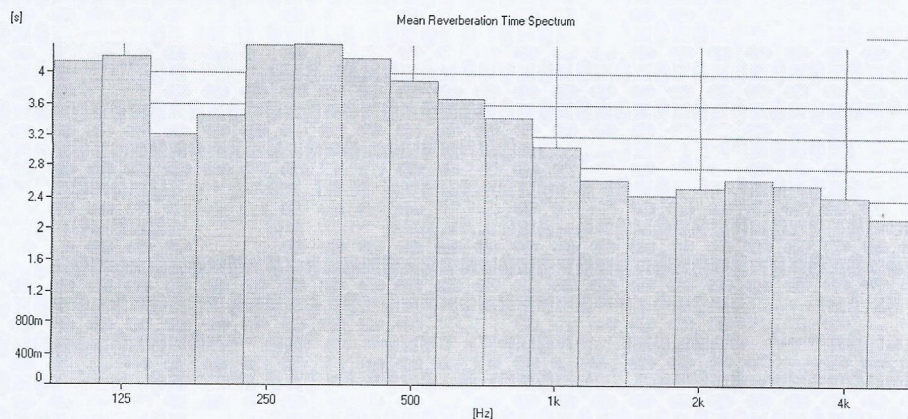
6. Test result

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

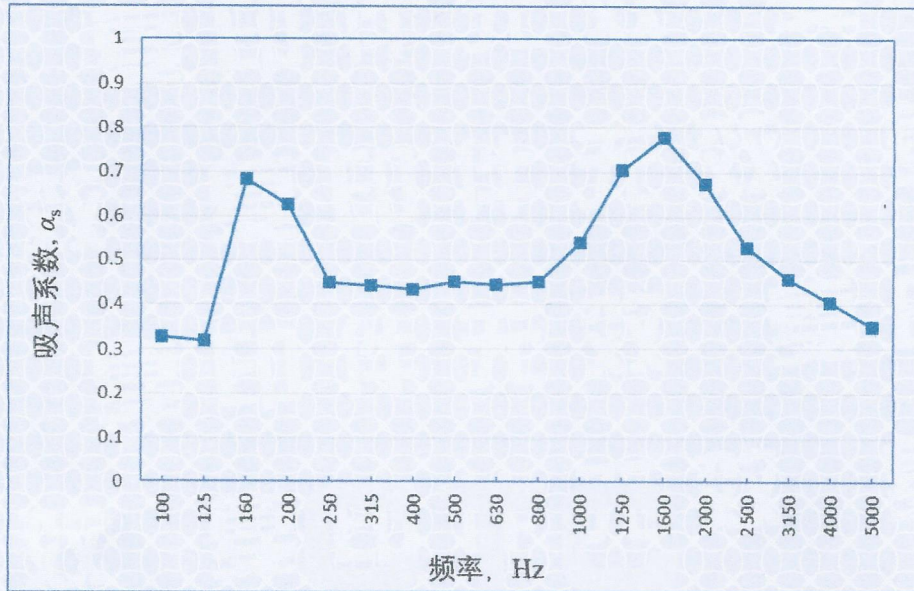
Frequency (Hz)	100	125	160	200	250	315	400	500	630
Sound absorption coefficient α_s	0.329	0.319	0.683	0.626	0.448	0.442	0.433	0.451	0.445
Frequency (Hz)	800	1000	1250	1600	2000	2500	3150	4000	5000
Sound absorption coefficient α_s	0.452	0.542	0.706	0.778	0.674	0.531	0.458	0.406	0.351
Noise reduction coefficient	0.55								

6.4 Test result of weighted sound absorption coefficient α_w

Frequency (Hz)	Reference curve	Absorber
125	—	0.45
250	0.30	0.50
500	0.50	0.45
1000	0.50	0.55
2000	0.50	0.65
4000	0.40	0.40
Weighted sound absorption coefficient α_w	0.50	

Annex to Test Report

6.5 Sound absorption coefficient- frequency curve



6.6 Weighted sound absorption coefficient- frequency curve

