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(2017)国认监认字(047)号



中国认可  
国际互认  
检测  
TESTING  
CNAS L0846

# TEST REPORT

WSW

Product Fiberglass sound-absorbing board

Client Technical Materials Company Limited

Test Type Entrusted Testing

Nanjing Fiberglass Research & Design Institute, Testing Laboratory

China National Fiberglass Product Quality Supervision & Testing Center


December 21, 2020

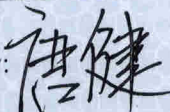




# Test Report

WSW [REDACTED]

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Client	Technical Materials Company Limited	Address of client	Unit D, Halesfield 10, Telford, Shropshire, TF7 4QP
Product	Fiberglass sound-absorbing board	Specification	(600×600×40)mm
Trade mark	----	Sample sender	[REDACTED]
Manufacture	[REDACTED]	Production date Original code	----
Test items	Noise reduction coefficient (Type E, 200mm, the thin felt side is upward).		
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	December 9, 2020
Sample state	Yellow fiber board composite covered with a thin white felt on one side		
Sample quantity	(600×600×40)mm, 32 pieces	Testing period	2020.12.9 - 2020.12.21
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 (page2-5). Seal for test report December 21, 2020 		
Declaration	The test results only represent the technical properties of the samples received.		

Approved by:  /Technical Chief Checked by: 

Compiled by: 

Annex to Test Report

WSW

Test item		Test method	Test result
Sound absorption coefficient	100 Hz	GB/T 20247-2006 (Type E, 200mm, the thin felt side is upward)	0.486
	125 Hz		0.540
	160 Hz		0.701
	200 Hz		0.705
	250 Hz		0.826
	315 Hz		0.884
	400 Hz		1.081
	500 Hz		1.072
	630 Hz		1.008
	800 Hz		0.974
	1000 Hz		0.945
	1250 Hz		0.943
	1600 Hz		0.929
	2000 Hz		0.890
	2500 Hz		0.846
3150 Hz	0.734		
4000 Hz	0.673		
5000 Hz	0.527		
NRC			0.90

Detailed in page 3~5

## Annex to Test Report

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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  $218\text{m}^3$ , area  $44\text{m}^2$ .

B&K acoustic testing system.

### 3. Test environment

Temperature  $15^\circ\text{C}$ , relative humidity 46%, speed of sound  $340.45\text{m/s}$ .

### 4. Specimen and mounting

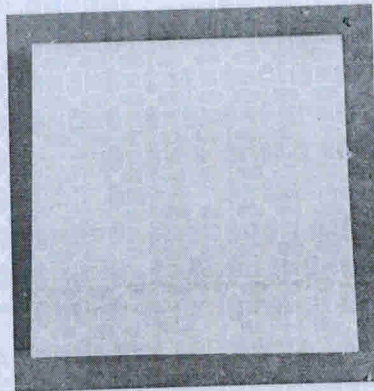
Name of the sample: Fiberglass sound-absorbing board. The sample is yellow fiber board composite covered with a thin white felt on one side.

Dimension of the sample:  $(600 \times 600 \times 40)\text{mm}$ , totally 32 pieces.

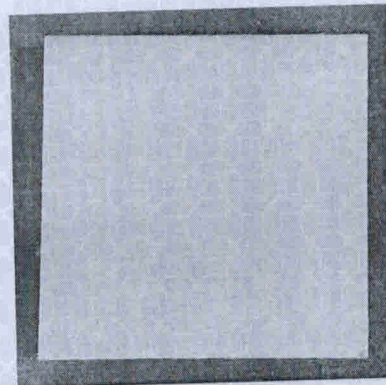
Mounting: Type E, 200mm, the thin felt side is upward.

Test area:  $10.40\text{m}^2$ .

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



Front



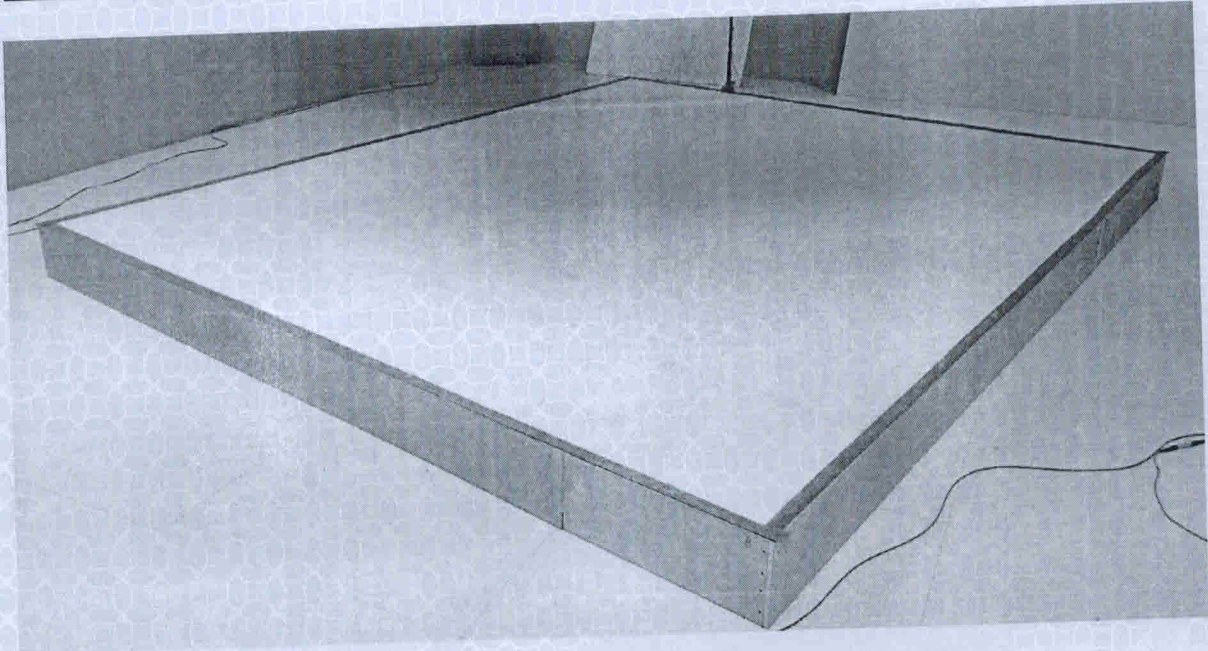
Back

The photo of the sample

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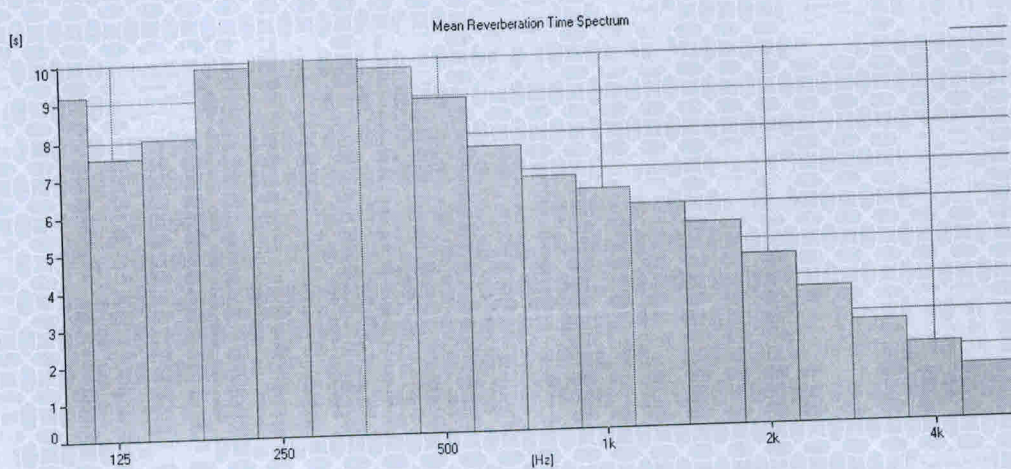
Specimen after mounting

### 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

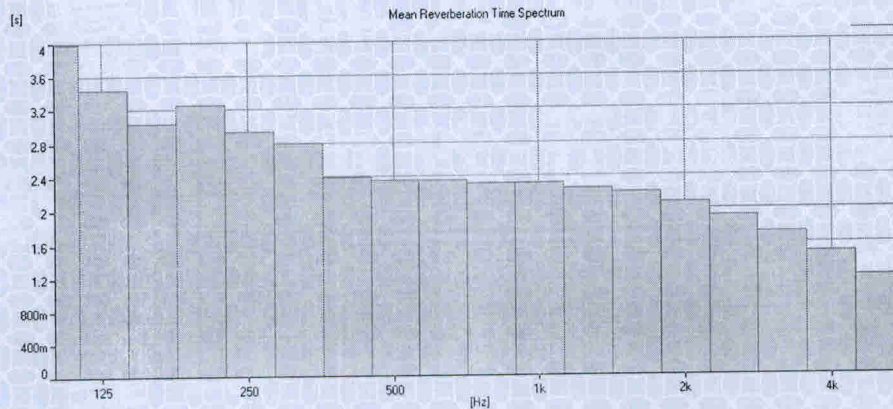


## Annex to Test Report

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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 $\alpha_s$	0.486	0.540	0.701	0.705	0.826	0.884	1.081	1.072	1.008
Frequency (Hz)	800	1000	1250	1600	2000	2500	3150	4000	5000
Sound absorption coefficient $\alpha_s$	0.974	0.945	0.943	0.929	0.890	0.846	0.734	0.673	0.527
Noise reduction coefficient	0.90								

6.4 Sound absorption coefficient- Frequency curve

