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中国认可
国际互认
检测
TESTING
CNAS L0690

TEST REPORT

No: WT2020B03A01093

Entrusted by SHENZHEN XINTAO ACRYLIC
CO.,LTD

Sample Name Acrylic sound barrier sheet

Test Type ADVANCED MATERIALS
Entrustment test

**National Research Center of Testing Techniques
for Building Materials
China Building Material Test & Certification
Group Co.,Ltd.**



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Sample Name	Acrylic sound barrier sheet	Test Type	Entrustment test
Entrusted by	SHENZHEN XINTAO ACRYLIC CO.,LTD	Brand	XINTAO
Manufacturer	ANHUI XINTAO PHOTOELECTRIC TECHNOLOGY CO.,LTD	Sample Description	According with testing requirements
Sample Received Date	October 12, 2020	Quantity	3 sheets
Production Date/ Batch No.	October 9, 2020	Model/Size	1220mm×2440mm ×15mm
Test Standard	Described on the data page.	Test Date	October 13 -November 16,2020
Judgment Standard	TB/T 3122-2019 Acoustic elements of railway sound barrier GB 8624-2012 Classification for burning behavior of building materials and products		
Test Items	Airborne sound insulation, exterior, etc. A total of 12 items. See pages 2~6.		
Conclusion	<p>* According to TB/T 3122-2019, the test results of items 1~10 comply with the requirements, according to GB 8624-2012, the test results of fire classification comply with the requirements of flat building materials and products with Class B₂(E), the test results of density see page 4.</p> <p style="text-align: right;">Date of issued: November 17, 2020</p>		
Remarks:	(Provided by the client) Level: A.		



Approved by: Verified by: Compiled by:

Test Institution Address: No.1 Guanzhuang Dongli, Chaoyang District, Beijing, China
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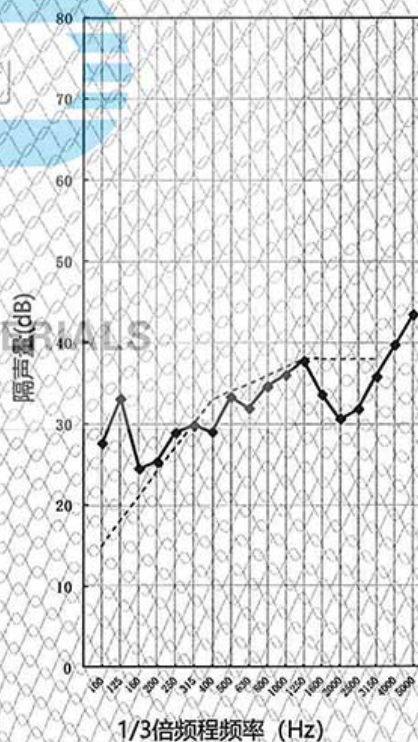
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No.	Test Item	Requirements of Standard	Test Results	Individual Conclusion	Test Standard	
1	Weighted sound reduction	$\geq 30\text{dB}$	34 dB	Pass	GB/T 19889.3-2005	
	Airborne sound insulation	125Hz	$\geq 15\text{dB}$	33.1dB		Pass
		250Hz	$\geq 16\text{dB}$	28.9dB		Pass
		500Hz	$\geq 25\text{dB}$	33.3dB		Pass
		1000Hz	$\geq 30\text{dB}$	36.0dB		Pass
		2000Hz	$\geq 30\text{dB}$	30.6dB		Pass
		4000Hz	$\geq 35\text{dB}$	39.7dB		Pass

Sound insulation table of the test piece

Frequency, Hz	Sound insulation, dB
100	27.6
125	33.1
160	24.5
200	25.3
250	28.9
315	29.8
400	29.0
500	33.3
630	31.9
800	34.6
1000	36.0
1250	37.7
1600	33.6
2000	30.6
2500	31.8
3150	35.8
4000	39.7
5000	43.4
$R_w(C; C_{tr})$	34(-1; -2)

Sound insulation characteristic curve of the test piece



Remarks: 1. Test address: Guanzhuang. 2. The relative air humidity: 55%, the temperature: 23°C, the atmospheric pressure of the experimental room: 100.2kPa. 3. The thickness of sample: 20mm, the area density of sample: 18kg/m². 4. Weighted sound reduction (R_w) and spectral correction amount (C, C_{tr}) was calculated according to GB/T 50121-2005. spectral correction amount of different types of noise sources should be selected according to the Table A.0.1 of GB/T 50121-2005.

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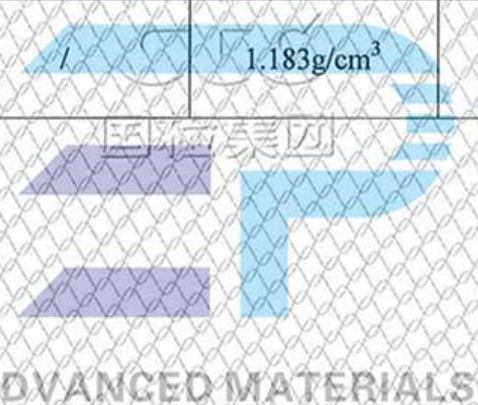
No.	Test Item	Requirements of Standard	Test Results	Individual Conclusion	Test Standard
2	Exterior	No damage on the surface	No damage on the surface	Pass	TB/T 3122-2019 5.9
3	Impact resistance	The samples could be able to withstand the impact by 30J±1J and for brittle materials, local damage such as round pit was allowed, but the depth of the pit should be less than 20mm. If the the thickness of samples is less than 20mm, the depth of the pit should be less than the thickness of samples	Pass	Pass	GB/T 14153-1993 Method A
4	Luminous transmittance (Before use)	≥90%	91%	Pass	GB/T 2410-2008
5	Tensile strength	≥70MPa	74MPa	Pass	GB/T 1040.1-2018
6	Tensile strain at break	≥4%	4.2%	Pass	GB/T 1040.2-2006
7	Flexural strength	≥98MPa	123MPa	Pass	GB/T 9341-2008
8	Compressive modulus	≥3100MPa	3340MPa	Pass	GB/T 1041-2008
9	Coefficient of linear thermal expansion	≤0.07mm/(m·°C)	0.04mm/(m·°C)	Pass	GB/T 1036-2008
Remarks: (Blank)					

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No.	Test Item	Requirements of Standard	Test Results	Individual Conclusion	Test Standard
10	Vicat softening temperature	$\geq 110^{\circ}\text{C}$	119 $^{\circ}\text{C}$	Pass	GB/T 1633-2000
11	Fire classification B ₂ (E)	Fs \leq 150mm within 20s	Fs<150mm within 20s	Pass	GB/T 8626-2007
		No burning drips to ignite the filter paper within 20s	No burning drips to ignite the filter paper within 20s	Pass	
12	Density	/	1.183g/cm ³	/	GB/T 1033.1-2008 5.1
<div style="display: flex; justify-content: center; align-items: center;"> <div style="margin-right: 20px;">(Blank)</div>  </div>					
<p>Remarks: 1.The samples for items 4~10 and 12 are without reinforcing rib or frame.</p> <p>2.Fire classification test results relate to the behaviour of the test specimens of a product under the particular conditions of the test, they are not intended to be the sole criterion for assessing the potential fire hazard of the product in use.</p>					

THE END

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