

## TEST REPORT

No. : GZIN2305000119CM01\_EN

Date : 2023-05-23

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CUSTOMER NAME: FOSHAN YAJ BUILDING CO., LTD  
ADDRESS: ROOM 501 NANGUO BUILDING, GUICHENG, NANHAI DISTRICT,  
FOSHAN CITY, GUANGDONG PROVINCE, CHINA

Sample Name : Polystyrene (EPS) sandwich panel  
Product Specification : Panel thickness 75mm, pre-painted steel sheet thickness 0.4mm, EPS density is 20kg/m<sup>3</sup>  
Manufacturer : FOSHAN YAJ BUILDING CO., LTD

Above information and sample(s) was/were submitted and confirmed by the client. SGS, however, assumes no responsibility to verify the accuracy, adequacy and completeness of the sample information provided by client.

\*\*\*\*\*

Date of Receipt : 2023-05-06  
Testing Period : 2023-05-06 ~ 2023-05-23  
Test result(s) : For further details, please refer to the following page(s)  
(Unless otherwise stated the results shown in this test report refer only to the sample(s) tested)

Signed for  
SGS-CSTC Standards Technical  
Services Co., Ltd. Guangzhou  
Branch.

*Tobby*

Tobby Yang  
Authorized signatory



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### Summary of Results:

No.	Test Item	Test Method	Result	Conclusion
1	Distributed load test of roof panel	With reference to AS/NZS 1170.1:2002 and client's requirement	See Result	/
2	Point load test of roof panel	With reference to AS/NZS 1170.1:2002 and client's requirement	See Result	/

Note:

Pass : Meet the requirements;

Fail : Does not meet the requirements;

N/A : Not Apply to the judgment.



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1. Test Item: Distributed load test of roof panel

Sample Description: See photo

Test Method: With reference to AS/NZS 1170.1:2002 and client's requirement

Test Condition:

Specimen: 3600mm×983mm×112mm,3pcs

Test procedure:

1. Place the roof panel horizontally on two support beams of which the support width is 100mm, the test span is 3400mm as per client's requirement
2. Apply a load on the roof panel in steps of 0.5kPa increments, each load of 0.5kPa shall be applied in a period of 5min, recording the corresponding deformation at the mid-point on both sides
3. Continue to increase the load until failure occur, record the maximum load.

Test result of sample 1#:

Test load	Deformation 1(mm)	Deformation 2(mm)
0.5kPa	6.38	6.84
1.0kPa	12.70	13.00
1.5kPa	20.83	20.98
2.0kPa	29.72	29.65
2.5KPa	40.12	40.00
Failure load	F <sub>max</sub> =2.5kPa(850kg), the roof panel was collapsed	

Test result of sample 2#:

Test load	Deformation 1(mm)	Deformation 2(mm)
0.5kPa	7.68	7.21
1.0kPa	14.00	13.74
1.5kPa	22.09	21.36
2.0kPa	29.99	29.76
Failure load	F <sub>max</sub> =2.3kPa(780kg), the roof panel was collapsed	



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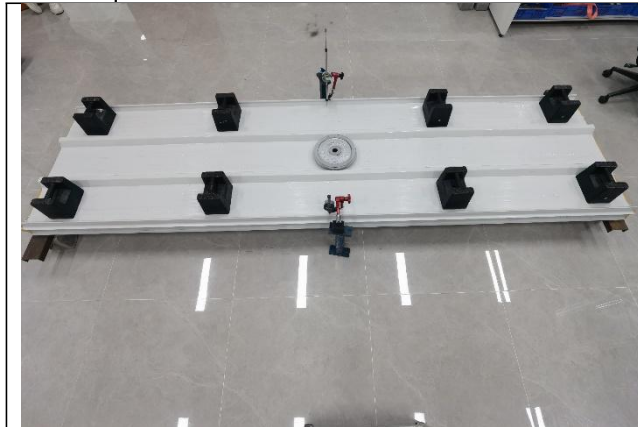
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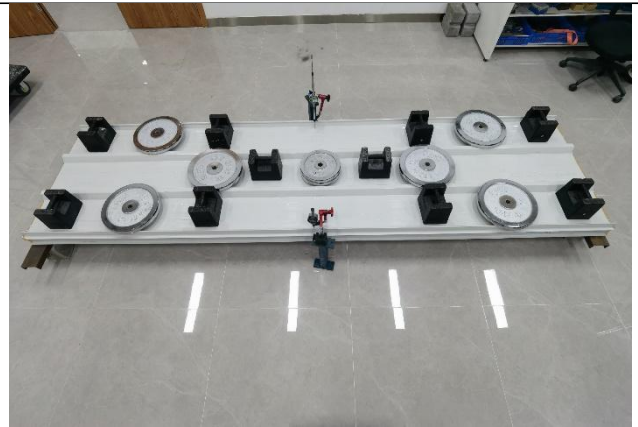
Test result of sample 3#:

Test load	Deformation 1(mm)	Deformation 2(mm)
0.5kPa	4.36	4.81
1.0kPa	10.44	12.05
1.5kPa	17.87	21.44
2.0kPa	26.42	32.74
2.5KPa	33.21	42.10
Failure load	F <sub>max</sub> =2.6kPa(890kg), the roof panel was collapsed	

Test photo:



Load at 0.5kPa(170kg)



Load at 1.0kPa(340kg)

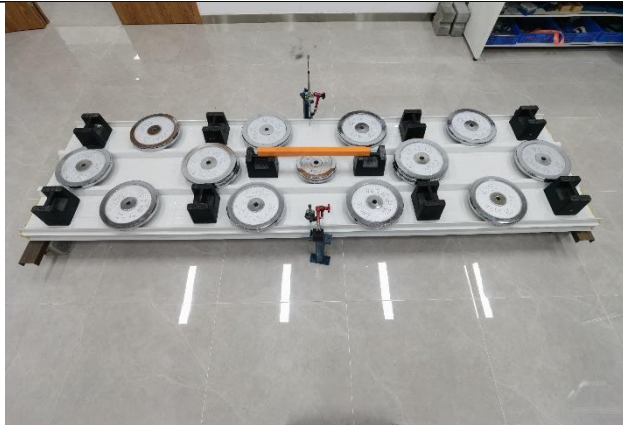


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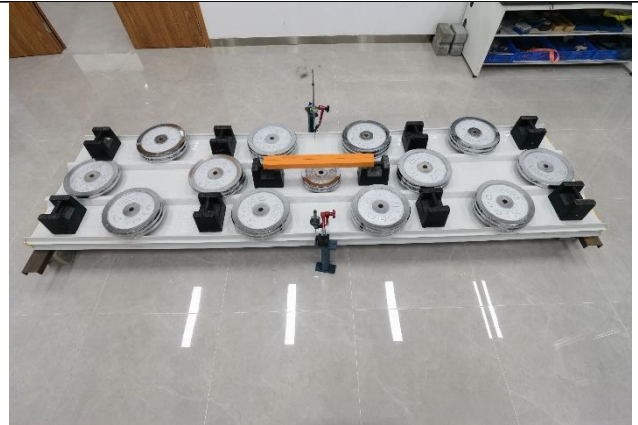
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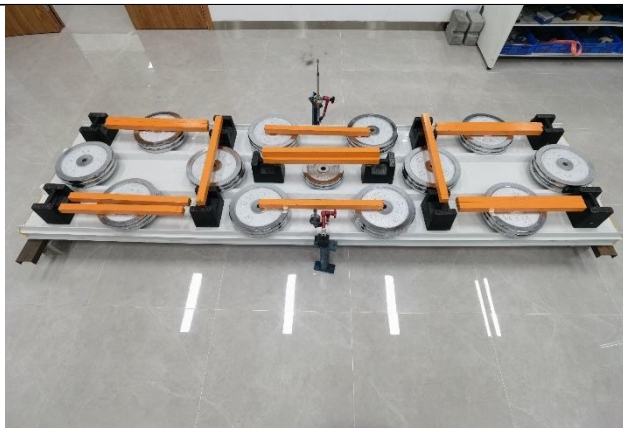
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Load at 1.5kPa(510kg)



Load at 2.0kPa(680kg)



Load at 2.5kPa(850kg)



Sample 1# after test

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Sample 2# after test



Sample 3# after test

2. Test Item: Point load test of roof panel

Sample Description: See photo

Test Method: With reference to AS/NZS 1170.1:2002 and client's requirement

Test Condition:

Specimen: 3600mm×983mm×112mm, 3pcs

Test procedure:

1. Place the roof panel horizontally on two support beams of which the support width is 100mm, the test span is 3400mm as per client's requirement
2. Apply a concentrated load on the roof panel in steps of 500N increments via a test block of which the diameter is 21mm, start the test from 500N, each load shall be held for 5min, recording the corresponding deformation at the center of panel.
3. Continue to increase the load until failure occur, record the maximum load.



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Test result of sample 4#:

Test load	Deformation (mm)
500N	4.80
1000N	8.36
1400N	13.01
1500N	14.21
2000N	19.95
2500N	25.17
3000N	30.34
3500N	37.61
Failure load	$F_{\max}$ =3589N, the roof panel showed structural failure

Test result of sample 5#:

Test load	Deformation (mm)
500N	5.32
1000N	10.00
1400N	14.21
1500N	15.28
2000N	20.59
2500N	26.35
3000N	31.52
Failure load	$F_{\max}$ =3387N, the roof panel showed structural failure



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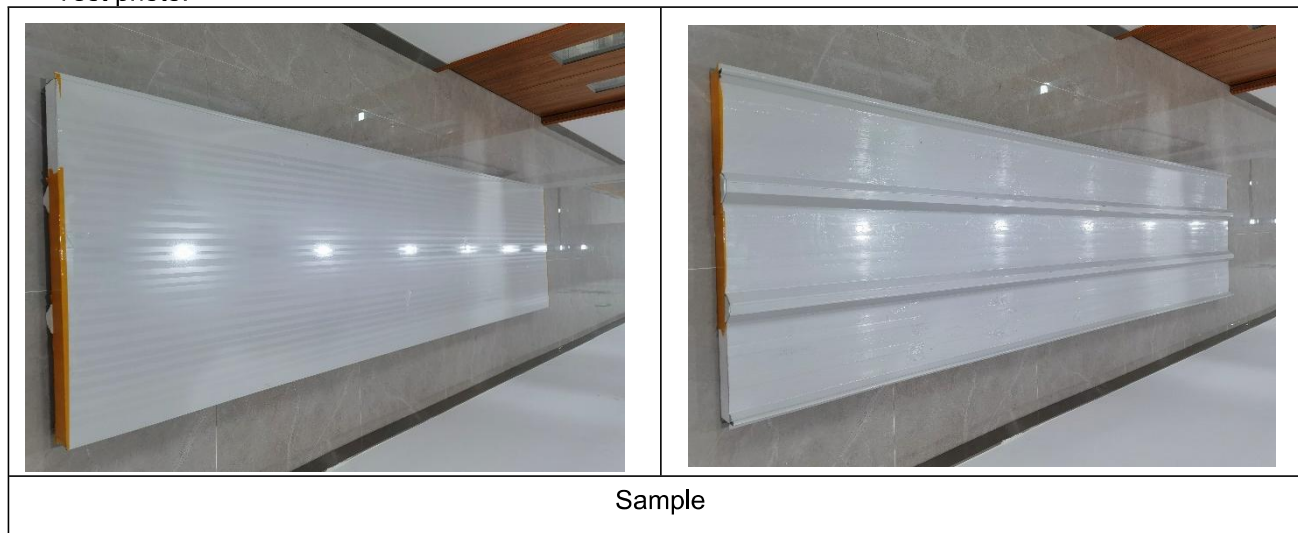
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Test result of sample 6#:

Test load	Deformation (mm)
500N	4.90
1000N	8.99
1400N	13.24
1500N	14.24
2000N	18.81
2500N	23.73
3000N	28.83
Failure load	$F_{\max}=3497N$ , the roof panel showed structural failure

Test photo:



Sample



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Load at 1000N



Load at 1500N



Load at 2000N



Load at 2500N

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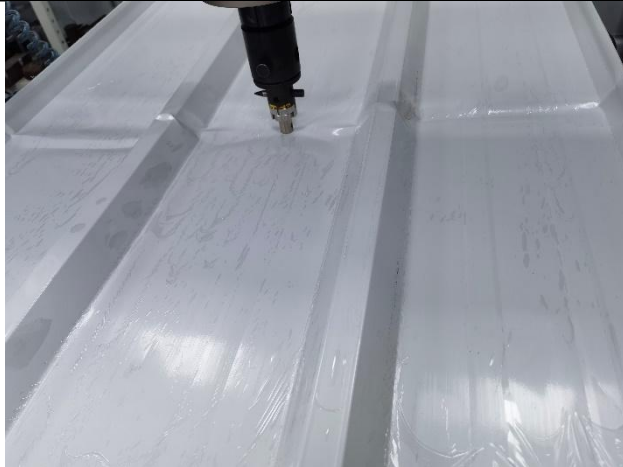
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Load at 3000N



Load at 3500N



Sample 4# after test



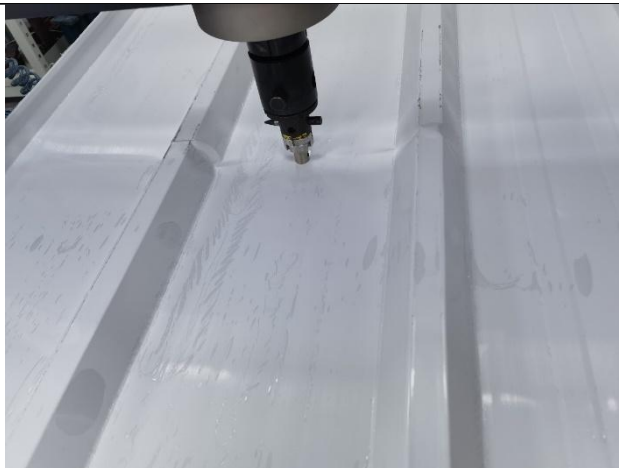
Sample 5# after test

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Sample 6<sup>#</sup> after test

\*\*\*\*\*End of report\*\*\*\*\*



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