

TEST REPORT

No. : SHIN1711069688PS

Date : Dec 01, 2017

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CUSTOMER NAME: JIANGSU QIANYU WPC DECKING TECHNOLOGY CO.,LTD
ADDRESS: JIANGSU PROVINCE,YIXING CITY AND TOWN GATE FU XIANG BRIDGE

Sample Name : WPC DECKING
Product Specification : 140mm*24mm
Manufacturer : JIANGSU QIANYU WPC DECKING TECHNOLOGY 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 : Nov 16, 2017
Testing Start Date : Nov 16, 2017
Testing End Date : Dec 01, 2017
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 (Shanghai) Co., Ltd.

Jane Deng
Authorized signatory



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Original Sample Photo:



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1. Test Item: Mean Coefficient of Linear Thermal Expansion

Sample Description: Brown red solid board

Test Method: ASTM E831-14

Test Condition:

Specimen length: Parallel Sample 1: 9.8104mm,

Parallel Sample 2: 9.7729mm,

Parallel Sample 3: 10.2745mm

Rate of temperature: 5°C/min

Load: 50mN

Flow rate (N₂): 50ml/min

Test temperature: -15°C~60°C

Test direction: Fringe direction

Test Result:

| Test Item | Test Result |
|--|---------------|
| Mean Coefficient of Linear Thermal Expansion | 38.3µm/(m·°C) |

Note: Test specimens were cut from the sample

Original data:

| Specimen | 1 (TMA curve see Fig.1) | 2 (TMA curve see Fig.2) | 3 (TMA curve see Fig.3) |
|--|----------------------------|----------------------------|----------------------------|
| Mean Coefficient of Linear Thermal Expansion | 38.78µm/(m·°C) | 37.24µm/(m·°C) | 38.87µm/(m·°C) |



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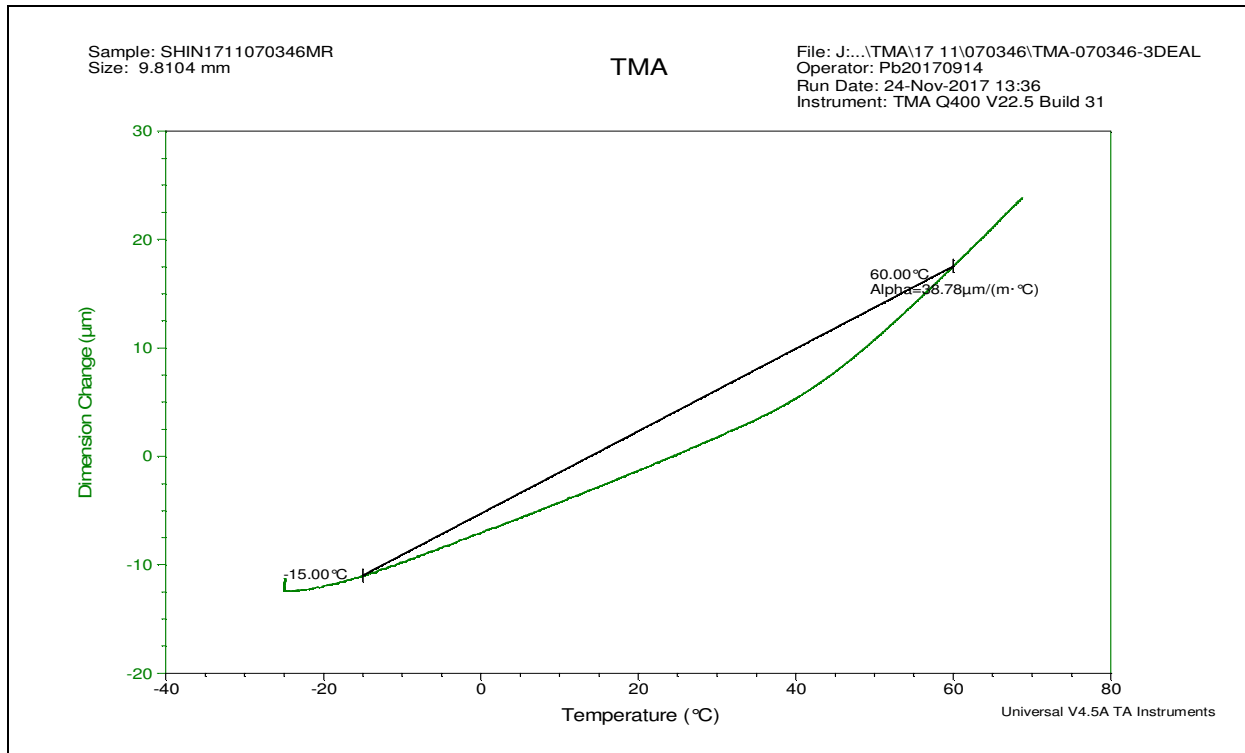
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Fig 1



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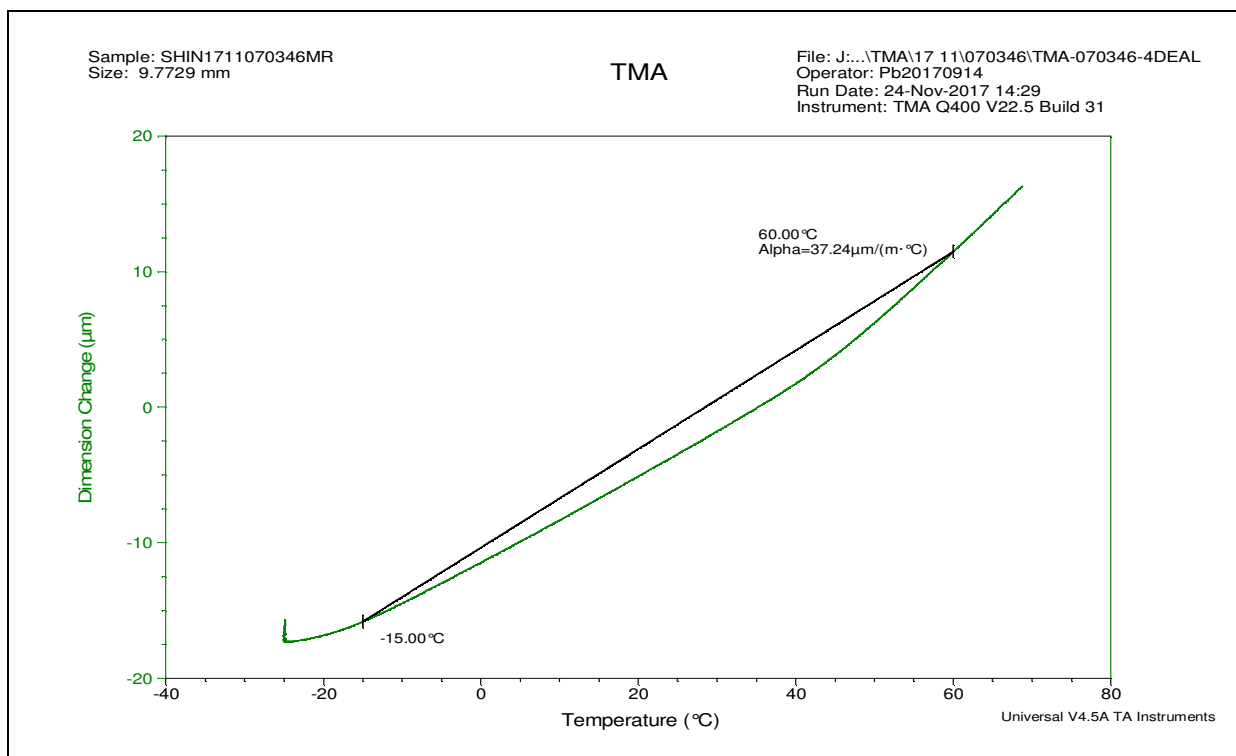
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Fig 2



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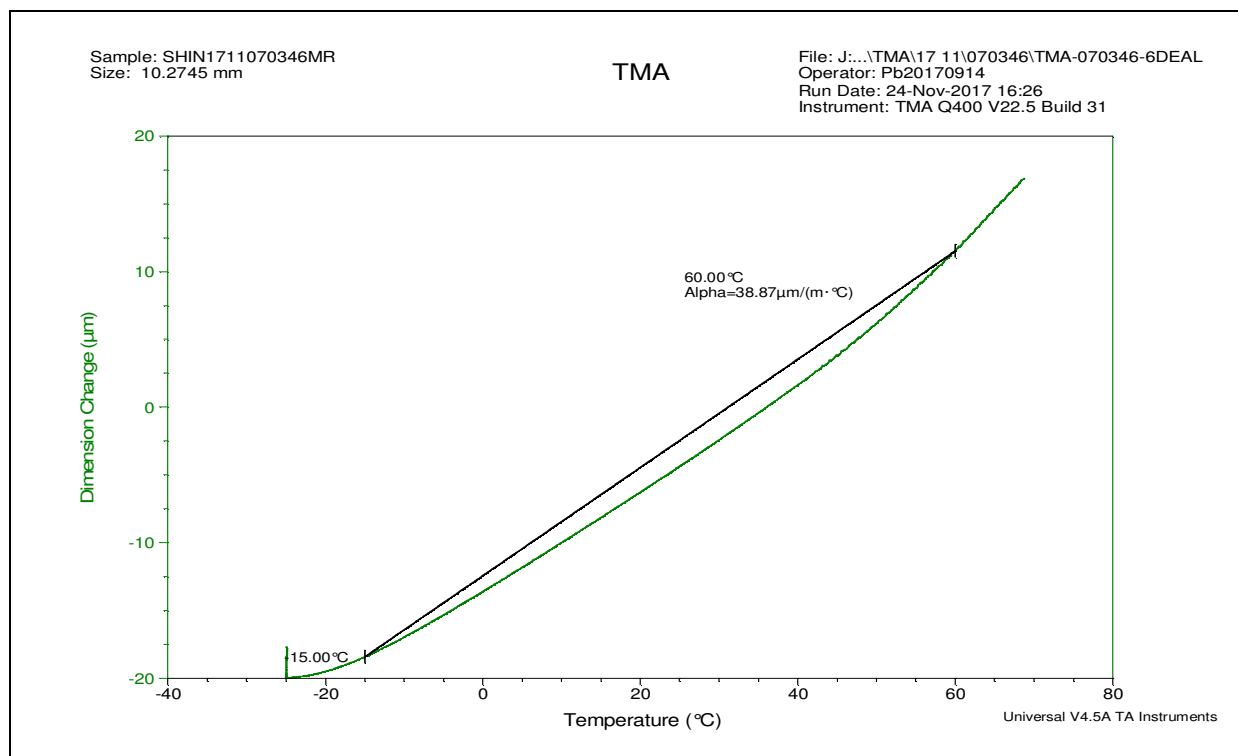
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Fig 3



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2. Test Item: Water Absorption

Sample Description: Brown red solid board

Test Method: ASTM D570-98(2010)^{e1} and client's requirement

Test Condition:

Specimen: 139.82 mm × 59.99 mm×23.10 mm

Drying condition: 50°C, 24h

Immersion condition: 23 °C, 24 h

Lab Environmental Condition: 23±2°C, 50±5%RH

Test Result:

| Test Item | Test Result |
|------------------|-------------|
| Water Absorption | 0.67 % |

Note: Water absorption, %=(Mass after immersion-Mass after drying and before immersion)/Mass after drying and before immersion×100



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3. Test Item: Flexural Strength and Modulus of Elasticity

Sample Description: Brown red solid board

Test Method: ASTM D6109-13 Method A

Test Condition:

Specimen: 550mm×140mm×23mm, 5pcs

Test span: 368mm

Test rate: 10.9mm/min

Testing surface: Front view

Lab Environmental condition: 23±2°C, 50±5%RH

Test Result:

| Test item | Test result | | | | | |
|-----------------------------|------------------|------|------|------|------|---------------|
| | Individual value | | | | | Average value |
| Flexural strength (MPa) | 30.2 | 30.4 | 30.2 | 28.9 | 28.4 | 29.6 |
| Modulus of elasticity (MPa) | 4450 | 4530 | 4650 | 4360 | 4380 | 4470 |

4. Test Item: Impact Resistance

Sample Description: Brown red solid board

Test Method: ASTM D4495-16

Test Condition:

Specimen: 152mm×140mm×23mm, 20pcs

Failing weight: 10lb

Testing surface: Front view

Lab environmental condition: 23±2°C, 50±5%RH

Test Result:

| Test item | Test result | | |
|-------------------|--------------------------|-------------------------|-----------------------------------|
| | Mean failure height (cm) | Mean failure energy (J) | Estimated standard deviation (cm) |
| Impact resistance | 86 | 38 | 3.8 |



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5. Test Item: Slip Resistance

Sample Description: Brown red solid board

Test Method: AS 4586-2013 Appendix A Wet Pendulum Test

Test Condition:

Specimen: 200mm×140mm×23mm, 5pcs

Rubber: Slider 55

Test temperature: 20°C

Temperature correction: 0

Testing surface: Front view

Test direction: Parallel to the length direction

Test Result:

| Test Item | BPN | | | | | Mean BPN | SRV | SRV _{CORR} | Mean SRV _{CORR} |
|-----------------|-----|----|----|----|----|----------|-----|---------------------|--------------------------|
| Slip resistance | 55 | 54 | 53 | 54 | 53 | 54 | 53 | 53 | 53 |
| | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | |
| | 56 | 56 | 55 | 56 | 55 | 56 | 55 | 55 | |
| | 58 | 58 | 57 | 56 | 56 | 57 | 56 | 56 | |
| | 45 | 44 | 43 | 44 | 44 | 44 | 44 | 44 | |



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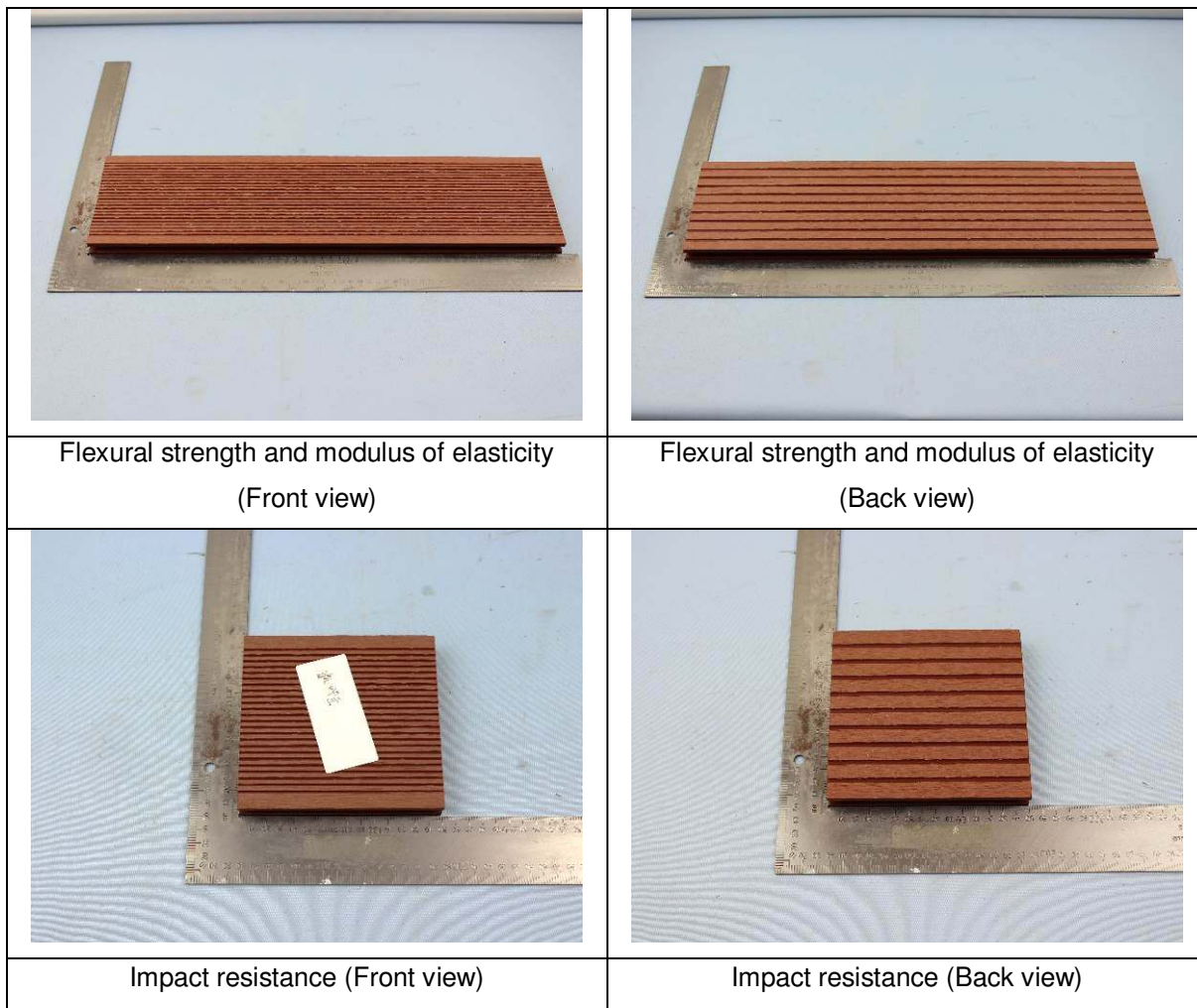
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Test Photo:



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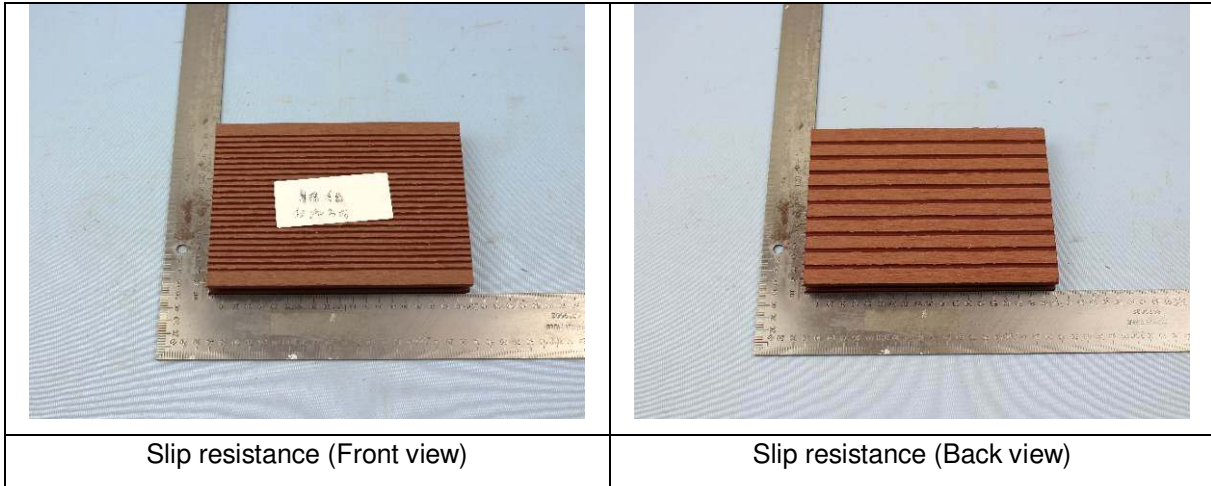
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Slip resistance (Front view)

Slip resistance (Back view)

6. Test Item: Formaldehyde Emission Content

Sample Description: Brown red solid board

Test Method: With reference to GB 18580-2001 Section 6.2, analysis was performed by UV-Vis

Test Result:

| Test Item(s) | Limit | Unit | MDL | 001 |
|-----------------------|-------|------|-----|-----|
| Formaldehyde emission | 1.5 | mg/L | 0.2 | 0.3 |

Conclusion

PASS

Note:

| Product name | Test method | Limit | Using scope | Grade |
|---------------------------------------|-------------------|----------|--|-------|
| Plywood \ veneer plywood \ core-board | Desiccator method | ≤1.5mg/L | can be directly used indoors | E1 |
| | | ≤5.0mg/L | surface must be decorated to be used indoors | E2 |

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