

# **TEST REPORT**

**REPORT NUMBER: 161107004SHF-BP-2**

ORIGINAL ISSUE DATE: 2017-01-18

## **EVALUATION CENTER**

Intertek Testing Services Ltd., Shanghai  
Plant 7, No. 6958 Daye Road, Fengxian District, Shanghai, China

## **RENDERED TO**

**SS Floor Company Limited**

**TANGQIAO, YAOGUAN, WUJIN, CHANGZHOU, JIANGSU PROV., P.R OF CHINA**

## **PRODUCT EVALUATED**

PVC FLOOR

## **EVALUATION PROPERTY**

As requested by the applicant, for details refer to attached pages(s).

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Report Template Revision Date: 2016/9/1

## Test Report

Report Number: 161107004SHF-BP-2

Report Date: 2017-01-18

**Applicant:**

**SS Floor Company Limited**

**Applicant Address:**

**TANGQIAO, YAOGUAN, WUJIN, CHANGZHOU,  
JIANGSU PROV., P.R OF CHINA**

**Sample information**

Product: PVC FLOOR  
Trade Mark: /  
Model and/or type reference: 9"×48"×2.0mm/0.1mm  
9"×48"×6.0mm/1.0mm  
Material: Multi-layer composite (coating layer/wear layer/print film/solid polymer layer)  
Classification of installation and use: Installation way: glueing laying  
The products are intended for use as floor coverings in a building  
Manufacturer: SS Floor Company Limited  
Sample ID: S161107004SHF-001~008  
Date of receipt of test item: 2016-10-31  
Date (s) of performance of tests: 2016-11-07~2017-01-18

**Testing information**

Standard: EN 14041:2004/AC:2006  
Rating(s): Reaction to fire Class B<sub>fl</sub>-s1, Formaldehyde emission Class E1  
Possible Test Case Verdicts  
Test Case does not apply to the Test object: N/A  
Test object does meet the requirement: P (Pass)  
Test object does not meet the requirement: F (Fail)  
The submitted samples were tested in accordance with specified standards, and listed the result accordingly, refer to text for detail.

## Test Report

Report Number: 161107004SHF-BP-2

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<b>EN 14041:2004/AC:2006</b> <b>Resilient, textile and laminate floor coverings-Essential Characteristics</b>			
Clause	Requirement - Test	Result - Remark	Verdict
4	Requirement		
4.1	<p>Reaction to fire</p> <p>The floor covering shall be tested and classified according to the requirements of EN 13501-1 and the resulting class and subclass (as appropriate to the class itself) shall be declared.</p>	<p>9"×48"×2.0mm/0.1mm Reaction to fire class B<sub>fl</sub> -s1</p> <p>9"×48"×6.0mm/1.0mm Reaction to fire class B<sub>fl</sub> -s1</p> <p>Refer to test report in Appendix B (Issue by NB No. 1023)</p>	P
4.3	<p>Formaldehyde emission</p> <p>When formaldehyde-containing materials have been added to the product as a part of the production process, the product shall be tested and classified into one of two classes: E1 or E2.</p>	<p>9"×48"×6.0mm/1.0mm Class E1</p> <p>Refer to test report in Appendix B (Issue by NB No. 1023)</p>	P
4.5	<p>Slip resistance</p> <p>If a claim for slip resistance is made, the floor covering intended to be used in dry and non-contaminated conditions shall have a dynamic coefficient of friction of <math>\geq 0.30</math> when tested ex-factory under dry conditions in accordance with EN 13893 and shall be declared as technical class DS.</p>	<p>Class DS</p> <p>9"×48"×2.0mm/0.1mm Dynamic coefficient of friction: 0.33</p> <p>9"×48"×6.0mm/1.0mm Dynamic coefficient of friction: 0.32</p>	P
5	Evaluation of conformity		
5.1	<p>General</p> <p>The conformity of floor coverings with the requirements of this standard (including classes) shall be demonstrated by: Clause 5.2 and 5.3</p>	Refer to clause 5.2 and 5.3	P
5.2	<p>Initial type testing or assessment</p> <p>Shall be performed to demonstrate conformity with this standard.</p>	Refer to clause 4	P
5.3	<p>Factory production control (FPC)</p> <p>The manufacturer shall establish, document and maintain an FPC system to ensure that the products placed on the market conform to the stated performance requirements.</p>	<p>The manufacture has established a Quality management system according to ISO 9001.</p> <p>See Appendix A</p>	P

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<b>EN 14041:2004/AC:2006</b>			
<b>Resilient, textile and laminate floor coverings-Essential Characteristics</b>			
Clause	Requirement - Test	Result - Remark	Verdict
6	Marking and labeling Product which conform to the requirements of this document shall be clearly and indelibly marked by the manufacturer either on their package or on an adhesive label with following information: a) the number and the year of this European Standard b) the manufacturer's or supplier's identification c) the product name and batch number	See Appendix C 'Copy of marking plate'	P

Appendix A: ISO 9001 Certificate



**Test Report**

**Report Number: 161107004SHF-BP-2**

**Report Date: 2017-01-18**

**Appendix B: NB Report**

Reference No. 75 35 01397  
Page 1 of 7



**INSTITUTE FOR TESTING AND CERTIFICATION**  
třída Tomáše Bati 299, Louky, 763 02 Zlín, Czech Republic

**TEST REPORT**

Reference No. 75 35 01397/ 2016

**Applicant: SS Floor Company Limited**  
**TANGQIAO, YAOGUAN, WUJIN, CHANGZHOU,**  
**JIANGSU PROV., P.R. OF CHINA**

**Product: PVC Floor – heterogeneous PVC floor covering**  
**tiles, types: 2.0 mm, 6.0 mm**

**Manufacturer: SS Floor Company Limited**  
**TANGQIAO, YAOGUAN, WUJIN, CHANGZHOU,**  
**JIANGSU PROV., P.R. OF CHINA**

Elaborated by: Milan Kovář

A handwritten signature in blue ink, appearing to read 'Milan Kovář', is written over the text 'Elaborated by: Milan Kovář'.

Issued on: 21<sup>st</sup> December 2016



A handwritten signature in blue ink, appearing to read 'RNDr. Radomír Čevelík', is written above the text 'RNDr. Radomír Čevelík' and 'Representative of Notified Body No. 1023'.  
RNDr. Radomír Čevelík  
Representative of Notified Body No. 1023

**INSTITUTE FOR TESTING AND CERTIFICATION**Notified Body 1023  
763 02 Zlín, Czech Republic

Notified Body No. 1023 \* State Authorized Body No. 224 \* Product and Management Systems Certification Bodies \* Accredited Laboratory

Reference No. 75 35 01397

Page 2 of 7

**1. Introduction**

This report was elaborated on the basis of the application *No. 753501397, registered on 10/11/2016* and tests results carried out by the notified testing laboratory in accordance with the procedure mentioned in the article 1.4 of the Annex V to the Regulation (EU) No. 305/2011 of the European Parliament and of the Council of 9 March 2011, as amended, laying down harmonised conditions for the marketing of construction products („CPR“).

**2. Assessment and verification of constancy of performance according to Regulation (EU) No 305/2011 of the European Parliament and of the Council, as amended**

Floor coverings as construction products are assessed on the basis of relevant clauses of the Regulation (EU) No 305/2011 of the European Parliament and of the Council of 9th March 2011 laying down harmonised conditions for marketing of construction products and repealing Council Directive 89/106/EEC as amended (called „CPR“)

**2.1 System of assessment and verification of constancy of performance (AVCP)**

The submitted product is assessed pursuant to system of AVCP 3 of the CPR (Annex V).

The type testing was carried out according to Annex ZA of the standard ČSN EN 14041 (EN 14041:2004/AC:2006).

**2.2 Indicators specifying basic requirements for construction works**

The initial type testing was carried out by the notified body (the notified test laboratory) in the following range of relevant properties according to Table ZA.4 (of the ČSN EN 14041):

- Reaction to fire
  - ignitability – surface exposure according to ČSN EN ISO 11925-2 (exposure time: 15s)
  - burning behaviour using a radiant heat source according to ČSN EN ISO 9239-1 /test samples were glued to the standard substrate/
  - classification according to ČSN EN 13501-1+A1
- Formaldehyde emission according to ČSN EN 717-1 (only type: 6.0 mm)



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Reference No. 75 35 01397  
Page 3 of 7

**2.3 Product specification**

PVC heterogeneous floor covering tiles. Laying way: glueing

Dimensions: 228.6 mm x 1219.2 mm

Composition: Multi-layer composite (coating layer/wear layer/print film/solid polymer layer)

Total thickness (wear layer thickness):

- Type 2.0 mm:2.0 mm (0.1 mm)
- Type 6.0 mm:6.0 mm (1.0 mm)

**2.4 Sampling place and number of samples taken**

The test samples were sent by the manufacturer. The number of the test samples sent was as follows:

- PVC heterogeneous floor covering tiles, type: 2.0 mm in the amount of 18 pcs tiles
- PVC heterogeneous floor covering tiles, type: 6.0 mm in the amount of 18 pcs tiles and 4 pcs tiles (packed into foil)

The test samples were registered under the registration numbers 75 35 01397/1 and 75 35 01397/2 on 15/11/2016.

Sample photo:







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Reference No. 75 35 01397  
Page 4 of 7

### 2.5 Place and date of testing

- Institut pro testování a certifikaci (ITC), a.s., NB 1023, accredited laboratory No. 1004 Zlín (November 2016)
- Centrum stavebního inženýrství (CSI), a.s. Prague, Fire Technical Laboratory, Accredited test laboratory No.1007.4, NB 1390 (December 2016)
- Výzkumný a vývojový ústav dřevařský, Praha, s.p., NB 1393, accredited laboratory No. 1031, Prague (November-December 2016)

### 2.6 Test results

#### 2.6.1 Ignitability results

Table 1 – Ignitability test results - type: 2.0 mm

Characteristic	Surface exposure test – lengthwise direction (characteristic for individual test specimens)	Surface exposure test – crosswise direction (characteristic for individual test specimens)
Ignition of the test specimen Yes/No	No, No, No, No, No	No, No, No, No, No
Flame reaching of a mark in distance of 150 mm Yes/No	No, No, No, No, No	No, No, No, No, No
Burning time to reach 150 mm (s)	- , - , - , - , -	- , - , - , - , -
Ignition of the filter paper	No, No, No, No, No	No, No, No, No, No

Table 2 – Ignitability test results - type: 6.0 mm

Characteristic	Surface exposure test – lengthwise direction (characteristic for individual test specimens)	Surface exposure test – crosswise direction (characteristic for individual test specimens)
Ignition of the test specimen Yes/No	No, No, No, No, No	No, No, No, No, No
Flame reaching of a mark in distance of 150 mm Yes/No	No, No, No, No, No	No, No, No, No, No
Burning time to reach 150 mm (s)	- , - , - , - , -	- , - , - , - , -
Ignition of the filter paper	No, No, No, No, No	No, No, No, No, No



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Notified Body No. 1023 \* State Authorized Body No. 224 \* Product and Management Systems Certification Bodies \* Accredited Laboratory

Reference No. 75 35 01397

Page 5 of 7

### 2.6.2 Results of burning behaviour using a radiant heat source

Table 3 - Results of burning behaviour using a radiant heat source – type: 2.0 mm

Characteristic	Measuring unit	Crosswise direction measurement	Lengthwise direction measurement (mean value)
Maximum distance of flame spread	mm	200	216.7
Critical heat flux (CHF)	kW/m <sup>2</sup>	9.1	<b>8.8</b>
Distance of flame spread at 10th min.	mm	180	113.3
HF-10	kW/m <sup>2</sup>	9.5	8.8
Distance of flame spread at 20th min.	mm	(-)	(-)
HF-20	kW/m <sup>2</sup>	(-)	(-)
Distance of flame spread at 30th min.	mm	(-)	(-)
HF-30	kW/m <sup>2</sup>	(-)	(-)
Maximum light attenuation	%	35.1	47.2
Integrated smoke value	% x min	115.3	<b>138.8</b>

Table 4 - Results of burning behaviour using a radiant heat source – type: 6.0 mm

Characteristic	Measuring unit	Crosswise direction measurement	Lengthwise direction measurement (mean value)
Maximum distance of flame spread	mm	210	223.3
Critical heat flux (CHF)	kW/m <sup>2</sup>	8.9	<b>8.6</b>
Distance of flame spread at 10th min.	mm	180	216.7
HF-10	kW/m <sup>2</sup>	9.5	8.5
Distance of flame spread at 20th min.	mm	(-)	(-)
HF-20	kW/m <sup>2</sup>	(-)	(-)
Distance of flame spread at 30th min.	mm	(-)	(-)
HF-30	kW/m <sup>2</sup>	(-)	(-)
Maximum light attenuation	%	48.7	54.5
Integrated smoke value	% x min	165.3	<b>219.2</b>



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Reference No. 75 35 01397  
Page 6 of 7

### 2.6.3 Results of the reaction to fire classification

Table 5 – Reaction to fire classification

Product	Reaction to fire class	Additional class for smoke production	Final class
PVC Floor – heterogeneous PVC floor covering tiles, types: 2.0 mm, 6.0 mm	B <sub>f1</sub>	s1	B <sub>f1</sub> – s1

### 2.6.4 Formaldehyde emission result

Table 6 – Results of the formaldehyde emission

Product	Measuring unit	Test result (class)
PVC Floor – heterogeneous PVC floor covering tiles, type: 6.0 mm	mg.m <sup>-3</sup>	0.004 (E1)

**Notified Body NB 1023 has carried out the testing in accordance** with the paragraph 1.4 of Annex V to the Regulation (EU) No 305/2011, as amended for the product specified in the Art. 2.3 of this Report **and concluded that**

all requirements of this paragraph of the above Regulation and the relevant harmonized standard have been met and this report may be issued as a basis for affixing CE marking to these products.

*This Report is applicable only to products identically marked and named, such as those which were the subject to testing, provided that the products characteristics have not been changed or no significant changes in their production (materials, technology, manufacturing equipment, etc.) have been done.*

### 3. List of documents used to elaborate the Test Report

- Application No. 753501397 for assessment of CE-marked construction products
- ČSN EN 14041 (91 7883): Pružné textilní a laminátové podlahové krytiny – Podstatné vlastnosti (Resilient, textile and laminate floor coverings – Essential characteristics)
- Test Report of accredited laboratory, reference No. 753501397/01, elaborated by ITC a.s., accredited laboratory No. 1004, in Zlín, on 02/12/2016

**Test Report****Report Number: 161107004SHF-BP-2****Report Date: 2017-01-18****INSTITUTE FOR TESTING AND CERTIFICATION**

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Reference No. 75 35 01397

Page 7 of 7


- Test Reports, reference No. 16/887/P637, No. 16/888/P638, elaborated by Centrum stavebního inženýrství a.s., Fire Technical Laboratory, Prague, on 21/12/2016
- Test Report, reference No. MVZ-02/16/436, elaborated by Výzkumný a vývojový ústav dřevařský, Praha, s.p., NB 1393, accredited laboratory No. 1031, Prague, on 05/12/2016
- Classification Report using Results of Reaction to Fire No. 75 35 01397K/2016, elaborated by ITC, a.s. Zlín, on 21/12/2016

## Test Report

Report Number: 161107004SHF-BP-2

Report Date: 2017-01-18

### Appendix C: Copy of Marking Plate


<b>SS Floor Company Limited</b> <b>16</b>
EN 14041:2004/AC:2006 PVC FLOOR Reaction to fire    Class B <sub>fl</sub> -s1 Slipperiness        DS Formaldehyde       E1

Note:

1. If the CE marking is reduced or enlarged the proportions given in the above graduated drawing must be respected.
2. The various components of the CE marking must have substantially the same vertical dimension, which may not be less than 5 mm.
3. CE marking and label shall be affixed visibly, legibly and indelibly.

**Appendix D: Sample received photo**



9"×48"×2.0mm/0.1mm



9"×48"×6.0mm/1.0mm

**Approved by:**

Name: Sun Sun

Title: Approver



Name: Sally Xie

Title: Reviewer

Name: Tod Qian

Title: Project Engineer

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The End of Report

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