Textilní zkušební ústav, s.p.

TEXTILNÍ ZKUŠEBNÍ ÚSTAV, s.p.
(Textile Testing Institute)
Notified Body No. 1021
Václavská 237/6, 603 00 Brno, Czech Republic

issues

PERFORMANCE ASSESSMENT PROTOCOL

In compliance with the Regulation (EU) No. 305/2011 of the European Parliament and of the Council of 9 March 2011 laying down harmonised conditions for the marketing of construction products, in the valid wording (Construction Products Regulation – CPR) – Annex V, art. 1.4 (system 3 of AVCP)

No.: 1021 – CPR – 20/079

Product:	**Vinyl flooring - type Sanyang SPC flooring covering** Composition: Polyvinylchloride (22 – 26 %), Calcium Carbonate (71 – 75 %), Stabilizer (1 – 5 %) Thickness: 3,2 – 6,5 mm Mass per unit area: 6,5 – 13,0 kg.m^{-2} Colour: brown / gray
Producer:	**Zhenjiang Sanyang Decoration Materials Co., Ltd.** – Beijing road, Jiangxin town, Dantu district, Zhenjiang City, Jiangsu Province, CHINA
Technical specification:	**EN 14041:2004/ AC:2006 Resilient, textile and laminate floor coverings – Essential characteristics (Art. 4.1 Reaction to fire, Art. 4.3 Formaldehyde emission, Art. 4.5 Slip resistance)**
Test method:	• **EN 13501-1:2007 + A1:2009 Fire classification of construction products and building elements – Part 1: Classification using test data from reaction to fire tests** (EN ISO 11925-2, EN ISO 9239-1) • **EN 717-1:2004 Wood-based panels – Determination of formaldehyde release – Part 1: Formaldehyde release by the chamber method** • **EN 13893:2002 Resilient, laminate and textile floor coverings – Measurement of dynamic coefficient of friction on dry floor surfaces**

Classification:		
	Reaction to fire	**class B_{fl} – s1**
	Formaldehyde emission	**class E1**
	Slip resistance	**class DS**

Terms of protocol application:

This protocol applies to the product mentioned above and can be used only for this product. The protocol must only be published in unshortened form. The Customer can publish a part of the protocol only if approved by the Notified Body 1021. The protocol remains in force as long as the conditions remain the same.
This Protocol issued by Notified Body is only a part of the Performance Assessment Protocol and/but does not replace whole Performance Assessment.

Number of pages: 5
Brno, March 27th 2020
Validity till: March 26th 2025

TEXTILNÍ ZKUŠEBNÍ ÚSTAV, s.p. Oznámený subjekt 1021 TZÚ Notified body 1021 BRNO, CZ

RNDr. Pavel Malčík
Managing Director

1. Information about the producer and about the assessed product

1.1 Ordering firm

Zhenjiang Sanyang Decoration Materials Co., Ltd. – Beijing road, Jiangxin town, Dantu district, Zhenjiang City, Jiangsu Province, CHINA

1.2 Product description (according to the customer declaration)

Tested product: **Vinyl flooring – type Sanyang SPC flooring covering**

material composition: Polyvinylchloride (22 – 26 %), Calcium Carbonate (71 – 75 %), Stabilizer (1 – 5 %)

thickness: 3,2 mm – 6,5 mm

mass: 6,5 kg.m^{-2} – 13,0 kg.m^{-2} colour: brown / gray

Tested samples: **A) – 3,2 mm/ 6,5 kg.m^{-2}** **B) – 6,5 mm/ 13,0 kg,m^{-2}**

Sampling was carried out by producer.

1.3 Origin and final utilization of the product

The product – **Sanyang SPC** – has been specified as "the classified product of type". The classification applies to the following product and final application:

- flooring for full-area covering of floor declared for installation without use of adhesive. Testing was performed without use of adhesive.

Supplier declares no fire retardants or a limiting organic material were used.

2. Information about the initial testing

2.1 Technical specification

Testing and the assessment of the product are performed to show conformity assessment with the harmonized standard requirements (***system 3 of assessment and verification of constancy of performance – Regulation No. 305/2011, Annex V, Art. 1.4***).

EN 14041 Resilient, textile and laminate floor coverings – Essential characteristics
(art. 4.1 Reaction to fire, art. 4.3 Formaldehyde emission, art. 4.5 Slip resistance, art. 5.2 Type testing, Annex ZA).

2.2 Testing methods

Testing of the product was performed according to test methods:

- **EN 13501-1:2007 + A1:2009** Fire classification of construction products and building elements – Part 1: Classification using test data from reaction to fire tests.
  - **EN ISO 11925-2** Reaction to fire tests – Ignitability of building products subjected to direct impingement of flame – Part 2: Single-flame source test
  - **EN ISO 9239-1** Reaction to fire tests for floorings – Part 1: Determination of the burning behaviour using a radiant heat source
- **EN 717-1:2004** Wood-based panels – Determination of formaldehyde release – Part 1: Formaldehyde emission by the chamber method
- **EN 13893:2002** Resilient, laminate and textile floor coverings – Measurement of dynamic coefficient of friction on dry floor surfaces

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2.3 Testing results

Results of the testing and test conditions are specified in the Test Protocols:

- No. AZL 20/0233-02 (on 03.03.2020) issued by the accredited testing laboratory of TZÚ Brno - NB 1021,
- No. Pr-20-1.074 (on 27.03.2020) issued by the accredited testing laboratory of PAVUS Veselí nad Lužnicí,
- No. MVZ–A-2020-001343 (on 26.02.2020) issued by the accredited testing laboratory of Timber-wood research and development institute, Prague – VVÚD Prague.

These protocols are enclosed to the Performance assessment protocol.

The test of Formaldehyde emission was carried out in subcontractor laboratory VVÚD by modified procedure – Determination of formaldehyde in testing chamber.

Two representative samples were tested (A / B – the lowest sample / the thickest sample) for reaction to fire. Content of formaldehyde and slip resistance were tested on one sample.

2.3.1 Reaction to fire - results

The test results are shown in Table No.1.

Table No.1A) - testing results - reaction to fire (art. 4.1) sample A) 3,2 mm

Testing method	Characteristic	Value identified						Results	
		longitudinal direction			transverse direction			avg continual parameter (m)	parameter of fulfilment
EN ISO 11925-2 exposure – 15 s	Flame spread: $F_S \leq 150$ mm	yes	yes	yes	yes	yes	yes	(-)	yes
EN ISO 9239-1	Critical heat flux CHF ($kW.m^{-2}$)	≥11			≥11	-	-	10,9	(-)
	Smoke (% .minute)	75			89	-	-	82	

Table No.1B) - testing results - reaction to fire (art. 4.1) sample B) 6,5 mm

Testing method	Characteristic	Value identified				Results	
		longitudinal direction	transverse direction			avg. continual parameter (m)	parameter of fulfilment
EN ISO 9239-1	Critical heat flux CHF ($kW.m^{-2}$)	≥11	≥11	≥11	≥11	**≥11**	(-)
	Smoke (% .minute)	139	120	142	130	**137**	

Legend: (-) - not related

Notice: If a floor covering is produced with a range of different nominal thickness this needs to be considered when testing. The minimum and maximum thickness (one test each) is tested and complete set of tests for the worst case is carried out. The worst case determines the classification.

For tested scope – sample B) is considered as the worst case. Result is valid for whole scope.

2.3.2 Formaldehyde emission - results

The test results are shown in Table No.2.

Table No.2 - testing results - formaldehyde emission (art. 4.3)

Testing method	Characteristic	Requirement	Value identified	Evaluation
EN 717-1	Release of formaldehyde	class E1 … ≤ 0,124 mg/m³	0,007 mg HCHO/m³	S

2.3.3 Slip resistance - results

Table No.3 - testing result – slip resistance (EN 14041 – Art. 4.5)

Testing method	Characteristic	Requirement	Value identified	Evaluation
EN 13893	Dynamic coefficient of friction - μ	class DS … ≥ 0,30	0,38	S

Legend: S - satisfy

3. Classification of building product and area of direct application

3.1 Reaction to fire

Classification has been performed in compliance with the following articles of EN 13501-1 + A1:

- article 12.6 (requirements - class B_{fl}), article 12.9.2 (requirements – s1)

and with articles of EN 14041: article 4.1.4 (classification), Annex ZA, article ZA.4

Classification of building product

Testing method	Characteristic	Requirement	Value identified	Evaluation
EN ISO 11925-2 exposure – 15 s	Flame spread F_S	class B_{fl} $F_S \leq 150$ mm	Flame didn't spread more than 150 mm	S
EN ISO 9239-1	Critical heat flux (kW.m^{-2}) - *sample B)*	class B_{fl} ≥ 8 kW.m^{-2}	**≥11**	S
	Smoke (% .minute) - *sample B)*	class s1 ≤ 750 %.minute	**137**	S

Behaviour during burning	Smoke generation	
B_{fl}	s	1

Classification of the product according to reaction to fire:

On the basis of testing results the product shall be declared as class (thickness 9 mm): **B_{fl}**
Additional classification according to smoke generation: **s1**
Modification of floor covering classification according to reaction to fire: B_{fl} – s1

3.1.1 Area of application

The present classification applies only for the assessed product with the above specified parameters (see art. 1 of this protocol). The classification applies for the following final use of the product:

- underlying layer: the type testing results can be used if the density of practical underlying layer is min. 0,75 multiple of density of standard substrate (according to EN 13238, art. 5.1)
- method of laying: laying with and without use of adhesive.

3.2 Formaldehyde emission

The classification has been performed in compliance with the art. 4.3 of the standard EN 14041.

On the basis of initial testing result the product shall be declared as **formaldehyde class E1**.

3.3 Slip resistance

The classification has been performed in compliance with the art. 4.5 of the standard EN 14041. The classification is applicative for floor coverings that are used in dry and non-contaminated conditions.

On the basis of initial testing result the product shall be declared as **technical class DS**.

4. Regulations of utilizability

4.1 Limitation

The results of tests and performance assessment apply as long as the conditions remain the same. If the change occurs in the product, the raw material or supplier of the components, or the production process, which would change significantly one or more of the characteristics the tests shall be repeated for the appropriate characteristic.

This Performance assessment protocol is valid **till March 26th 2025** provided the technical parameters of product are not changed.

4.2 Utilizability

The producer can use this protocol for drawing up a declaration of conformity according to requirement of the standard EN 14041 (annex ZA - art. ZA.2.2.2) - **Declaration of Performance according to CPR**. This Declaration of Performance entitles to affix CE marking on the product (according to annex ZA - art. ZA.3 of the standard EN 14041).

5. List of documentation for the protocol elaboration

1. Application for testing and classification of the product No. 079/20.
2. Technical documentation of producer (product description).
3. Test protocol No. AZL 20/0233-02 (on 03.03.2020), issued by the accredited testing laboratory of TZÚ Brno.
4. Test protocol No. Pr-20-1.074 (on 27.03.2020), issued by the accredited testing laboratory of PAVUS Veselí nad Lužnicí.
5. Test report No. MVZ–A-2020-001343 (on 26.02.2020), issued by the accredited testing laboratory of VVÚD Prague.

Protocol issued by:

Tomkova

Lenka Tomková
Certification Body

Protocol checked by:

Svatava Horáčková
Head of Certification Department

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