# TEST REPORT

## INOVAR HYBRID SOLID VINYL TILES

Textilní zkušební ústav

### CE Test

Laboratory : Textilni zkusebni ustav, Czech Republic
Report no : 1021-CPR-17/112
Product : INOVAR Galaxy XL Hybrid Solid Vinyl Tiles
Results : Formaldehyde Emission - E1
Slip Resistance - Class DS
Reaction to Fire - Bfl - S1

# SOLID VINYL TILES TEST REPORT

**** This certificate has been modified to protect certain confidential information without altering the test result.*

INOVAR

Textilní zkušební ústav

**TEXTILNÍ ZKUŠEBNÍ ÚSTAV, s.p.**
**(Textile Testing Institute)**
**Notified Body No. 1021**
Václavská 6, 658 41 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 – 17/112**

| | |
|---|---|
| Product: | **** Hybrid Solid Vinyl Tiles*<br>Composition: Polyvinylchloride (25,7 – 33,3%), Calcium Carbonate (62,7 – 68,6%), Stabilizer (3,5 – 4,8%), PVC Lubricant (1,0 – 1,4%)<br>Thickness: 1,5 – 5,0 mm Mass per unit area: 2,55 – 9,85 kg/m$^2$<br>Colour: Grey/White |
| Producer: | **** Hybrid Solid Vinyl Tiles Manufacturer* |
| 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)<br>• **EN 717-1:2004 Wood-based panels – Determination of formaldehyde release – Part 1: Formaldehyde release by the chamber method**<br>• **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**<br>**Formaldehyde emission** **class E1**<br>**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.<br>This Protocol issued by Notified Body is only a part of the Performance Assessment Protocol and/but does not supply whole Performance Assessment Protocol. |

Number of pages: 5
Brno, April 19th 2017
Validity till: April 18th 2022

RNDr. Pavel Malčík
Managing Director

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## 1. Information about the producer and about the assessed product

### 1.1 Ordering firm

Producer: **** Hybrid Solid Vinyl Tiles Maunufacturer*

### 1.2 Product description (according to the customer declaration)

Tested product: **** Hybrid Solid Vinyl Tiles*

material composition: 25,7-33,3% Polyvinylchloride/ 62,7-68,6% Calcium Carbonate/ 3,5-4,8% Stabilizer/ 1,0-1,4% PVC Lubricant

thickness: 1,5-5,0 mm format: tiles

mass: 2,55-9,85 kg/m$^2$ colour: grey/ white

Tested samples: **A) – 1,5 mm/ 2,55 kg/m$^2$ B) – 5,0 mm/ 9,85 kg/m$^2$**

Sampling was carried out by producer.

### 1.3 Origin and final utilization of the product

The product – SPC flooring – Kingdom SPC Tile – 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 with/ without use of adhesive.

Testing was performed with use of adhesive (sample A) /without use of adhesive (sample B).

Producer 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

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- **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

## 2.3 Testing results

Results of the testing and test conditions are specified in the Test Protocol No. AZL 17/0403 (from 13.04.2017) issued by the accredited testing laboratory of TZÚ Brno - NB 1021, in the Test report No. MVZ–A-2017-000070 (from 18.04.2017) 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) 1,5 mm (with glue)

| Testing method | Characteristic | Value identified (longitudial direction) | | | Value identified (transverse direction) | | | Results | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Average 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 ($kW.m^{-2}$) | 11,3 | | | 11,3 | - | - | - | (-) |
| | Smoke (% .minute) | 36,0 | | | 30,0 | - | - | - | |

Table No.1B) - testing results - reaction to fire (art. 4.1) sample B) 5,0 mm (without glue)

| Testing method | Characteristic | Value identified (longitudial direction) | Value identified (transverse direction) | | | Results | |
|---|---|---|---|---|---|---|---|
| | | | | | | Average continual parameter (m) | Parameter of fulfilment |
| EN ISO 9239-1 | Critical heat flux CHF ($kW.m^{-2}$) | 11,3 | 11,3 | 11,3 | 11,3 | **11,3** | (-) |
| | Smoke (% .minute) | 96,0 | 36,0 | 82,5 | 90,0 | **69,5** | |

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<br>E1 … ≤ 0,124 mg/m$^3$<br>E2 … > 0,124 mg/m$^3$ | 0,003 mg HCHO/m$^3$ | S<br>- |

Legend: S - satisfy

### 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<br>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 $B_{fl}$<br>$F_S \leq 150$ mm | Flame didn't spread more than 150 mm | S |
| EN ISO 9239-1 | Critical heat flux (kW.m$^{-2}$) | class $B_{fl}$<br>≥ 8 kW.m$^{-2}$ | **11,3** | S |
| | Smoke (% .minute) | class s1<br>≤ 750 %.minute | **69,5** | 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**: **$B_{fl}$**
Additional classification according to smoke generation: s1
**Modification of floor covering classification according to reaction to fire:** **$B_{fl}$ – s1**

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**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 18th April 2022** 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 the producer 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. 112/17.
2. Technical documentation of producer (product description).
3. Test protocol No. AZL 17/0403 (from 13.04.2017), issued by the accredited testing laboratory of TZÚ Brno.
4. Test report No. MVZ-A-2017-000070 (from 18.04.2017, issued by the accredited testing laboratory of VVÚD Prague.

Protocol issued by:

Ing. Svatava Horáčková
Head of certification department

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