INSTITUTE FOR TESTING AND CERTIFICATION, INC.
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TEST REPORT

Reference No. 75 35 01821/ 2020

Applicant:	**CFL Flooring (China) Co., Ltd.** **No 111 Changjiang Rd. – Jiashan Development area – 314100 Jiaxing, P. R. China**
Product:	**Rigid LVT with SPC core included 1.0 mm EVA backing, specification: (1) 1213x144x4 mm and (2) 1213 x 176 x 6.5 mm**
Manufacturer:	CFL Flooring (China) Co., Ltd. No 111 Changjiang Rd. – Jiashan Development area – 314100 Jiaxing, P. R. China

Elaborated by: Milan Kovář

Issued on: 7th February 2020

NOTIFIED BODY 1023 INSTITUTE FOR TESTING AND CERTIFICATION 3

Jiří Heš
Representative of Notified Body No. 1023

1. Introduction

This report was elaborated on the basis of the application *No. 753501821, registered on 18/12/2019* 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 (testing) was carried out by the notified body (the notified testing 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 not glued to the standard substrate/
  - classification according to ČSN EN 13501-1
- Formaldehyde emission according to ITC test regulation ITC A-19-115 (ČSN EN 717-1) (Rigid LVT flooring-with 6.5 mm thickness, only)

2.3 Product specification

PVC heterogeneous floor covering tiles.
Composition :

- Total thickness: 4.0 mm – UV layer - epoxy acrylic resin+PU(0.03 mm), wear layer (0.30 mm – PVC), print film (0.07 mm), SPC core layer (2.70 mm – PVC+calcium carbonate), backing (EVA kopolymer-1.00 mm)
- Total thickness: 6.5 mm – UV layer - epoxy acrylic resin+PU(0.03 mm), wear layer (0.70 mm – PVC), print film (0.07 mm), SPC core layer (4.80 mm – PVC+calcium carbonate), backing (EVA kopolymer-1.00 mm)

Laying way: loose

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:

- Rigid LVT flooring with SPC core included 1.0 mm EVA backing - 18 pcs of tiles (1213 x 144 x 4) mm
- Rigid LVT flooring with SPC core included 1.0 mm EVA backing - 11 pcs of tiles (1213 x 176 x 6.5) mm and 6 pcs of tiles (1213 x 176 x 6.5) mm (packed into PE foil)

The test samples were registered under the registration numbers 75 35 01821/1 and 75 35 01821/2 on 02/01/2020.

Photos of the test samples:





2.5 Place and date of testing

- Institut pro testování a certifikaci (ITC), a.s., NB 1023, accredited laboratory No. 1004 Zlín (January-February 2020)
- Institut pro testování a certifikaci (ITC), a.s. CSI division - Centrum stavebního inženýrství Prague, Accredited test laboratory No.1007.4 (January 2020)

2.6 Test results

2.6.1 Ignitability results

Table 1– Ignitability test results - total thickness: 4.0 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 - total thickness: 6.5 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, Yes
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

2.6.2 Results of burning behaviour using a radiant heat source

Table 3 - Results of burning behaviour using a radiant heat source – total thickness: 4.0 mm

Characteristic	Measuring unit	Crosswise direction measurement	Lengthwise direction measurement (mean value)
Maximum distance of flame spread	mm	210	226.7
Critical heat flux (CHF)	kW/m²	8.9	**8.6**
Distance of flame spread at 10th min.	mm	210	220.0
HF-10	kW/m²	8.9	8.7
Distance of flame spread at 20th min.	mm	(-)	(-)
HF-20	kW/m²	(-)	(-)
Distance of flame spread at 30th min.	mm	(-)	(-)
HF-30	kW/m²	(-)	(-)
Maximum light attenuation	%	48.6	53.2
Integrated smoke value	% x min	310.6	**356.6**

Table 4 - Results of burning behaviour using a radiant heat source - total thickness: 6.5 mm

Characteristic	Measuring unit	Crosswise direction measurement	Lengthwise direction measurement (mean value)
Maximum distance of flame spread	mm	210	226.7
Critical heat flux (CHF)	kW/m²	8.9	**8.6**
Distance of flame spread at 10th min.	mm	210	220.0
HF-10	kW/m²	8.9	8.7
Distance of flame spread at 20th min.	mm	(-)	(-)
HF-20	kW/m²	(-)	(-)
Distance of flame spread at 30th min.	mm	(-)	(-)
HF-30	kW/m²	(-)	(-)
Maximum light attenuation	%	62.4	65.7
Integrated smoke value	% x min	378.8	**398.7**

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
Rigid LVT flooring with SPC core included 1.0 mm EVA backing, specification: 1213x144x4 mm	B_{fl}	s1	**B_{fl} – s1**
Rigid LVT flooring with SPC core included 1.0 mm EVA backing, specification: 1213 x 176 x 6.5 mm	B_{fl}	s1	**B_{fl} – s1**

2.6.4 Formaldehyde emission result

Table 6 – Results of the formaldehyde emission

Product	Measuring unit	Test result (class)
Rigid LVT flooring with SPC core included 1.0 mm EVA backing, specification: 1213 x 176 x 6.5 mm	$mg.m^{-3}$	< 0.013[x)] (E1)

Remark: [x)] - detection limit of the method

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. 753501821 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. 753501821-01, elaborated by ITC a.s., accredited laboratory No. 1004, in Zlín, on 15/01/2020
- Test Reports, references No. 20/P007 and 20/P008 , elaborated by Institut pro testování a certifikaci (ITC), a.s. CSI division - Centrum stavebního inženýrství Prague, Accredited test laboratory No.1007.4 on 31/01/2020
- Test Report of accredited laboratory, reference No. 753501821-03, elaborated by , on 07/02/2020
- Classification Report using Results of Reaction to Fire No. 75 35 01821K/2020, elaborated by ITC, a.s. Zlín, on 31/01/2020