TECHNICKÝ A ZKUŠEBNÍ ÚSTAV STAVEBNÍ PRAHA, s.p.
Technical and Test Institute for Constructions Prague
Akreditovaná zkušební laboratoř, Autorizovaná osoba, Certifikační orgán, Inspekční orgán
Accredited Test Laboratory, Authorised Body, Certification Body, Inspection Body

VÁŠ DOPIS / ZNAČKY / ZE DNE	*NAŠE ZNAČKA*	*VYŘIZUJE / E-mail*	*Praha*
	01/15/2012/CL	**Ing. Lucie Cinařová** **cinarova@tzus.cz**	**5/1/2012**

Re: Confirmation of CE Certification Process (Floor Coverings)

Herein we confirm that the EC applications and the test specimens of the manufacturers have been submitted to TZUS as below ;

- Angelwood Click'nLoc PVC Floor (0.5/0.5T)

The applications were already registered on 16th November 2011 under contracts No. Z 010 11 0400 and Z 010 11 0401 and Initial type test will be performed before 17th February 2012. The products information with the specification has been submitted and is currently under review by notified body (TZUS - notified body number 1020).

If there are no problems with the review and the Initial type test results, the ITT report and Test reports for the floor covering will be issued before 17th February 2012.

with best regards,

Ing. Iveta Jiroutová
Managing Director of the branch Prague

TECHNICKÝ A ZKUŠEBNÍ ÚSTAV STAVEBNÍ PRAHA, s.p. Pobočka Praha IČ 00015679

Technický a zkušební ústav stavební Praha, s. p.
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Prosecká 811/76a
190 00 Praha 9
Česká republika

Technical and Test Institute for Construction
Branch Praha
Prosecká 811/76a
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ECO-INSTITUT

ÜBEREINSTIMMUNGSZERTIFIKAT

Nr. 44199

Hiermit wird gemäß §27 Abs. 1 der Bauordnung des Landes NRW bestätigt, dass die Bauprodukte der Gruppe

Angelwood Click'nLoc

des Herstellers / Herstellwerks

REPUBLIK KOREA

nach den Ergebnissen der werkseigenen Produktionskontrolle und der von der bauaufsichtlich anerkannten Überwachungsstelle

eco-INSTITUT GmbH, Sachsenring 69, 50677 Köln

durchgeführten Fremdüberwachung den Bestimmungen der allgemeinen bauaufsichtlichen Zulassung/en

Z-156.603-1377 vom 29.04.2014

entsprechen.

Der Hersteller ist somit berechtigt, das Bauprodukt mit dem Übereinstimmungszeichen (Ü-Zeichen) zu kennzeichnen.

Köln, 12.09.2014

eco-INSTITUT GmbH

Dr. Frank Kuebart
Leiter der Überwachungs- und Zertifizierungsstelle

DAkkS Deutsche Akkreditierungsstelle D-PL-14117-01-00

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TECHNICKÝ A ZKUŠEBNÍ ÚSTAV STAVEBNÍ PRAHA, s.p.
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Accredited Testing Laboratory, Authorized Body, Certification Body, Notified Body, Inspection Body
Prosecká 811/76a, 190 00 Praha 9 - Prosek, Czech Republic

Authorized Body 204
Notified Body 1020
Branch 0100 - Praha

REPORT

on the initial type tests: reaction to fire, emission of formaldehyde

pursuant to Article 5 Clause 1 b) of the Czech Republic Government Decree No. 190/2002 Coll. (system of conformity assessment 3), and in compliance with the Council Directive 89/106/EEC of 21 December 1988 on the approximation of laws, regulations and administrative provisions of the Member States relating to construction products (the Construction Products Directive or CPD), as later amended

No. 1020 - CPD – 010029479

Trade name:

Resilient floor coverings according to EN 14041:2004/AC:2006

Type/variation: Angelwood Click'nLoc PVC Floor

Number of Report pages including title page: 4 Number of Annexes: 3
This Report is only a part of the complete initial type-testing report.

The person taking responsibility for the content of this report:

Ing. Lucie Cinaťová
Head Assessor

The person taking responsibility for correctness of this report:

Stamp of Notified body 1020

Praha, February 16, 2012

TECHNICKÝ A ZKUŠEBNÍ ÚSTAV STAVEBNÍ PRAHA, s.p. NOTIFIKOVANÁ OSOBA AO 204 1020 ÚNMZ 1

Ing. Iveta Jiroutová
Deputy Manager of the Notified Body 1020

1. DETAILS OF CLASSIFIED PRODUCT

Nature and end use application:

Classification of the product is valid for the following end use application:

Floor covering

Description:

The product Angelwood Click'nLoc is fully described in the test reports in support of the classification listed in clause 2.

2. TEST REPORTS AND TEST RESULTS IN SUPPORT OF THIS CLASSIFICATION

Test reports

Name of laboratory	Name of sponsor	Test report ref. no.	Test method
CSI a.s., Fire technical laboratory	TZÚS Praha, s.p.	15838 – 1/2	ČSN EN ISO 11925-2
		15838 – 2/2	ČSN EN ISO 9239-1

Measured values

Test method	Parameter	Number of test	Results	
			Continuous parameter mean (m)	Compliance parameters
ČSN EN ISO 11925-2 surface flame attack	*Fs* ≤ 150 mm	6	(-)	yes
ČSN EN ISO 9239-1	CHF (kW/m^2) Smoke (% × min)	3 3	8,8 566,3	(-) (-)

(-): not applicable

Test results

Test method	Parameter	Mean value	Criterion compliance
ČSN EN ISO 11925-2	Fs ≤ 150 mm (1)	yes	yes (B_{fl} to D_{fl})

(1): until 20. second from the start of exposition

Test results

Test method	Parameter	Mean value	Criterion compliance
ČSN EN ISO 9239-1	CHF (kW/m^2) Smoke (% x min)	8,8 566,3	≥ 8,0 (B_{fl}) ≤ 750 (s1)

3. CLASSIFICATION AND DIRECT FIELD OF APPLICATION

Reference and direct field of application

This classification has been carried out in accordance with the clauses 12.6 and 12.9.2 of ČSN EN 13501-1+A1:2010.

Classification

The product in relation to its reaction to fire behaviour is classified:

B_{fl}

The additional classification in relation to smoke production is:

s1

The format of the reaction to fire classification is:

Fire behaviour		Smoke production	
B_{fl}	-	s	1

Reaction to fire classification: B_{fl}-s1

Field of application

This classification is valid for the following end-use conditions:

- substrate: products of reaction to fire class $A1_{fl}$ or $A2_{fl}$

4. LIMITATIONS

Restrictions

This classification report is valid until 10th February 2017, provided that the technical specifications of the product will not be changed.

Warning

This document does not represent type approval or certification of the product.

Prepared:

Jiří Socha

POŽÁRNĚ TECHNICKÁ LABORATOŘ ZKUŠEBNÍ LABORATOŘ PTL CSI CSI a.s. Praha

Reviewed:

Vít Slaboch
head of laboratory

1 Specification of tested subject

Resilient floor coverings Angelwood Click'nLoc are used as floor coverings into the interiors of buildings.

Technical specification:

- EN 14041: 2004/AC:2006 Resilient, textile and laminate floor coverings - Essential characteristics

2 Sampling

- Place of sampling: dispatch store of the manufacturer
- Sampler: Angelwood
- Sampling method: original undisturbed packing
- Transport mode: DHL
- Date of the taking over: 23.11.2011
- Sample registration numbers: 400/11A, 400/11B

3 Test results

3.1 Reaction to fire

Determination according to test methods:

- ČSN EN ISO 9239-1:2003 Reaction to fire tests for floorings - Part 1: Determination of the burning behaviour using a radiant heat source
- ČSN EN ISO 11925-2:2010 Reaction to fire tests - Ignitability of building products subjected to direct impingement of flame - Part 2: Single-flame source test

Classification according to:

- ČSN EN 13501-1+A1:2010 Fire classification of construction products and building elements - Part 1: Classification using test data from reaction to fire tests

Tests were carried out by: Vít Slaboch, Centrum stavebního inženýrství, a.s.; Pražská 16, 10200, Praha 10, Accr.T.Lab. No. 1007.7

- Test Report No.15837 – 1/2 on Fire and Technical Characteristics, dated 2012-01-30, issued by CSI, a.s.; Fire technical laboratory, Authorized Body AO 212
- Test Report No.15837 – 2/2 on Fire and Technical Characteristics, dated 2012-02-07, issued by CSI, a.s.; Fire technical laboratory, Authorized Body AO 212
- Test Report No.15838 – 1/2 on Fire and Technical Characteristics, dated 2012-01-30, issued by CSI, a.s.; Fire technical laboratory, Authorized Body AO 212
- Test Report No.15838 – 2/2 on Fire and Technical Characteristics, dated 2012-02-07, issued by CSI, a.s.; Fire technical laboratory, Authorized Body AO 212

Date of the test ending: 1.02.2012

a) Daejin Decoria

Surface weight: 4800 g/m^2

Thickness: 3,0 mm

Reaction-to-fire classification report: PK-12-013

Testing Procedure	Parameter	Number of tests	Results	
			Average continuous parameter	Compliance parameter
ČSN EN ISO 9239-1	Critical heat flow CHF (kW/m^2)	3	8,6	$B_{fl} \geq 8,0$
	Darkening-by-smoke integral S(% . min)	3	621,4	s1 ≤ 750
ČSN EN ISO 11925-2	Propagation of flame (mm)	6	0	≤ 150 to 20 s

Reaction to fire class: **B_{fl}**
Classification in relation to smoke production: **s1**

Reaction to fire	**B_{fl}-s1**

b) Decoria Click

Surface weight: 8260 g/m^2

Thickness: 5,0 mm

Reaction-to-fire classification report : PK-12-014

Testing Procedure	Parameter	Number of tests	Results	
			Average continuous parameter	Compliance parameter
ČSN EN ISO 9239-1	Critical heat flow CHF (kW/m^2)	3	8,8	$B_{fl} \geq 8,0$
	Darkening-by-smoke integral S(% . min)	3	566,3	s1 ≤ 750
ČSN EN ISO 11925-2	Propagation of flame (mm)	6	0	≤ 150 to 20 s

Reaction to fire class: B_{fl}
Classification in relation to smoke production: **s1**

Reaction to fire	**B_{fl}-s1**

3.2 Emission of formaldehyde

The evaluation was performed without testing under the condition that no formaldehyde was added during the manufacturing process of all floor coverings (see Art. 1 of this report) – according to Art. 4.3 of the standard EN 14041

Classification	**E1**	Written declaration of the manufacturer*

*the manufacturer submitted the composition table of the products to the Notified Body

4 Annexes

- Classification of reaction to fire in accordance with 13501-1+A1:2010, No. PK-12-013, dated 2012-02-10, issued by CSI, a.s.; Fire technical laboratory, Authorized Body AO 212
- Classification of reaction to fire in accordance with 13501-1+A1:2010, No. PK-12-014, dated 2012-02-10, issued by CSI, a.s.; Fire technical laboratory, Authorized Body AO 212
- Declaration of Producer (formaldehyde) - Daejin CO., LTD., dated 14.12.2011

ANNEX No. 1

Centrum stavebního inženýrství a.s.

Fire Technical Laboratory

AUTHORIZED BODY No. 212

NOTIFIED BODY No. 1390

CLASSIFICATION OF REACTION TO FIRE IN ACCORDANCE WITH ČSN EN 13501-1+A1:2010

Applicant: Technický a zkušební ústav stavební Praha, s.p.
Prosecká 811/76a
190 00 Praha 9
Czech republic

Prepared by: Centrum stavebního inženýrství a.s.
Pražská 16
102 00 Praha 10
Czech republic

Product name: Angelwood Click'nLoc PVC Floor (0.5/0.5T)

Classification report No.: PK-12-013

Issue number: 1/2

Date of issue: 10th February 2012

This classification report consists of 4 pages and may only be used or reproduced in its entirety.

Address:
PRAŽSKÁ 16, 102 00 PRAHA 10, Czech Republic, E mail: csias@csias.cz, http://www.csias.cz
Reg. No. 45274860, VAT No. CZ45274860. The Company is registered in the Commercial Register administered by the Municipal Court of Prague (section B, inset 1595).
Fire Technical Laboratory, E-mail: ptl@csias.cz
Phone: +420 281 017 111, Fax: +420 281 017 455

1. DETAILS OF CLASSIFIED PRODUCT

Nature and end use application:

Classification of the product is valid for the following end use application:

Floor covering

Description:

The product Angelwood Click'nLoc is fully described in the test reports in support of the classification listed in clause 2.

2. TEST REPORTS AND TEST RESULTS IN SUPPORT OF THIS CLASSIFICATION

Test reports

Name of laboratory	Name of sponsor	Test report ref. no.	Test method
CSI a.s., Fire technical laboratory	TZÚS Praha, s.p.	15837 – 1/2	ČSN EN ISO 11925-2
		15837 – 2/2	ČSN EN ISO 9239-1

Measured values

Test method	Parameter	Number of test	Results	
			Continuous parameter mean (m)	Compliance parameters
ČSN EN ISO 11925-2 surface flame attack	*Fs* ≤ 150 mm	6	(-)	yes
ČSN EN ISO 9239-1	CHF (kW/m^2) Smoke (% × min)	3 3	8,6 621,4	(-) (-)

(-): not applicable

Test results

Test method	Parameter	Mean value	Criterion compliance
ČSN EN ISO 11925-2	Fs ≤ 150 mm (1)	yes	yes (B_{fl} to D_{fl})

(1): until 20. second from the start of exposition

Test results

Test method	Parameter	Mean value	Criterion compliance
ČSN EN ISO 9239-1	CHF (kW/m^2) Smoke (% x min)	8,6 621,4	≥ 8,0 (B_{fl}) ≤ 750 (s1)

3. CLASSIFICATION AND DIRECT FIELD OF APPLICATION

Reference and direct field of application

This classification has been carried out in accordance with the clauses 12.6 and 12.9.2 of ČSN EN 13501-1+A1:2010.

Classification

The product in relation to its reaction to fire behaviour is classified:

B_{fl}

The additional classification in relation to smoke production is:

s1

The format of the reaction to fire classification is:

Fire behaviour		Smoke production	
B_{fl}	-	s	1

Reaction to fire classification: B_{fl}-s1

Field of application

This classification is valid for the following end-use conditions:

- substrate: products of reaction to fire class $A1_{fl}$ or $A2_{fl}$
- fixing method: glued with polyurethane or dispersion adhesives

4. LIMITATIONS

Restrictions

This classification report is valid until 10th February 2017, provided that the technical specifications of the product will not be changed.

Warning

This document does not represent type approval or certification of the product.

Prepared:

Jiří Socha

POŽÁRNĚ TECHNICKÁ LABORATOŘ ZKUŠEBNÍ LABORATOŘ PTL CSI a.s. Praha

Reviewed:

Vít Slaboch
head of laboratory

ANNEX No.2

Centrum stavebního inženýrství a.s.

Fire Technical Laboratory

AUTHORIZED BODY No. 212

NOTIFIED BODY No. 1390

CLASSIFICATION OF REACTION TO FIRE IN ACCORDANCE WITH ČSN EN 13501-1+A1:2010

Applicant: Technický a zkušební ústav stavební Praha, s.p.
Prosecká 811/76a
190 00 Praha 9
Czech republic

Prepared by: Centrum stavebního inženýrství a.s.
Pražská 16
102 00 Praha 10
Czech republic

Product name: Angelwood Click'nLoc PVC Floor (0.5/0.5T)

Classification report No.: PK-12-014

Issue number: 1/2

Date of issue: 10th February 2012

This classification report consists of 4 pages and may only be used or reproduced in its entirety.

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Reg. No. 45274860, VAT No. CZ45274860. The Company is registered in the Commercial Register administered by the Municipal Court of Prague (section B, inset 1595).
Fire Technical Laboratory, E-mail: ptl@csias.cz
Phone: +420 281 017 111, Fax: +420 281 017 455

***SCS Global Services** does hereby certify that an independent assessment has been conducted on behalf of:*

For the following product(s):

Vinyl Tile:

PVC Floor Covering Angelwood Click'nLoc

floor score

CERTIFIED BY SCS Global Services

This product meets all of the necessary qualifications to be certified for the following claim:

FloorScore®

Indoor Air Quality Certified to SCS-EC10.3-2014

Conforms to the CDPH/EHLB Standard Method v1.1-2010 (effective January 1, 2012) for the school classroom and private office parameters when modeled as Flooring.

Measured Concentration of Total Volatile Organic Compounds (TVOC): Less than/equal to 0.5 mg/m^3 (in compliance with CDPH/EHLB Standard Method v1.1-2010)

ANSI

ANSI ACCREDITED PROGRAM
PRODUCT CERTIFICATION
#0821

Registration # SCS-FS-03041

Valid from: July 1, 2015 to May 31, 2016

SCS Global Services is currently the only certification body approved by the Resilient Floor Covering Institute (RFCI) to provide FloorScore® product certification; certified products are only listed on the SCS Green Products Guide, http://www.scsglobalservices.com/certified-green-products-guide.

SCSglobal SERVICES

Robert J. Hrubes, Ph.D., Executive Vice President
SCS Global Services
2000 Powell Street, Ste. 600, Emeryville, CA 94608 USA

INSTITUT PRO TESTOVÁNÍ A CERTIFIKACI, a. s.
tř. T. Bati 299, 764 21 Zlín, Czech Republic
Accredited Testing Laboratory No. 1004

Testing laboratory * Calibration laboratory * Product certification body * Quality management systems certification body
Inspection body * Authorized body * Notified body
tel.:+420 577 523 657 fax: +420 577 523 657 e-mail:mordeltova@itczlin.cz www.itczlin.cz

ACCREDITED LABORATORY TEST REPORT ref.No. 412601278/2

Client:	Technical and Test Institute for Constructions Prague Company registration number: 00015679
Address:	Prosecká 811/76a, 190 00 Prague 9, Czech Republic
Sample:	PVC Floor covering: Angelwood Click'nLoc (0.5/5.0T)
Work requested:	Measurement of dynamic coefficient of friction on dry floor surface
Sample received on:	12th January 2012
Report elaborated by:	Irena Čaňová
Place and date of issue:	Zlín, 19th January 2012

AKREDITOVANÁ LABORATOŘ 1004 Institut pro testování a certifikaci, a.s. Zlín

.....
Doc. Dipl. Ing. Vladimír Klepal, CSc.
Head of Accredited Testing Laboratory

Sample description and identification:
Product sample – Sample No. 2 – PVC Floor covering: Angelwood Click'nLoc (0.5/5.0T) (contract No. Z 010 11 0400) – was registered under No. 1278-2/12.

Sampling method used:
The sample supplied by the client, taken by the laboratory staff member using the random selection method - non-accredited sampling, etc.

Work requested:
Measurement of dynamic coefficient of friction on dry floor surface according to ČSN EN 13893

Testing method used:
Measurement of dynamic coefficient of friction on dry floor surface according to ČSN EN 13893

Test equipment used:
Test machine for testing of slip resistance

Conditioning:
Time: 48 h.; temperature: (23±2)°C, relative humidity: (50±5) %

Test conditions:
Temperature: (23±2)°C, relative humidity: (50±5) %, test cycle consists: no less than of 5 measurements in one test condition, expression of result: arithmetic mean

Testing laboratory:
The tests were made by the Testing Laboratory No. 1004 - ITC Zlín – detached workplace No. 3 – Testing laboratory of shoes and personal protective equipments, SVIT area, building No.34, 762 17 Zlín.

Tested by:
Dipl.Ing. Marie Ordeltová on 17th January 2012

Test results:
The test results are given in the following table:

Property measured	Direction of production	Measurements obtained						Data of measurement uncertainty [2]
		the measured values					arithmetic mean	
Dynamic coefficient of friction [1]	direction A	0,49	0,48	0,49	0,48	0,47	**0,48**	0,01
	direction B	0,58	0,57	0,59	0,58	0,58	0,58	0,01

Legende:
[1] coefficient of friction is ratio of the frictional force divided by the normal force, unit is 1
[2] expressed as an extended measurement uncertainty for extension coefficient k=2

Dipl. Ing. Marie Ordeltová
Head of testing laboratory of shoes and PPE

日本工業規格表示認証書

認証番号
CRKR07008

株式会社 大進 殿

工業標準化法第23条第1項の規定により日本工業規格の表示について下記のように認証する。

(認　証)平成 20年 2月 1日
(再交付)平成 26年 2月 1日

(外国登録認証機関 登録番号000701)

韓国化学融合試験研究院 院長 崔 炯 基

記

認証取得者の氏名又は名称及び住所	株式会社 大進 大韓民国 忠清南道 牙山市 陰峰面 燕巖 ユルグム路 176-10
認証に係る日本工業規格の番号及び日本工業規格に規定されている場合は種類又は等級	[redacted] 5705
鉱工業品又は加工技術の名称	ビニル系床材
認証の区分	認証の区分 : 床タイル 認証の範囲 : 接着形 接着形 複層ビニル床タイル FT
認証に係るすべての工場又は事業場の名称及び所在地	株式会社 大進 大韓民国 忠清南道 牙山市 陰峰面 燕巖 ユルグム路 176-10
認証有効期間	2017年 1月 31日