

# FOREST AND WOOD PRODUCTS RESEARCH AND DEVELOPMENT INSTITUTE

"Meža un koksnes produktu pētniecības un attīstības institūts" SIA

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# Classification of reaction to fire performance in accordance with EN 13501-1:2007+A1:2009

Issue number: K37/2017

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Sponsor: TreeTops A/S.

Address: Egtvedvej 104, 6000 Kolding, Denmark.

Reg. No. 33749368.

Owner of classification report: TreeTops A/S.

Manufacturer: TreeTops A/S.

**Prepared by**: SIA "Meža un koksnes produktu pētniecības un attīstības institūts" (Forest and Wood Products Research and Development Institute Ltd).

Product name: Wood-plastic composite (WPC) decking Kirkedal SOLID.

Laboratory involved in testing is accredited by the Latvian National Accreditation Bureau (LATAK) according to the standard LVS EN ISO/IEC 17025 under the terms of Latvian legislation with reg. No. T-316. Laboratory is a notified body with reg. No. NB 2040 under construction product regulation No. 305/2011.

Classification report refers only to these test objects. This classification report may not be reproduced otherwise than in full text, excepted with the prior written approval of the Forest and Wood Products Research and Development Institute



#### 1. Introduction

This classification report defines the reaction to fire classification assigned to WPC decking Kirkedal SOLID in accordance with the procedures given in EN 13501-1:2007+A1:2009.

## 2. Details of classified product

#### 2.1. General

Wood-plastic composite (WPC) decking Kirkedal SOLID is defined as composites made from cellulose-based materials and thermoplastics (usually called wood-polymer composites (WPC) or natural fibre composites (NFC)) according standard EN 15534-1:2014.

#### 2.2. Product description

- Product name: Wood-plastic composite (WPC) decking Kirkedal SOLID.
- Manufacturer: TreeTops A/S.
- Materials used for manufacturing:
  - wooden dust;
  - o plastic;
  - o coupling agents;
  - o color batches;
  - o lubricant.
- Board dimensions: 130 × 4000 × 18 mm.
- Product weight: 3.3 kg/m.

#### 3. Test reports and test results in support of classification

#### 3.1. Test reports

Name of laboratory	Name of sponsor	Test reports	Test method
SIA "Meža un koksnes produktu pētniecības un attīstības institūts" Testing Laboratory	TreeTops A/S.	2549-1/2017	EN ISO 9239-1:2010
SIA " Meža un koksnes produktu pētniecības un attīstības institūts" Testing Laboratory	TreeTops A/S.	2549-2/2017	EN ISO 11925-2:2010



#### 3.2. Test results

Test method	Parameter	Number	Result	ts
		of tests	Continuous parameter mean	Compliance parameters
EN ISO 9239-1: 2010 Test duration (30 min).	Critical heat flux CHF (kW/m²)	5	-	(-)
	Heat flux at 30 <sup>th</sup> min HF-30		5.3	Compliant
	Integrated smoke value TIS (%. min)		50.5	Compliant
EN ISO 11925-2:2010  Exposure time 15 s.	Flame spread (Fs)	12	Less than 150 mm	Compliant
Test duration 20 s.	Ignition of filter paper		no	(-)
	Flaming droplets/particles		no	(-)
(-) not applicable				

### 4. Classification and field of application

#### 4.1. Reference of classification

This classification has been carried out in accordance with clause 12 of EN 13501-1:2007+A1:2009.

#### 4.2. Classification

WPC decking Kirkedal SOLID in relation to its reaction to fire behaviour is classified:

 $C_{fl}$ 

The additional classification in relation to smoke production is:

s1

The format of the reaction to fire classification for floorings is:

Fire behaviour		Smoke pro	duction
C <sub>fl</sub>	-	S	1

Reaction to fire classification: C<sub>fl</sub>-s1



#### 4.3. Field of application

4.3.1 This classification is valid for the following product end use applications:

Product primary is intended to use as decking boards.

4.3.2. This classification is also valid for following product parameters:

Thickness of product:

valid for product thickness as tested.

Composition of product:

valid only for product composition as tested.

Product weight:

valid only for product weight as tested.

Product sides:

valid for both sides of board.

4.3.3. Classification valid for installation parameters:

Mounting:

classification valid only for product application directly on substrates

without air cavity.

Substrates:

product reaction to fire performance determined on fibre cement board substrate and classification is valid for product mounting on

wood based substrates and substrates of reaction to fire class A2-s1-

d0 and A1.

#### 5. Limitations.

- 5.1. No restrictions on the duration of validity of this classification report as long as the product specifications remain unchanged.
- 5.2. This document does not represent type approval or certification of the product.

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