

# ***Reaction to fire classification report No. 20931C***

## **Owner of the classification report**

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## **Introduction**

This classification report defines the classification assigned to the product '**WEO60**' in accordance with the procedures given in the standard EN 13501-1:2018: Fire classification of construction products and building elements - Part 1: classification using data from reaction to fire tests.

**This classification report consists of 7 pages and may only be used or reproduced in its entirety**

## 1. DETAILS OF CLASSIFIED PRODUCT

### a) General

The product **WEO** is defined as a 'Co-extruded wood-plastic-composite WPC cladding'.

Its classification is valid for the following end use application(s):

Used as co-extruded wood-plastic-composite WPC cladding.

### b) Product description

*This description is based on information given by the sponsor.*

Nominal values (1)	
<b>WEO60</b>	
Type of product	Wood-plastic composite (WPC) cladding. The core of the wood-plastic composite consists of 60 % wood (4) and 40 % high-density polyethylene (HDPE) fillers + additives. The core is covered on all sides with a coextruded plastic cap layer. The profile has got a tongue- and groove connection.
Manufacturer	Fiberdeck SAS
Reference	WEO60- ref 1081
Ratio wood / HDPE	60 % wood ; 40 % HDPE fillers and additives
Profiling/shape	The technical drawing is visible in Figure 1.
Profile width (mm)	169
Total thickness (mm)	33
<i>Thickness core</i>	3,6
<i>Thickness coextruded layer (cap)</i>	0,7
Total surface mass (g/m <sup>2</sup> - theoretically)	14870
Use of fire retardants	Yes (4)
Amount of fire retardants (weight %)	33
Pigmentation	
<i>Type of pigmentation</i>	Multichromatic
<i>Amount of pigmentation (%)</i>	0,12
<i>Colour</i>	Grey slate
Density (kg/m <sup>3</sup> )	
<i>Core</i>	1349
<i>Coextruded PVC layer (cap)</i>	975
Surface structure	
<i>Front side (top)</i>	Woodgrain texture. (see Figure 2)
<i>Back side (bottom)</i>	Rough-grooved .(see Figure 3)

(1) Based on the information given by the sponsor

(2) Values verified by the laboratory

(3) Unverifiable by the laboratory

(4) Known by the laboratory

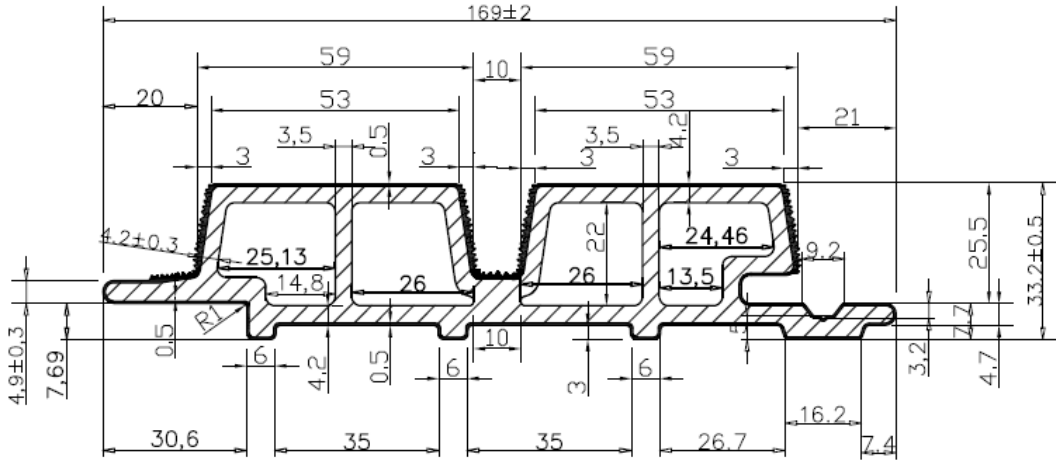


Figure 1: Profile of the material

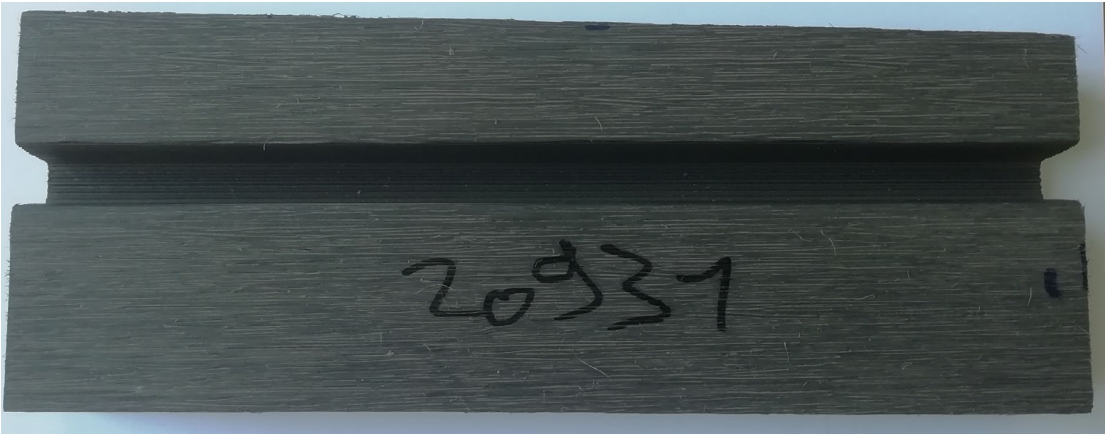


Figure 2: Woodgrain textured front side of the material (exposed to the pilot flame)



Figure 3: Rough-grooved back side of the material

More details (e.g. mounting and fixing) are available in the test report(s) in support of this classification (§2a).

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

### a) Test reports (and EXAP reports)

Name of the laboratory	Name of the sponsor	Test report ref. No. and test date	Test method and date
WFRGENT nv Ghent, Belgium	FIBERDECK	20931A: 05/02/2021	EN ISO 11925-2:2020
WFRGENT nv Ghent, Belgium	FIBERDECK	20913B: 12/02/2021	EN 13823:2020

### b) Test results

Test method	Parameter	Number of tests	Results		Criteria for Class D-s1,d0	
			Continuous parameters Mean	Compliance parameters	Continuous parameters	Compliance parameters
<b>EN ISO 11925-2 (*) (1)</b> 30 s flame application: <u>Surface exposure</u> - front side <u>Edge exposure</u> - mid point 1,5 mm behind surface	$F_s \leq 150$ mm Ignition filter paper	6	(-)	Yes	(-)	Yes
	$F_s \leq 150$ mm Ignition filter paper	6	(-)	No	(-)	No
	$F_s \leq 150$ mm Ignition filter paper	6	(-)	Yes	(-)	Yes
	$F_s \leq 150$ mm Ignition filter paper	6	(-)	No	(-)	No

(\*) The material didn't melt nor pull away from the pilot burner.

(1) Based on the results obtained in test report No. 20931A: WEO60 33 mm.

Test method	Parameter	Number of tests	Results		Criteria for Class D-s1,d0		
			Continuous parameters Mean	Compliance parameters	Continuous parameters	Compliance parameters	
EN 13823 (2)	FIGRA <sub>0,2 MJ</sub> (W/s)	3	461	(-)	(-)	(-)	
	FIGRA <sub>0,4 MJ</sub> (W/s)		461	(-)	≤ 750	(-)	
	LFS <sub>&lt;edge</sub>		(-)	Yes	(-)	Yes	
	THR <sub>600s</sub> (MJ)		52,6	(-)	(-)	(-)	
	SMOGRA (m <sup>2</sup> /s <sup>2</sup> )		4	(-)	≤ 30	(-)	
	TSP <sub>600s</sub> (m <sup>2</sup> )		17	(-)	≤ 50	(-)	
	Flaming droplets/particles						
	f < 10 s		(-)	No	(-)	No	
	f > 10 s		(-)	No	(-)	No	

(2) Based on the results obtained in test report No. 20931B - WEO60 33 mm.

(-) Not applicable.

### 3. CLASSIFICATION AND FIELD OF APPLICATION

a) Reference of classification

This classification has been carried out in accordance with EN 13501-1:2018.

b) Classification

The product **WEO60** in relation to its reaction to fire behavior is classified as:

Fire behavior	Smoke production	Flaming droplets
D	s1	d0

c) Field of application

This classification for the product as described in §1b, is valid for the following end use applications:

- Substrate: Euro class A2-s1,d0 or better, with a minimal thickness of 12 mm and a minimal density of 525 kg/m<sup>3</sup>.
- Fixing: Mechanically fixed using screws, onto a frame of horizontal wooden battens (untreated wood; 650 kg/m<sup>3</sup>). The distance between the wooden battens is 600 mm or less.
- With an air gap of 32 mm, created by the wooden battens
- Mounted vertically, with vertical tongue and groove joints
- Fire exposed side: Woodgrain textured side of the profiles

This classification is valid for the following product parameters:

- Total thickness: 33 mm
- Thickness core material: 3,6 mm
- Thickness coextruded layer (cap): 0,7 mm
- Profile width: 169 mm
- Nominal density of the core: 1349 kg/m<sup>3</sup>
- Nominal density coextruded layer (cap): 975 kg/m<sup>3</sup>
- Total surface mass: 14870 g/m<sup>2</sup>
- Colour: Dark grey
- Surface texture visible side: woodgrain texture
- With 33 % fire retardants in the core
- Wood/HDPE ratio of the core: 60 % wood and 40 % HDPE.

#### 4. RESTRICTIONS

At the time the standard EN 13501-1:2018 was published, no decision was made concerning the duration of validity of a classification report.

Provisions of Regulation (EU) 305/2011, commonly known as the Construction Products Regulation (CPR), prevail over any conflicting provisions in the harmonized standards and technical specifications.

#### 5. WARNING

This classification report does not represent type approval or certification of the product. According to the information mentioned by the sponsor on the technical information sheet there was no product standard for CE marking available at the time the classification report for the tested material/product was drafted.

When such a product standard is published, this report may be submitted again to the laboratory to evaluate the adequacy of the report for CE marking.

PREPARED BY

APPROVED BY

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