

CLASSIFICATION OF REACTION TO FIRE PERFORMANCE IN ACCORDANCE WITH EN 13501-1:2018

Classification no.	2020-Efectis-R 001820
Sponsor	Mobilane Building Green Viola 3 6681 RA BEMMEL THE NETHERLANDS
Product name	Mobilane “Live Panel” 2.0 FR
Prepared by	Efectis Nederland BV
Notified body no.	1234
Author(s)	A.J. Lock B.R. Knotnerus B.Sc.
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1. INTRODUCTION

This classification report defines the classification assigned to **Mobilane "Live Panel" 2.0 FR**, in accordance with the procedures given in EN 13501-1:2018.

2. DETAILS OF CLASSIFIED PRODUCT

2.1 GENERAL

The product, **Mobilane "Live Panel" 2.0 FR**, is defined as a ceiling or wall panel/wall covering.

2.2 MANUFACTURER

Mobilane Building Green
Viola 3
6681 RA BEMMEL
THE NETHERLANDS

2.3 PRODUCT DESCRIPTION

The product is composed of modules that each contain 9 plants. Each module consists of an expanded polypropylene frame with 3 slots at the front and a Polypropylene panel at the back. The modules are provided with an irrigation fabric that uses a capillary function to get water from the duct at the bottom of the panel to each plant. The fabric is put into an aluminium duct containing water. The horizontal ducts are connected with vertical tubes to distribute the water to other ducts. The specimen was provided with a type of plant that will not lignify during its life cycle.

The Live Panels are from inside out constructed as described below:

- Overall dimensions w x h x d: 400 x 400 x 105 mm;
- Material EPP FR (expanded polypropylene with fire retardant);
- Dry weight 0.61 kg/panel (approx. 3.8 kg/m²);
- Water resistant back side, Manufacturer: QDP B.V., Material: Polypropylene GF30 (Glass Filled 30), Thickness: 2 mm, Density: 1140 kg/m³;
- Irrigation fabric, Manufacturer: I.D. Trading, Material: 80% Polyester / 20% Polyamide, Thickness: 3 mm;
- Not lignifying organic vegetation (approx. 3.4 kg/panel);
- Vertical water distribution tubes connecting the horizontal ducts;
- Automatic controlled irrigation system, see § 4.4;
- Irrigation ducts, aluminium approx. 9.5 kg/m²;
- Hose cap and end caps, Manufacturer: QDP B.V., material: Polyamide GF30 (glass filled 30%);
- Vertical distribution hose, Manufacturer: QDP B.V., material: Ethyl Vinyl Acetate, thickness: 1.5 mm.

The panels have a total thickness of 105 mm (organic vegetation excluded) and a mass per unit area of:

- Dry system weight approx. 3.8 kg/m²;
- Vegetation approx. 21.1 kg/m² (including soil and plant roots);
- Moist in Live Panel 5.6 kg/m²;
- Water distribution system approx. 9.5 kg/m²;
- Total practical approx. 40 kg/m².

See drawing of the cassettes in the Appendix, 'Detailed information specimen'. In the SBI report.

3. STANDARDS, REPORTS, RESULTS AND CRITERIA IN SUPPORT OF THIS CLASSIFICATION

3.1 APPLICABLE (PRODUCT) STANDARDS

EN ISO 11925-2:2010 + C1:2011	Reaction to fire tests - Ignitability of products subjected to direct impingement of flame - Part 2: Single-flame source test
EN 13823:2010 + A1:2014	Reaction to fire tests for building products - Building products, excluding floorings exposed to the thermal attack by a single burning item
EN 13501-1:2018	Fire classification of construction products and building elements Part 1: Classification using data from reaction to fire tests

3.2 REPORTS

Name of Laboratories	Name of sponsor	Report ref. no.	Test method
Efectis Nederland BV THE NETHERLANDS	Mobilane Building Green THE NETHERLANDS	2020-Efectis-R001818 2020-Efectis-R001819	EN ISO 11925-2:2010 + C1:2011 EN 13823:2010 + A1:2014

3.3 TEST RESULTS

Test method and test number	Parameter	No. tests	Results	
			Continuous parameter – maximum	Compliance with parameters
EN ISO 11925-2 PVC panel (at back side)				
surface flame impingement	Fs ≤150 mm	6	35	-
	Ignition of filter paper		-	Compliant
Edge flame Impingement	Fs ≤150 mm	6	40	-
	Ignition of filter paper		-	Compliant

Test method and test number	Parameter	No. tests	Results	
			Continuous parameter – maximum	Compliance with parameters
EN ISO 11925-2 EPP cassette material				
surface flame impingement	Fs ≤150 mm	6	45	-
	Ignition of filter paper		-	Compliant
Edge flame Impingement	Fs ≤150 mm	6	45	-
	Ignition of filter paper		-	Compliant
EN ISO 11925-2 Irrigation fabric (indicative)				
surface flame impingement	Fs ≤150 mm	3	185*	
	Ignition of filter paper		-	Compliant
Edge flame Impingement	Fs ≤150 mm	3	185*	-
	Ignition of filter paper		-	Compliant

*The irrigation fabric failed in this test, but in practice this fabric is always wet.

Test method and test number	Parameter	No. tests	Results	
			Continuous parameter – mean (m)	Compliance with parameters
EN 13823				
	FIGRA _{0.2MJ} [W/s]	3	41	-
	FIGRA _{0.4MJ} [W/s]		40	-
	THR _{600s} [MJ]		3.7	-
	LFS < edge		No	Compliant
	SMOGRA [m²/s²]		35.3	-
	TSP _{600s} [m²]		95	-
	Flaming debris - flaming ≤ 10 s - flaming > 10 s			Compliant Compliant

3.4 CLASSIFICATION CRITERIA

Fire classification of construction products and building elements Excluding floorings and linear pipe thermal insulation products			
Classification criteria			
Class Test method(s)	B	C	D
EN ISO 11925-2 Exposure = 30 s	F _s ≤ 150 mm within 60 s Ignition of the paper in EN ISO 11925-2 results in a d2 classification.		
EN 13823	FIGRA _{0.2 MJ} ≤ 120 W/s LFS < edge of specimen THR _{600s} ≤ 7.5 MJ	FIGRA _{0.4 MJ} ≤ 250 W/s LFS < edge of specimen THR _{600s} ≤ 15 MJ	FIGRA _{0.4 MJ} ≤ 750 W/s
Additional classification			
Smoke production	s1 = SMOGRA ≤ 30 m ² /s ² and TSP _{600s} ≤ 50 m ² ; s2 = SMOGRA ≤ 180 m ² /s ² and TSP _{600s} ≤ 200 m ² ; s3 = not s1 or s2		
Flaming Droplets/particles	d0 = no flaming droplets/ particles in EN 13823 within 600 s; d1 = no flaming droplets/ particles persisting longer than 10 s in EN 13823 within 600 s; d2 = not d0 or d1.		

4. CLASSIFICATION AND FIELD OF APPLICATION

4.1 REFERENCE OF CLASSIFICATION

This classification has been carried out in accordance with clause 11 of EN 13501-1:2018.

4.2 CLASSIFICATION

The product, **Mobilane "Live Panel" FR 2.0**, in relation to its reaction to fire behaviour is classified:

B

The additional classification in relation to smoke production is:

S2

The additional classification in relation to flaming droplets / particles is:

d0

Reaction to fire classification: B – s2, d0

4.3 FIELD OF APPLICATION

This classification is valid for the following product parameters:

Thickness	105 mm
Surface density	Dry system weight approx. 3.8 kg/m ² ; Vegetation approx. 21.1 kg/m ² (including soil and plant roots); Moist in Live Panel 5.6 kg/m ² ; Water distribution system approx. 9.5 kg/m ² .
Other properties	Cassettes made of EPP FR (expanded polypropylene with fire retardant); Dry weight 0.61 kg/panel (approx. 3.8 kg/m ²); System filled with not lignifying organic vegetation

This classification is valid for the following end use applications:

Substrate	Non-combustible (class A1/A2 according to EN 13238:2010)
Air gap	No
Methods and means of fixing	Mechanically
Joints	Yes
Other aspects of end use conditions	Closed surface, no openings or gaps between components other than tested Minimum water content and system irrigation have to be guaranteed by computerized irrigation system.

4.4 DURATION OF THE VALIDITY OF THIS CLASSIFICATION REPORT

There are no limitations in time on the validity of this report.

5. LIMITATIONS

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



A.J. Lock
Project leader Reaction to Fire



B.R. Knottnerus B.Sc.
Project leader Reaction to Fire