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Efectis Nederland report

2009-Efectis-R1105

Reaction to fire testing of Fiberplast flooring panels; Series Solid: Types Cedar Brown and Anthracite Grey. Radiant Panel Flooring test according to EN ISO 9239-1:2002

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Project number	2009407
Number of pages	6

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Product identification:

Fiberplast flooring panels; Series Solid: Types Cedar Brown and Anthracite Grey, further referred to as 'the product'.

Abstract:

Determination of the reaction to fire properties of the product, when exposed to a thermal attack by a **Radiant Panel** according to EN ISO 9239-1:2002, with the objective to obtain the reaction to fire classification according to EN 13501-1.

Intended application:

The product will be used as a floor covering.

Manufacturer/importer:

Fiberplast BV
De Roef 7a
9206 AK Drachten
The Netherlands

Product description:

According to the sponsor the product is Series Solid: Type Cedar Brown and Anthracite Grey

Solid extruded profile made from a mixture of recycled wood and plastics, composed of:

- 50-53 % recycled wood dust
- 42-45 % recycled HDPE (high density polyurethane)
- 2.5- 4% additives: UV stabilizer, AO stabilizer, colour pigments
- Colours: Cedar brown and Anthracite grey

The total product has a thickness of approx. 19 mm

Mass per unit area approx. 21.8 kg/m²

Sample:

Sampling procedure: The samples were submitted by the sponsor Specimens were prepared by Efectis

Age: At the time of receipt: No information received.

Date of receipt: 21st October 2009

Specimen preparation:

Substrate used: 6 mm fiber cement board non-combustible (ISO 390 and class A1/A2 according to EN 13238).

Method of fixing: Loose laid with distance holders

Conditioning:

Prior to the examinations, the specimens were conditioned over at least a period of a week at a temperature of (23 ± 2) °C and a relative humidity of (50 ± 5) % according to § 4.1 of EN 13238:2001.

Method of examinations:

Number of tests: A total of five Radiant Panel Flooring tests were carried out, all in accordance with EN ISO 9239-1:2002.

Deviations from the test method: None

Harmonised Product Standard: At the time of examination of the product, the sponsor was not aware of a related existing Harmonised Product Standard.

Examination:

Date of examination: 2nd and 10th November 2009

The results are given in Table 1.

Table 1: Horizontal surface spread of flame, heat flux and light attenuation

Sample number	1	2	3	Classification parameter	4	5
Type: Solid	Cedar Brown				Anthracite Grey	
Orientation	Longitudial			Cross		
Spread of flame						
Distance [mm]	Time [s]					
50	231	265	255		260	270
100	342	380	365		385	395
150	462	500	475		480	520
200	579	600	615		620	640
250	705	730	732		765	820
300	903	872	890		945	1020
350	1170	1124	1135		1218	1310
400	1545	1530	1524		1585	1610
450						
Maximum spread of flame						
Distance [mm]	430	430	425		430	430
Time [s]	1800	1800	1800		1800	1800
Critical heat flux(CHF)						
CHF [kW/m ²]	5	5	5	5	5	5
Heat flux (HF) after x minutes						
Time [min]	HF [kW/m ²]					
10	9	9	9	9	10	10
20	6	6	6	6	6	7
30	5	5	5	5	5	5
Light attenuation (LA)						
Max. LA [%]	17	13	15	15	16	9
Total LA [%.min]	119	86	127	110	140	79

Observations of physical behaviour of the test specimen: None of interest

Conclusions:

A formal classification is to be assessed in accordance with EN 13501-1, “Fire classification of construction products and building elements – Part 1: Classification using data from reaction to fire tests”.

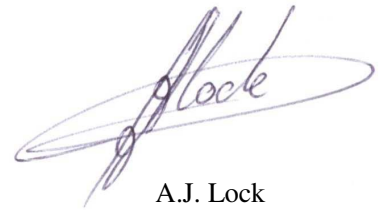
Graphs of Critical Heat Flux (CHF), Attenuation (smoke), Total Light Attenuation (smoke) are presented hereafter followed by a photograph of the samples tested.

Remarks:

The test results relate to the behaviour of the test specimens of a product under the particular conditions of the test; they are not intended to be the sole criterion for assessing the potential fire hazard of the product in use.

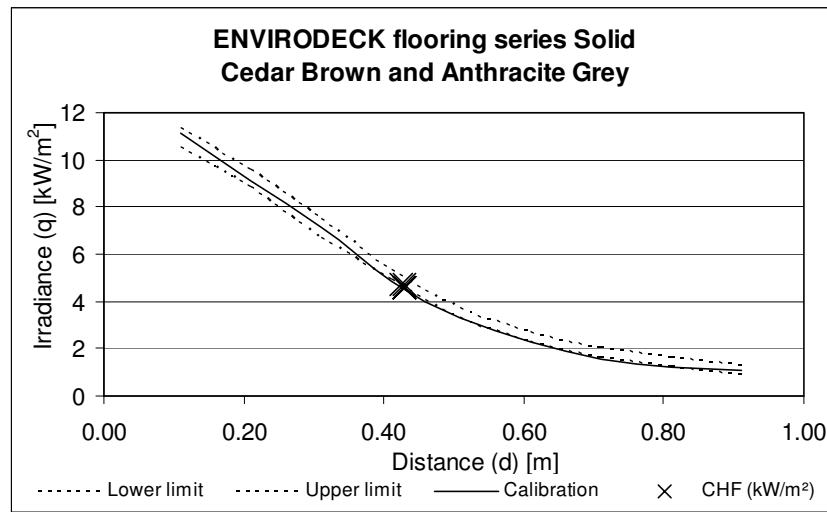


J.F. Ostenfeldt M.Sc.

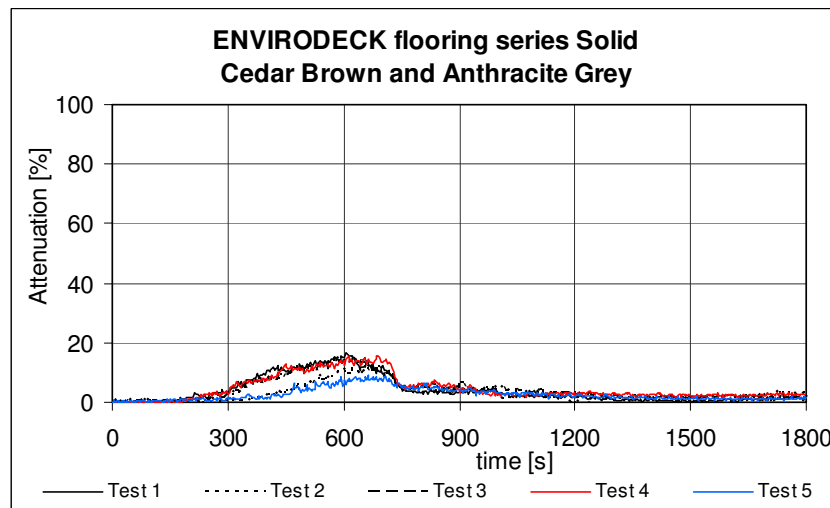


A.J. Lock

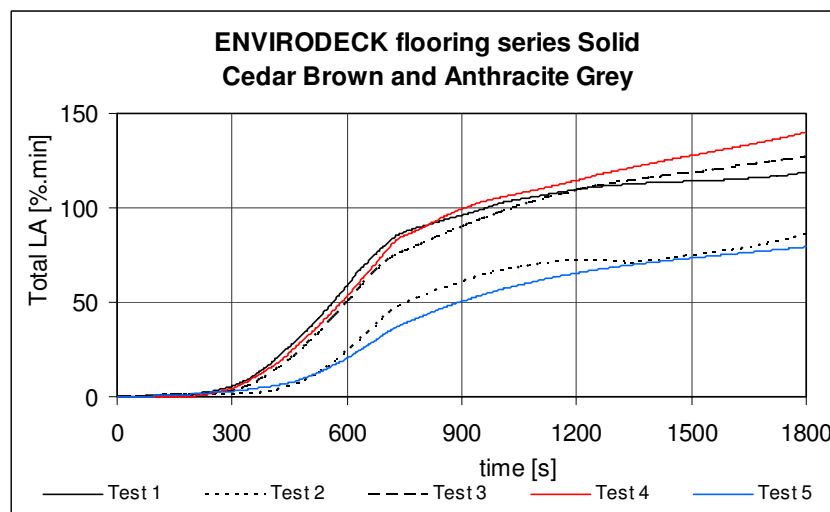
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Critical Heat Flux (CHF), Radiant Panel Flooring Test



Attenuation [%]



Total Light Attenuation [%·min]



Specimens after testing

Photographs of the Radiant panel test specimens