

## Reaction to fire testing of Recoat Floor Floor Radiant Panel test according to EN ISO 9239-1:2010

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## 1. PRODUCT IDENTIFICATION

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**Recoat Floor**, further referred to as 'the product'.

## 2. ABSTRACT

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Determination of the reaction to fire properties of the product, when exposed to the thermal attack by a **Radiant Panel** according to EN ISO 9239-1, with the objective to obtain the reaction to fire classification according to EN 13501-1:2018.

## 3. DETAILS OF THE PRODUCT TESTED

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### 3.1 INTENDED APPLICATION

The product will be used as anti-slip floor coating.

### 3.2 MANUFACTURER

Recoat BV  
Schaafdries 12  
5371 NJ RAVENSTEIN  
THE NETHERLANDS

### 3.3 PRODUCT DESCRIPTION

According to the sponsor the product is composed of:

- Transparent one component water borne primer, reference Recoat Multi Primer, wet layer of thickness of  $70 \pm 10$  micron, resulting in a dry layer thickness of  $30 \pm 5$  micron, with a specific dry density of  $1090 \text{ kg/m}^3$  and a mass per surface area of  $15\text{-}20 \text{ m}^2$  per litre;
- Transparent two component water borne topcoat, reference Recoat (2K) Floor, wet layer of thickness of  $65 \pm 10$  micron, resulting in a dry layer thickness of  $30 \pm 5$  micron, with a specific dry density of  $1250 \text{ kg/m}^3$  and a mass surface area of  $10\text{-}15 \text{ m}^2$  per litre; the mixing ratio of the Recoat Base and the Recoat hardener is 4:1.

## 4. DETAILS OF THE EXAMINATION

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### 4.1 SAMPLE

Sampling procedure	The specimens were prepared and samples were submitted by the sponsor.
Age	At the time of receipt: no information received.
Date of receipt	December 14 <sup>th</sup> , 2021

### 4.2 SPECIMEN PREPARATION

Preparation	The specimens were prepared by the sponsor
Substrate used	6 mm fibre cement board non-combustible

(ISO 390 and class A1/A2 according to EN 13238:2010)

Method of fixing

Applied on the substrate with a roller

#### 4.3 CONDITIONING

Prior to the examinations, the specimens were conditioned until constant mass achieved at a temperature of  $(23 \pm 2)$  °C and a relative humidity of  $(50 \pm 5)$  % according to § 4.1 of EN 13238.

#### 4.4 METHOD OF EXAMINATION

Number of tests

A total of 3 Radiant Panel Flooring tests were carried out, all in accordance with EN ISO 9239-1.

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.

Assessment

The specimens extinguished before the test duration of 800 seconds was reached.  
No smoke production over a long period of time (>200 seconds) was observed.

#### 4.5 EXAMINATION

Date of examination

December 20<sup>th</sup>, 2021

Location of examination

Efectis Nederland BV, Bleiswijk, The Netherlands

Performed by

LEG

The results are given in Table 1 of the Appendix: Results.

## 5. CONCLUSIONS

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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, Attenuation (smoke), Smoke density (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.



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Manager Testing Reaction to Fire

## APPENDIX: RESULTS

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

Sample number		1	2	3	Classification parameter
<b>Spread of flame</b>					
Distance	[mm]	Time [s]			
	15	130	130	130	
	60				
	110				
	160				
	210				
	260				
	310				
	360				
	410				
	460				
	510				
	560				
	610				
	660				
	710				
	760				
	810				
	860				
	910				
<b>Maximum spread of flame</b>					
Distance	[mm]	15	14	15	
Flameout	[s]	720	730	725	
<b>(Critical) Heat Flux(CHF)</b>					
HF	[kW/m <sup>2</sup> ]	>=11	>=11	>=11	>=11
<b>Light attenuation (LA)</b>					
Smoke density	[%.min]	11	9	9	10
Test end	[s]	1800	1800	1800	

Observations of physical behaviour of the test specimen:

The specimens extinguished when the pilot burner was removed.

No smoke production over a long period of time (>200 seconds) was observed.

## **APPENDIX: GRAPHS**

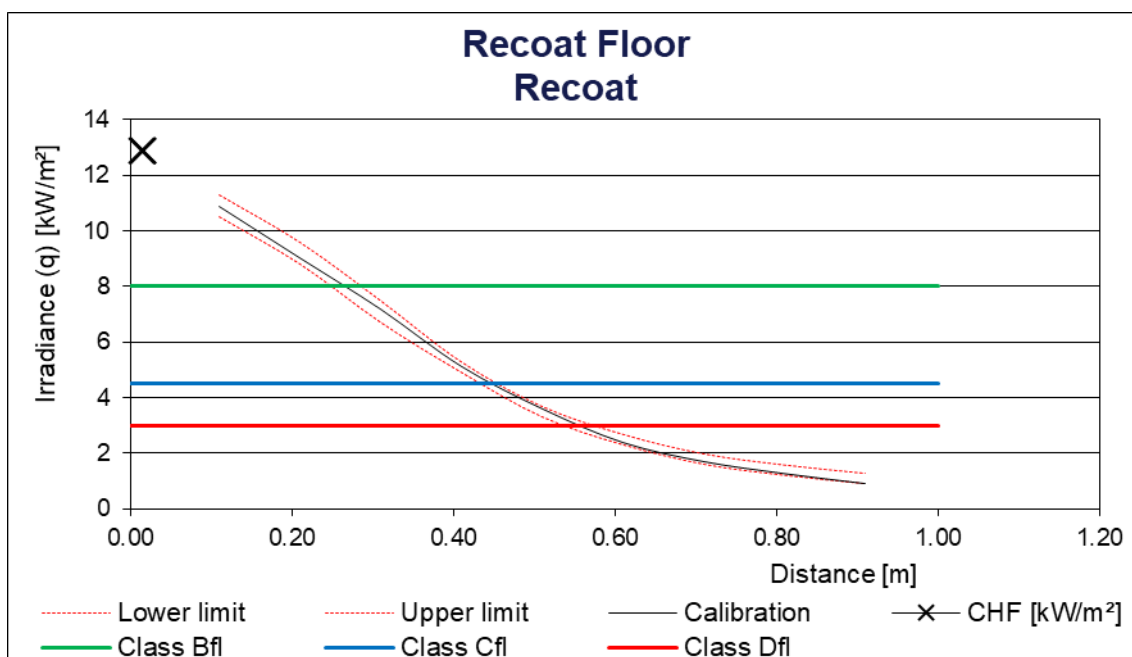
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Graph 1: (Critical) Heat Flux, Radiant Panel Flooring Test

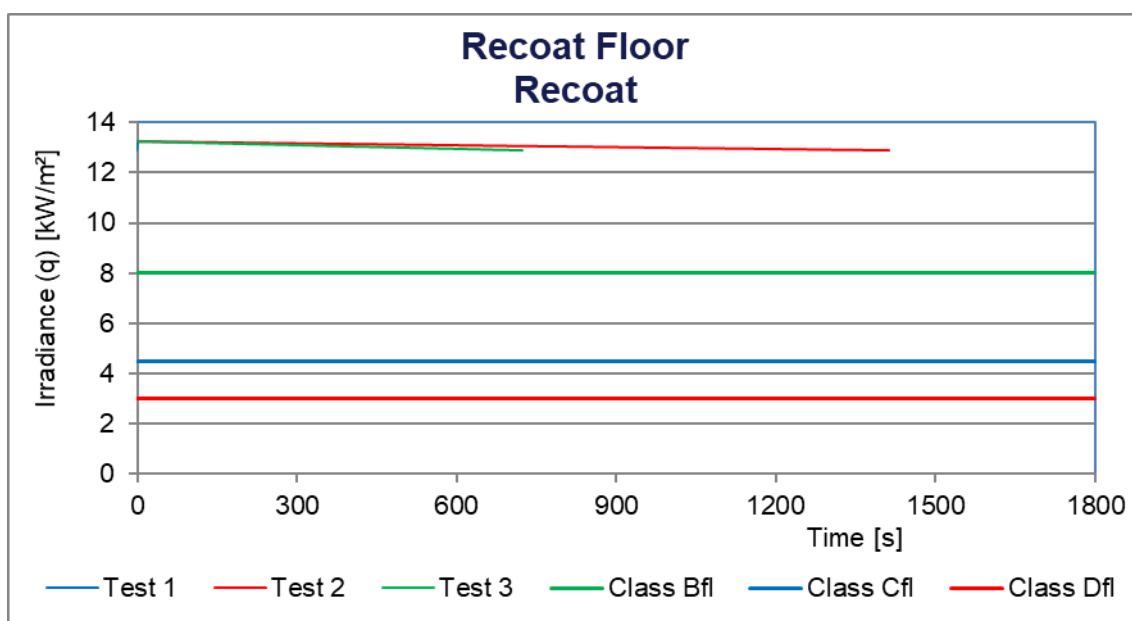
Graph 2: Flame spread vs time

Graph 3: Attenuation [%]

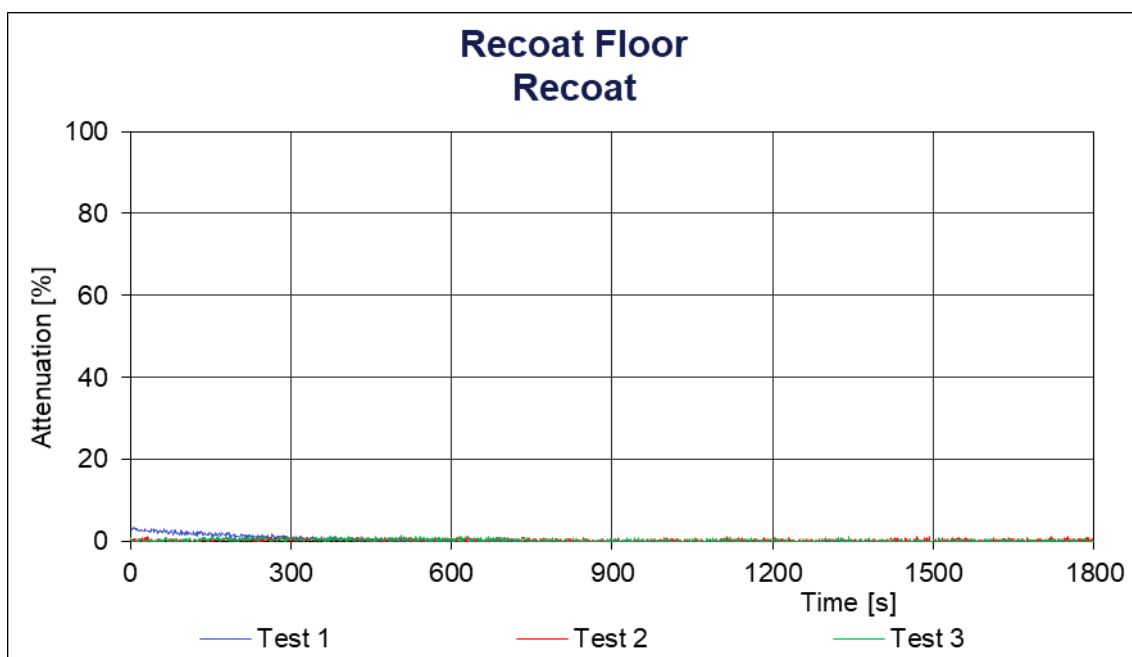
Graph 4: Smoke density [%.min]



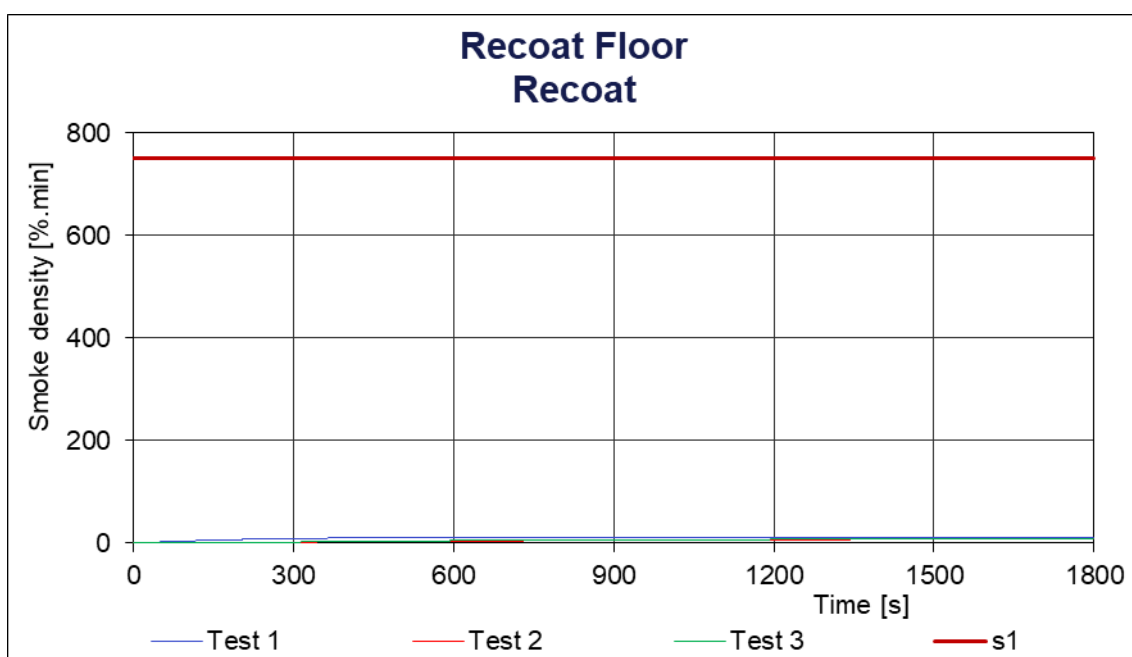
Graph 1: (Critical) Heat Flux, Radiant Panel Flooring Test



Graph 2: Flame spread vs time



Graph 3: Attenuation [%]



Graph 4: Smoke density [%.min]



APPENDIX: PHOTOGRAPH



Photograph 1: Specimens after testing