

„MEŽA UN KOKSNES PRODUKTU PĒTNIECĪBAS UN ATTĪSTĪBAS INSTITŪTS” SIA  
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## Classification of reaction to fire in accordance with EN 13501-1:2018

Issue number: K57/2021

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**Sponsor:** Retaflame LLC.

Address: Laki 11E, Tallinn 12915, Estonia.

Reg. No. 14407952.

**Manufacturer and owner of the classification report:** Retaflame LLC.

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

Test performed at: SIA “Meža un koksnes produktu pētniecības un attīstības institūts” (*Forest and Wood Products Research and Development Institute Ltd*), “Pienavas katlu māja”, Pienava, Džūkstes pagasts, Tukuma novads, LV-3147, Latvia (“*Pienava heat plant*”, Pienava, Džūkste parish, Tukums region, LV-3147, Latvia).

**Product name:** Flame retardant coating system.

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 flame retardant coating system in accordance with the procedures given in EN 13501-1:2018.

## 2. Details of classified product

### 2.1. General

Flame retardant coating system is defined as flame retardant coating system for wood based products.

### 2.2. Product description

- Product name: Flame retardant coating system.
- Manufacturer: Retaflame LLC.
- Materials used for manufacturing:
  - flame retardant intumescent primer RETAFLAME WP 750, applied in 2 layers with total amount  $\geq 380 \text{ g/m}^2$  wet;
  - RETAFLAME WP 790 top-coat with consumption  $150 \text{ g/m}^2$  wet.
- Coating colour: white.

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

### 3.1. Specific conditions

Not applicable

### 3.2. Test reports

Name of laboratory	Name of sponsor	Test reports	Test method
SIA „Meža un koksnes produktu pētniecības un attīstības institūts” Testing Laboratory	Retaflame LLC	5949-1/2021	EN 13823:2020
SIA „Meža un koksnes produktu pētniecības un attīstības institūts” Testing Laboratory	Retaflame LLC	5949-2/2021	EN ISO 11925-2:2020

Sampling for fire tests was done according sampling act No. PVA-183-21-0002 by Margus Matsal (Retaflame LLC) and Inspecta Estonia OÜ (KIWA, notified body No. 1336) at Laki 11E, Mustamäe linnaosa, Harju maakond, Tallinn 12915, Estonia on 27.05.2021.

### 3.3. Test results

Test method	Parameter	Number of tests	Results	
			Continuous parameter mean	Compliance parameters
EN 13823:2020	<i>FIGRA</i> <sub>0,2MJ</sub> (W/s)	3	26.1	(-)
	<i>FIGRA</i> <sub>0,4MJ</sub> (W/s)		26.1	(-)
	<i>THR</i> <sub>600s</sub> (MJ)		3.0	(-)
	<i>LFS</i>		no	Compliant
	<i>SMOGRA</i> (m <sup>2</sup> /s <sup>2</sup> )		1.2	(-)
	<i>TSP</i> <sub>600s</sub> (m <sup>2</sup> )		18.7	(-)
	Flaming droplets <10s Flaming droplets >10s		(-) (-)	Compliant Compliant
EN ISO 11925-2:2020  Exposure time 30 s. Test duration 60 s.	Flame spread (Fs)	12	(-)	Compliant
	Ignition of filter paper		(-)	Compliant
	Flaming droplets/particles		(-)	Compliant
(-) not applicable				

### 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

Flame retardant coating system in relation to its reaction to fire behaviour is classified:

B

The additional classification in relation to smoke production is:

s1

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

d0

The format of the reaction to fire classification for construction product excluding floorings and linings is:

Fire behaviour		Smoke production			Flaming droplets	
B	-	s	1	,	d	0

**Reaction to fire classification: B-s1, d0**

### 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 flame retardant coating system for wood based products.

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

- valid only for product composition as tested;
- valid for flame retardant primer RETAFLAME WP 750 with total amount 380 g/m<sup>2</sup> or larger;
- valid for flame retardant coating RETAFLAME WP 790 with consumption 150 g/m<sup>2</sup>;
- valid only for colour tone as tested;
- applied to substrate of any wood-based D-s2,d0 class product or better with a minimum density of 510 kg/m<sup>3</sup> and thickness 12 mm and larger thicknesses.
- fire performance of product determined at standard wood substrate mounting without air gap between substrate and calcium silicate backing board;
- product tested without standard vertical and horizontal joints.

### 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.

Prepared by



E. Bukšāns

(signature and name)

Reviewed by



K. Būmanis

(signature and name)

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(Signature validity can be checked: <https://www.eparaksts.lv/en>)