

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

Classification no.	2020-Efectis-R000828
Sponsor	Intumescent Systems Ltd Envirograf House Barfrestone CT15 7JG DOVER UNITED KINGDOM
Product name	coated Cross Laminated Timber
Prepared by	Efectis Nederland BV
Notified body no.	1234
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1. INTRODUCTION

This classification report defines the classification assigned to in accordance with the procedures given in EN 13501-1:2018.

2. DETAILS OF CLASSIFIED PRODUCT

2.1 GENERAL

The product, **coated cross laminated timber (CLT)** , is defined as a wall covering.

2.2 MANUFACTURER

Intumescent Systems Ltd
Envirograf House
Barfrestone
CT15 7JG DOVER
UNITED KINGDOM

2.3 PRODUCT DESCRIPTION

Product description:

- Cross Laminated Timber coated with:
 - One coat of HWAP primer at 12 m² per litre;
 - Two coats of HW02/N Clear Intumescent coating at 8 m² per litre per coat;
 - One coat of Enviro Clear top coat in satin at 8 m² per litre.

The product has a total thickness of 45 mm and a density of approx. 500 kg/m³.

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	Intumescent Systems Ltd	2020-Efectis-R000825	EN ISO 11925-2:2010 + C1:2011
	Envirograf House UNITED KINGDOM	2020-Efectis-R000826	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				
surface flame impingement	Fs ≤150 mm	6	50	-
	Ignition of filter paper		-	Compliant
Edge flame Impingement	Fs ≤150 mm	6	50	-
	Ignition of filter paper		-	Compliant

Test method and test number	Parameter	No. tests	Results	
			Continuous parameter – mean (m)	Compliance with parameters
EN 13823				
	FIGRA _{0.2MJ} [W/s]	3	96	-
	FIGRA _{0.4MJ} [W/s]		84	-
	THR _{600s} [MJ]		4.2	-
	LFS < edge		-	Compliant
	SMOGRA [m ² /s ²]		6.7	-
	TSP _{600s} [m ²]		54-22=32	-
	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	B	C	D
Test method(s)			
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, **coated cross laminated timber (CLT)**, 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

Reaction to fire classification: B – s1, d0

4.3 FIELD OF APPLICATION

This classification is valid for the following product parameters:

Thickness	45 mm
density	500 kg/m ³
Other properties	Coated with: <ul style="list-style-type: none">• One coat of HWAP primer at 12 m² per litre; Two coats of HW02/N Clear Intumescent coating at 8 m² per litre per coat;• One coat of Enviro Clear top coat in satin at 8 m² per litre.

This classification is valid for the following end use applications:

Substrate	Cross Lamminted Timber (CLT)
Application	Free standing and as construction material
Air gap	Yes, if applicable
Methods and means of fixing	Painting
Joints	Vertical
Other aspects of end use conditions	Closed surface, no openings or gaps between components

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.



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