



Reaction to Fire Classification Reports

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The classification of each system is valid only for the exact build-up described in the respective report.

PURPOSE OF THE DOCUMENT

This document compiles the official reaction-to-fire classification reports for the EcoCocon Straw Wall System in accordance with EN 13501-1, issued by accredited notified bodies. It confirms the fire classification achieved by each wall build-up.

WHO IS THIS DOCUMENT FOR

Architects, engineers, fire safety consultants, and building designers specifying the EcoCocon Straw Wall System who need to verify the reaction-to-fire class of a specific build-up.

WHAT IF MY BUILD-UP IS NOT LISTED?

If your wall build-up or finish is not covered by these classifications, please contact the EcoCocon technical team for guidance.

Loadbearing Wall — Exterior Render System Reaction to Fire Classification (EN 13501-1)

FIRES, s.r.o. (Notified Body 1396) · Issued 29 September 2025

CLASSIFICATION OF REACTION TO FIRE FIRES-CR-183-25-AUPE

Loadbearing wall composed of EcoCocon straw modules

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

with direct field of application

FIRES-CR-183-25-AUPE

Name of the product: Loadbearing wall composed of EcoCocon straw modules

Sponsor: EcoCocon UAB
Gedimino str. 30
70421 Kybartai
Lithuania

Prepared by: FIRES, s.r.o.
Notified Body No. 1396
Osloboditeľov 282
059 35 Batizovce
Slovak Republic

Task No.: PR-25-0160
Date of issue: 29. 09. 2025

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Copy No. 1 FIRES, s. r. o., Osloboditeľov 282, 059 35 Batizovce, Slovak Republic
Copy No. 2 EcoCocon UAB, Gedimino str. 30, 70421 Kybartai, Lithuania

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1. INTRODUCTION

This classification report defines the reaction to fire assigned to element Loadbearing wall composed of EcoCocon straw modules in accordance with the procedures given in EN 13501-1: 2018.

2. DETAILS OF CLASSIFIED PRODUCT

2.1 GENERAL

The element, Loadbearing wall composed of EcoCocon straw modules product name (as described by the sponsor), is defined as a load-bearing wall with fire separating function.

2.2 PRODUCT DESCRIPTION

Dimensions

Overall dimensions of the tested product	3000 x 3000 x 250 mm (height x width x thickness)
Modules dimensions	2900 x 850 x 250 mm (height x width x thickness)
	2900 x 450 x 250 mm (height x width x thickness)

Construction of the module

The double front frame construction of each module consists of studs and transoms made from C24 spruce profiles 45 x 95 mm. The top and bottom edges of the modules are covered with 12,0 mm thick plywood. Each stud is fixed to the plywood with two 8,0 x 100 mm TX40 washer head screws. The transoms at the top and bottom of the module edge are fixed to the plywood with 4,5 x 50 mm TX20 countersunk head screws 65 mm from the edges and at maximum 240 mm centres. The transoms within the module are positioned 970 mm from the top and bottom edges of the module and are fixed between the studs with two 4,5 x 50 mm TX20 countersunk head screws.

The opposing transoms within the module are joined together with two 150 mm wide by 12,0 mm thick plywood strips positioned 80 mm from the studs and fixed to the transoms with a 4,5 x 50 mm TX20 countersunk head screw. In the case of the 450 mm wide module, the transoms within the module are joined together with only one plywood strip positioned at the mid-width of the transoms.

The core of the module is compressed straw with a nominal bulk density of 115 kg.m⁻³.

Joining of the modules

The modules are fixed together along the vertical edges with 8,0 x 120 mm TX40 washer head screws positioned just above/below the top and bottom transoms and next at maximum 476 mm centres.

Two 100 x 100 mm C24 timber profiles are placed at the top of the wall along the front and rear edges and fixed to the modules with 8,0 x 120 mm TX40 washer head screws at maximum 400 mm centres.

Covering of the wall

External wall face is covered by a 0,45 mm thick SOLITEX MENTO 3000 diffusion-open membrane (manufacturer: Pro Klima) fixed to timber profiles by 6 mm thick and 80 mm wide plywood stripes and 63 mm long steel staples spaced each 150 mm. Wood fibber board type Steico Protect H (manufacturer: STEICO UK Limited, Unit 3 Eden Brae Business Park, Dunstable Road, Caddington LU1 4FF, United Kingdom) with dimensions (1325 x 600 x 60) mm and bulk density 265 kg.m⁻³ are fixed to timber frame construction by steel staples (25 x 100) mm spaced each 70 mm at the perimeter of wall and each 150 mm at wall surface to vertical timber profiles of modules. Boards are joined together by tongue-groove joints on the board edges.

Wood fibber board external surface is covered by base coat StarContact (manufacturer: Baumit Beteiligungen GmbH, Wopfing 156, A-2754 Waldegg, Austria, manufacturing plant Baumit Beteiligungen GmbH, Wopfing 156, A-2754 Waldegg, Austria), with minimum coverage 4,0 kg.m⁻² in two layers together with glass-fibre reinforcing mesh R 117 A101 (manufacturing plant Saint-Gobain Adfords CZ, s.r.o., Sokolovská 106, 570 21 Litomyšl, Czech republic) with area density 142 g.m⁻² ±5 %, mesh size (4,0 x 4,5) mm.



3. TEST REPORTS IN SUPPORT OF CLASSIFICATION

3.1 TEST REPORTS

No.	Name of laboratory	Name of sponsor	Test report No.	Date of the test	Test method	Type of the test
[1]	FIRES, s.r.o., Batizovce, SR	EcoCocon UAB, Kybartai, Lithuania	FIRES-RF-037-25-AUNE	11. 07. 2025	EN 13823: 2020 + A1: 2022	A
[2]			FIRES-RF-039-25-AUNE	08. 08. 2025 03. 09. 2025 08. 09. 2025	EN ISO 11925-2: 2020	A
[3]			FIRES-RF-040-25-AUNE	03. 09. 2025	EN ISO 11925-2: 2020	A

Type of the test: A – accredited, N – non-accredited

[1] – [3] Test specimens were conditioned according to EN 13823 before the reaction to fire

- [1] Test of Loadbearing wall composed of EcoCocon straw modules with external face covering
- [2] Test of Loadbearing wall composed of EcoCocon straw modules with external face covering excluding core. Specimens were exposed with flame to main surface and to bottom edge of base coat with wood fibre board substrate, the bottom edge of the wood fibre board, in the middle of the board thickness (specimen turned 90°), the bottom edge of the plywood and the bottom edge of diffusion membrane with plywood substrate acc. to EN 13238: 2010.
- [3] Test of Compressed straw of EcoCocon straw modules. Specimens were exposed with flame to main surface and to bottom edge of the specimens.

3.2 TEST SPECIMENS

Test report No.	Samples information	Conditioning
[1]	-	The specimen was stored in the hall of testing laboratory and conditioned according to EN 13238 under following climatic conditions: Ambient air temperature: 22,4 °C, st. deviation 0,5 °C Relative air humidity: 45,6 %, st. deviation 6,5 %
[2]	-	The specimen was stored in the hall of testing laboratory and conditioned according to EN 13238 under following climatic conditions: 08. 08. 2025 Ambient air temperature: 23,3 °C, st. deviation 2,3 °C Relative air humidity: 45,3 %, st. deviation 5,6 % 03. 09. 2025 Ambient air temperature: 23,1 °C, st. deviation 0,5 °C Relative air humidity: 46,5 %, st. deviation 4,8 % 08. 09. 2025 Ambient air temperature: 23,0 °C, st. deviation 0,6 °C Relative air humidity: 45,3 %, st. deviation 5,0 %
[3]	-	The specimen was stored in the hall of testing laboratory and conditioned according to EN 13238 under following climatic conditions: Ambient air temperature: 23,1 °C, st. deviation 0,7 °C Relative air humidity: 46,5 %, st. deviation 4,8 %



3.3 TEST RESULTS

Test report number and test method	Characteristic value	Number of tests	Results	
			Continuous parameter - mean (m)	Compliance with parameters
[1] STN EN 13823	FIGRA _{0,2MJ}	3	20,3	(-)
	FIGRA _{0,4MJ}		19,8	(-)
	LFS<edge of specimen		(-)	compliant
	THR _{600s}		2,4	(-)
	SMOGRA (m ² /s ²)		0,0	(-)
	TSP600s (m ²)		5,4	(-)
	flaming droplets/particles		occurrence flaming ≤ 10 s flaming >10 s	non-compliant (-) (-)
[2] EN ISO 11925-2 surface/edge of specimen exposed to flame (exposure time 30 s)	F _s ≤ 150 mm	30	(-)	compliant
flaming droplets/particles	ignition of the paper		(-)	non-compliant
[3] EN ISO 11925-2 surface/edge of specimen exposed to flame (exposure time 30 s)	F _s ≤ 150 mm	12	(-)	compliant
flaming droplets/particles	ignition of the paper		(-)	non-compliant

4. CLASSIFICATION AND FIELD OF APPLICATION

4.1 REFERENCE OF CLASSIFICATION

This classification has been carried out in accordance with clause 11.6 of EN 13501-1: 2018.



4.2 CLASSIFICATION

The product, Loadbearing wall composed of EcoCocon straw modules, 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 products excluding floorings is:

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

Reaction to fire classification: B – s1, d0

4.3 FIELD OF APPLICATION

This classification is valid for the following final use applications:

- i) external walls (classification valid from exterior side);
- ii) partitions (classification valid from exterior side);
- iii) characteristic product orientation: vertical;
- iv) edges: protected/closed edges.

This classification is also valid for the following product parameters:

Composition	The classification applies to the products described in the quantities used (clause 2.2), and all products and components which have: - the same or lower content of organic materials; - the same or higher content of flame retardants of the same; - the same or lower PCS value of used materials. The order of the individual layers must not be changed.
Bulk density/mass per surface of area	- bulk density/mass per surface of area of base coat, straw, wood and plywood can be increased only; - change in bulk density/mass per surface of area of wood fibre board is not allowed; - bulk density/mass per surface of area of reinforcing mesh and diffusion membrane can be reduced only.
Thickness	- change in thickness of straw is allowed without limitations; - thickness of diffusion membrane, reinforcing mesh, wood and wood-based materials (plywood, wood fibre board) can be reduced only; - thickness of base coat can be increased only.
Surfaces/finishing	Surfaces/finishing with reaction to fire class A1, or A2 can be used only.



5. LIMITATIONS

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

The classification is valid provided that the product, field of application and standards and regulations are not changed.

Approved by:

Ing. Marek Gorlický
Head of the Testing Laboratory

Prepared by:

Ing. Samuel Skokan
Technician of the Testing Laboratory



Loadbearing Wall — Interior Clay Plaster Reaction to Fire Classification (EN 13501-1)

FIRES, s.r.o. (Notified Body 1396) · Issued 26 September 2025

CLASSIFICATION OF REACTION TO FIRE

FIRES-CR-182-25-AUPE

Loadbearing wall composed of EcoCocon straw modules

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

with direct field of application

FIRES-CR-182-25-AUPE

Name of the product: Loadbearing wall composed of EcoCocon straw modules

Sponsor: EcoCocon UAB
Gedimino str. 30
70421 Kybartai
Lithuania

Prepared by: FIRES, s.r.o.
Notified Body No. 1396
Osloboditeľov 282
059 35 Batizovce
Slovak Republic

Task No.: PR-25-0160
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1. INTRODUCTION

This classification report defines the reaction to fire assigned to element Loadbearing wall composed of EcoCocon straw modules in accordance with the procedures given in EN 13501-1: 2018.

2. DETAILS OF CLASSIFIED PRODUCT

2.1 GENERAL

The element, Loadbearing wall composed of EcoCocon straw modules product name (as described by the sponsor), is defined as a load-bearing wall with fire separating function.

2.2 PRODUCT DESCRIPTION

Dimensions

Overall dimensions of the tested product	3000 x 3000 x 250 mm (height x width x thickness)
Modules dimensions	2900 x 850 x 250 mm (height x width x thickness)
	2900 x 450 x 250 mm (height x width x thickness)

Construction of the module

The double front frame construction of each module consists of studs and transoms made from C24 spruce profiles 45 x 95 mm. The top and bottom edges of the modules are covered with 12,0 mm thick plywood. Each stud is fixed to the plywood with two 8,0 x 100 mm TX40 washer head screws. The transoms at the top and bottom of the module edge are fixed to the plywood with 4,5 x 50 mm TX20 countersunk head screws 65 mm from the edges and at maximum 240 mm centres. The transoms within the module are positioned 970 mm from the top and bottom edges of the module and are fixed between the studs with two 4,5 x 50 mm TX20 countersunk head screws.

The opposing transoms within the module are joined together with two 150 mm wide by 12,0 mm thick plywood strips positioned 80 mm from the studs and fixed to the transoms with a 4,5 x 50 mm TX20 countersunk head screw. In the case of the 450 mm wide module, the transoms within the module are joined together with only one plywood strip positioned at the mid-width of the transoms.

The core of the module is compressed straw with a nominal bulk density of 115 kg.m⁻³.

Joining of the modules

The modules are fixed together along the vertical edges with 8,0 x 120 mm TX40 washer head screws positioned just above/below the top and bottom transoms and next at maximum 476 mm centres.

Two 100 x 100 mm C24 timber profiles are placed at the top of the wall along the front and rear edges and fixed to the modules with 8,0 x 120 mm TX40 washer head screws at maximum 400 mm centres.

Covering of the wall

Internal wall face is covered by wood fiber board type SteicoUnderfloor (manufacturer: STEICO UK Limited, Caddington, United Kingdom), bulk density 250 kg.m⁻³, thickness 7 mm. Boards are fixed to timber frame construction by steel staples 25 x 100 mm spaced each 70 mm at the perimeter of wall and each 150 mm at wall surface to vertical timber profiles of modules.

Wood fiber board external surface is covered by Internal clay plaster type Classic Clay Plaster (manufacturer: Mr. Clay, Alytus, Lithuania), 25 mm thick with jute reinforcement mesh (120 g.m⁻²), mas per surface area 1500 g.m⁻².



3. TEST REPORTS IN SUPPORT OF CLASSIFICATION

3.1 TEST REPORTS

No.	Name of laboratory	Name of sponsor	Test report No.	Date of the test	Test method	Type of the test
[1]	FIRES, s.r.o., Batizovce, SR	EcoCocon UAB, Kybartai, Lithuania	FIRES-RF-036-25-AUNE	11. 07. 2025	EN 13823: 2020 + A1: 2022	A
[2]			FIRES-RF-038-25-AUNE	08. 08. 2025 03. 09. 2025	EN ISO 11925-2: 2020	A
[3]			FIRES-RF-040-25-AUNE	03. 09. 2025	EN ISO 11925-2: 2020	A

Type of the test: A – accredited, N – non-accredited

[1] – [3] Test specimens were conditioned according to EN 13823 before the reaction to fire

- [1] Test of Loadbearing wall composed of EcoCocon straw modules with internal face covering
- [2] Test of Loadbearing wall composed of EcoCocon straw modules with internal face covering excluding core. Specimens were exposed with flame to main surface of clay layer, to bottom edge of clay layer, to the bottom edge of the wood fibre board, in the middle of the board thickness (specimen turned 90°), to main surface of spruce profile and to bottom edge of spruce profile.
- [3] Test of Compressed straw of EcoCocon straw modules. Specimens were exposed with flame to main surface and to bottom edge of the specimens.

3.2 TEST SPECIMENS

Test report No.	Samples information	Conditioning
[1]	-	The specimen was stored in the hall of testing laboratory and conditioned according to EN 13238 under following climatic conditions: Ambient air temperature: 22,4 °C, st. deviation 0,5 °C Relative air humidity: 45,6 %, st. deviation 6,5 %
[2]	-	The specimen was stored in the hall of testing laboratory and conditioned according to EN 13238 under following climatic conditions: 08. 08. 2025 Ambient air temperature: 23,3 °C, st. deviation 2,3 °C Relative air humidity: 45,3 %, st. deviation 5,6 % 03. 09. 2025 Ambient air temperature: 23,1 °C, st. deviation 0,5 °C Relative air humidity: 46,5 %, st. deviation 4,8 %
[3]	-	The specimen was stored in the hall of testing laboratory and conditioned according to EN 13238 under following climatic conditions: Ambient air temperature: 23,1 °C, st. deviation 0,7 °C Relative air humidity: 46,5 %, st. deviation 4,8 %



3.3 TEST RESULTS

Test report number and test method	Characteristic value	Number of tests	Results	
			Continuous parameter - mean (m)	Compliance with parameters
[1] STN EN 13823	FIGRA _{0,2MJ}	3	0,0	(-)
	FIGRA _{0,4MJ}		0,0	(-)
	LFS<edge of specimen		(-)	compliant
	THR _{600s}		0,3	(-)
	SMOGRAM (m ² /s ²)		0,0	(-)
	TSP600s (m ²)		2,1	(-)
[2] EN ISO 11925-2 surface/edge of specimen exposed to flame (exposure time 30 s)	flaming droplets/particles	30	occurrence flaming ≤ 10 s flaming >10 s	non-compliant (-) (-)
			(-)	compliant
			(-)	non-compliant

4. CLASSIFICATION AND FIELD OF APPLICATION

4.1 REFERENCE OF CLASSIFICATION

This classification has been carried out in accordance with clause 11.6 of EN 13501-1: 2018.

4.2 CLASSIFICATION

The product, Loadbearing wall composed of EcoCocon straw modules, 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 products excluding floorings is:

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

Reaction to fire classification: B – s1, d0



4.3 FIELD OF APPLICATION

This classification is valid for the following final use applications:

- i) external walls (classification valid from interior side);
- ii) partitions (classification valid from interior side);
- iii) characteristic product orientation: vertical;
- iv) edges: protected/closed edges.

This classification is also valid for the following product parameters:

Composition	The classification applies to the products described in the quantities used (clause 2.2), and all products and components which have: - the same or lower content of organic materials; - the same or higher content of flame retardants of the same; - the same or lower PCS value of used materials. The order of the individual layers must not be changed.
Bulk density/mass per surface of area	- bulk density/mass per surface of area of clay plaster, straw, wood and plywood can be increased only; - change in bulk density/mass per surface of area of wood fibre board is not allowed; - bulk density/mass per surface of area of reinforcing mesh can be reduced only.
Thickness	- change in thickness of straw is allowed without limitations; - thickness of reinforcing mesh, wood and wood-based materials (plywood, wood fibre board) can be reduced only; - thickness of clay plaster can be increased only.
Surfaces/finishing	Surfaces/finishing with reaction to fire class A1, or A2 can be used only.



5. LIMITATIONS

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

The classification is valid provided that the product, field of application and standards and regulations are not changed.

Approved by:

Ing. Marek Gorlický
Head of the Testing Laboratory

Prepared by:

Ing. Samuel Skokan
Technician of the Testing Laboratory



**Panel with Knauf MP 75
Gypsum Plaster
Reaction to Fire Classification (EN 13501-1)**

Fire Research Centre, Lithuania · Issued 17 June 2021



PRD

FIRE AND RESCUE DEPARTMENT UNDER THE MINISTRY OF THE INTERIOR OF
THE REPUBLIC OF LITHUANIA**FIRE RESEARCH CENTRE**
PRODUCTS RESEARCH DIVISION**1. Introduction**

This classification report defines the classification assigned to the wooden frame outside panels with thermoinsulating straw filling, from one side covered with gypsum plaster "Knauf MP 75" in accordance with procedures given in LST EN 13501-1:2019

CLASSIFICATION OF REACTION TO FIRE
IN ACCORDANCE WITH LST EN 13501-1:2019

Customer: UAB „Ecococon“
Odminų str. 10-10 Vilnius, Lithuania
Ph. +370 637 50000

Prepared by: Fire Research Centre
Švitrigailos str. 18, LT-03223 Vilnius, Lithuania

Product name: Wooden frame outside panels with thermoinsulating straw filling, from one side covered with gypsum plaster "Knauf MP 75".

Classification report No.: 20-13.2021.24

Issue number: Exemplar No. 2 (*This document is translation of Lithuanian Classification report No. 20-13.2021.24 Exemplar No. 1, issued on 17th of June 2021*).

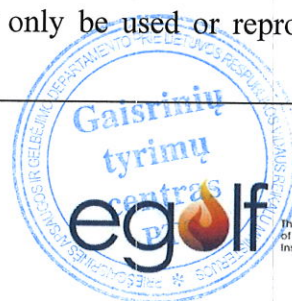
Date of issue: 17th of June 2021

Base: Contract of work performance No. 57-13 (5GB/3KL) and Change No.1.
Request, reg. No. 55-15/21.

This classification report consists of three pages and may only be used or reproduced in its entirety.

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LT-03223 Vilnius
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Products Research Division
Miško str. 7, Valčiūnai vil.,
LT-13221 Vilnius distr.
Ph. +370 5 249 1317
Ph./fax.: +370 5 249 1315



2. Details of classified product

2.1 General

The product, wooden frame outside panels with thermoinsulating straw filling, from one side covered with gypsum plaster "Knauf MP 75" is defined as product used in a building constructions.

2.2 Product description

In accordance with customer declaration object:

- frame, produced from C24 class softwood, 12 mm nominal thickness plywood, producer SIA "Latvijas Finiers", Latvia and metal screws;
- 4,8 mm nominal thickness wood fibre board "Steico underfloor", producer "Steico spolka Z.o.o", Poland, fixed with metal staples between wooden frame and gypsum plaster;
- wooden frame was filled with compressed straw, nominal density 120 kg/m³, nominal thickness 170 mm, straw humidity 15-20 %;
- gypsum plaster "Knauf MP 75", producer "Knauf" Latvia, nominal thickness 25 mm, nominal output 36 kg/m².

For the tests according LST EN 13823:2020 wooden frame with straw filling from the fire affected side was covered with 25 mm thickness gypsum plaster „Knauf MP 75“.

3. Reports and results in support of classification

3.1 Terms

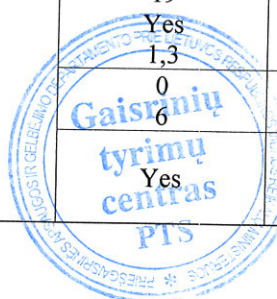
Object, wooden frame outside panels with termoinsulating straw filling, from one side covered with gypsum plaster "Knauf MP 75" according sampling report No. 171-VAG was identified on 26th of April 2021 by VĮ Construction Products Certification centre representative V. Gauronskis and UAB "Ecococon" director M. Tarvydas.

3.2 Reports

Name of Laboratory	Name of sponsor	Report ref. no.	Test method and date Field of application rules and date
Fire Research Centre Products Research Division	UAB „Ecococon”	20-11.2021.3	LST EN 13823:2020
Fire Research Centre Products Research Division	UAB „Ecococon“	20-16.2021.5	LST EN ISO 11925-2:2020

3.2 Results

Test method and test number	Parameter	No. tests	Results	
			Continuous parameter – mean (m)	Compliance with parameters
LST EN ISO 11925-2 Surface flame attack Flame exposition period 30 s	$F_s \leq 150$ mm within 60 s	6	Yes	Compliant
	Ignition of filter paper		No	
LST EN ISO 11925-2 Edge flame attack Flame exposition period 30 s	$F_s \leq 150$ mm within 60 s	8	Yes	Compliant
	Ignition of filter paper		No	
LST EN 13823:2020	$FIGRA_{0,2MJ} \leq 120$ W/s $LFS < \text{edge of specimen}$ $THR_{600s} \leq 7,5$ MJ	3	19 Yes 1,3	Compliant
	$SMOGR_A \leq 30$ m ² /s ² $TSP_{600s} \leq 50$ m ²		0 6	
	Within 600 s there aren't any flaming droplets/particles		Yes	Compliant



4. Classification and field of application

4.1 Reference of classification

This classification has been carried out in accordance with LST EN 13501-1:2019 chapter 11.

4.2.1. Classification

The product, wooden frame outside panels with thermoinsulating straw filling, from one side covered with gypsum plaster "Knauf MP 75" in relation to its reaction to fire behavior 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 reaction to fire classification construction products excluding floorings and linear pipe thermal insulation products is:

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

i.e. B-s1,d0.

Reaction to fire classification: B-s1,d0

4.3 Field of application

This classification is valid for the following end use application:

- panels shall be mounted as free standing or onto any substrate classified of at least A2-s1,d0 according to EN 13501-1.

This classification is valid for in chapter 2.2 listed and additionally for following product parameters:

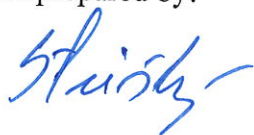
- wooden frame with thermoinsulating straw filling thickness ≥ 170 mm.

5. Limitations

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

Classification Report prepared by:

Chief Specialist
Valdas Striška



Classification Report approved by:

Chief Specialist
Andrejus Jefimovas



Panel with Knauf Green Plasterboard Reaction to Fire Classification (EN 13501-1)

Fire Research Centre, Lithuania · Issued 17 June 2021



FIRE AND RESCUE DEPARTMENT UNDER THE MINISTRY OF THE INTERIOR OF
THE REPUBLIC OF LITHUANIA
FIRE RESEARCH CENTRE
PRODUCTS RESEARCH DIVISION

1. Introduction

This classification report defines the classification assigned to the wooden frame outside panels with thermoinsulating straw filling, from one side covered with gypsum plasterboards "Knauf Green" in accordance with procedures given in LST EN 13501-1:2019

CLASSIFICATION OF REACTION TO FIRE IN ACCORDANCE WITH LST EN 13501-1:2019

Customer: UAB „Ecococon“
Odminių str. 10-10 Vilnius, Lithuania
Ph. +370 637 50000

Prepared by: Fire Research Centre
Švitrigailos str. 18, LT-03223 Vilnius, Lithuania

Product name: Wooden frame outside panels with thermoinsulating straw filling, from one side covered with gypsum plasterboards "Knauf Green".

Classification report No.: 20-12.2021.24

Issue number: Exemplar No. 2 (*This document is translation of Lithuanian Classification report No. 20-12.2021.24 Exemplar No. 1, issued on 17th of June 2021*).

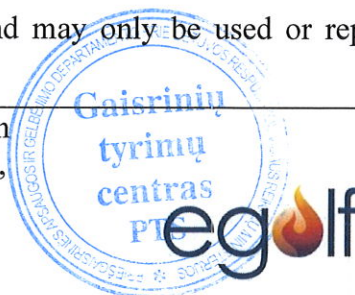
Date of issue: 17th of June 2021

Base: Contract of work performance No. 57-13 (5GB/3KL) and Change No.1.
Request, reg. No. 55-14/21.

This classification report consists of three pages and may only be used or reproduced in its entirety.

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Ph./fax.: +370 5 249 1315



The European Group
of Organisations for Fire Testing,
Inspection and Certification

2. Details of classified product

2.1 General

The product, wooden frame outside panels with thermoinsulating straw filling, from one side covered with gypsum plasterboards "Knauf Green" is defined as product used in a building construction.

2.2 Product description

In accordance with customer declaration object:

- frame, produced from C24 class softwood, 12 mm nominal thickness plywood, producer SIA "Latvijas Finiers", Latvia and metal screws;
- 4,8 mm nominal thickness wood fibre board "Steico underfloor", producer "Steico spolka Z.o.o", Poland, fixed with metal staples between wooden frame and gypsum plasterboard;
- wooden frame was filled with compressed straw, nominal density 120 kg/m³, nominal thickness 180 mm, straw humidity 15-20 %;
- gypsum plasterboard "Knauf Green", producer "Knauf" Latvia, nominal thickness 12,5 mm, nominal area mass 7,7 kg/m²;
- connections between gypsum plasterboards were plastered with gypsum plaster "Knauf Uniflott", producer "Knauf", Latvia. Plaster output 0,25 kg/m, when connection width is 5 cm. to strengthen the connections is used glass cloth tape "Briko", producer UAB "Kesko Senukai", Lithuania, nominal width 48 mm, nominal area mass 65 g/m².

For the tests according LST EN 13823:2020 wooden frame with straw filling from the fire affected side was covered with standard according LST EN 13238:2010 gypsum plasterboard.

3. Reports and results in support of classification

3.1 Terms

Object, wooden frame outside panels with thermoinsulating straw filling, from one side covered with gypsum plasterboards "Knauf Green" according sampling report No. 171-VAG was identified on 26th of April 2021 by VĮ Construction Products Certification centre representative V. Gauronskis and UAB "Ecococon" director M. Tarvydas.

3.2 Reports

Name of Laboratory	Name of sponsor	Report ref. no.	Test method and date Field of application rules and date
Fire Research Centre Products Research Division	UAB „Ecococon“	20-10.2021.3	LST EN 13823:2020
Fire Research Centre Products Research Division	UAB „Ecococon“	20-15.2021.5	LST EN ISO 11925-2:2020

3.2 Results

Test method and test number	Parameter	No. tests	Results	
			Continuous parameter – mean (m)	Compliance with parameters
LST EN ISO 11925-2 Surface flame attack Flame exposition period 30 s	$F_s \leq 150$ mm within 60 s	6	Yes	Compliant
	Ignition of filter paper		No	
LST EN ISO 11925-2 Edge flame attack Flame exposition period 30 s	$F_s \leq 150$ mm within 60 s	8	Yes	Compliant
	Ignition of filter paper		No	
LST EN 13823:2020	$FIGRA_{0,2MJ} \leq 120$ W/s	3	0	Compliant
	$LFS < \text{edge of specimen}$		Yes	
	$THR_{600s} \leq 7,5$ MJ		0,0	Compliant
	$SMOGR_A \leq 30$ m ² /s ²		0,10	
	$TSP_{600s} \leq 50$ m ²			
	Within 600 s there aren't any flaming droplets/particles		Yes	Compliant

4. Classification and field of application

4.1 Reference of classification

This classification has been carried out in accordance with LST EN 13501-1:2019 chapter 11.

4.2.1. Classification

The product, wooden frame outside panels with thermoinsulating straw filling, from one side covered with gypsum plasterboards "Knauf Green" in relation to its reaction to fire behavior 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 reaction to fire classification construction products excluding floorings and linear pipe thermal insulation products is:

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

i.e. B-s1,d0.

Reaction to fire classification: B-s1,d0

4.3 Field of application

This classification is valid for the following end use application:

- panels shall be mounted as free standing or onto any substrate classified of at least A2-s1,d0 according to EN 13501-1.

This classification is valid for in chapter 2.2 listed and additionally for following product parameters:

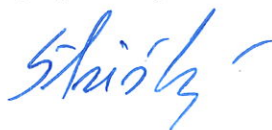
- wooden frame with thermoinsulating straw filling thickness ≥ 180 mm;
- gypsum plasterboard thickness $\geq 12,5$ mm.

5. Limitations

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

Classification Report prepared by:

Chief Specialist
Valdas Striška



Classification Report approved by:

Chief Specialist
Andrejus Jefimovas



Uncovered Panel — No Finish Reaction to Fire Classification (EN 13501-1)

Fire Research Centre, Lithuania · Issued 17 June 2021



PRD

FIRE AND RESCUE DEPARTMENT UNDER THE MINISTRY OF THE INTERIOR OF
THE REPUBLIC OF LITHUANIA**FIRE RESEARCH CENTRE**
PRODUCTS RESEARCH DIVISION**1. Introduction**

This classification report defines the classification assigned to the wooden frame outside panels with thermoinsulating straw filling in accordance with procedures given in LST EN 13501-1:2019

CLASSIFICATION OF REACTION TO FIRE
IN ACCORDANCE WITH LST EN 13501-1:2019

Customer: UAB „Ecococon“
Odminių str. 10-10 Vilnius, Lithuania
Ph. +370 637 50000

Prepared by: Fire Research Centre
Švitrigailos str. 18, LT-03223 Vilnius, Lithuania

Product name: Wooden frame outside panels with thermoinsulating straw filling.
In accordance with customers declaration the system composes of frame, produced from C24 class softwood, 12 mm nominal thickness plywood, producer SIA “Latvijas Finiers”, Latvia and metal screws, frame was filled with compressed straw, nominal density 120 kg/m³, straw humidity 15-20 %;

Classification report No.: 20-14.2021.24

Issue number: Exemplar No. 2 (*This document is translation of Lithuanian Classification report No. 20-14.2021.24 Exemplar No. 1, issued on 17th of June 2021*).

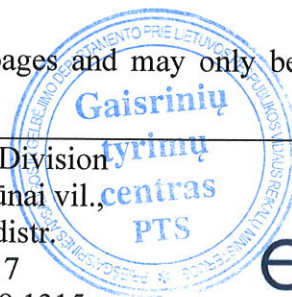
Date of issue: 17th of June 2021

Base: Contract of work performance No. 57-13 (5GB/3KL) and Change No.1.
Request, reg. No. 55-13/21.

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Ph./fax.: +370 5 249 1315



The European Group
of Organisations for Fire Testing,
Inspection and Certification

2. Details of classified product

2.1 General

The product, wooden frame outside panels with thermoinsulating straw filling, is defined as product used in a building constructions.

For the tests according LST EN 11925-2:2020 instead of the softwood frame standard according LST EN 13238:2010 plywood frame was used, which was filled with compressed straw, thickness of the specimens 60 mm.

3. Reports and results in support of classification

3.1 Terms

Object, wooden frame outside panels with thermoinsulating straw filling, according sampling report No. 171-VAG was identified on 26th of April 2021 by VĮ Construction Products Certification centre representative V. Gauronskis and UAB "Ecococon" director M. Tarvydas.

3.2 Reports

Name of Laboratory	Name of sponsor	Report ref. no.	Test method and date Field of application rules and date
Fire Research Centre Products Research Division	UAB „Ecococon“	20-14.2021.5	LST EN ISO 11925-2:2020

3.2 Results

Test method and test number	Parameter	No. tests	Results	
			Continuous parameter – mean (m)	Compliance with parameters
LST EN ISO 11925-2 Surface flame attack Flame exposition period 15 s	$F_s \leq 150$ mm within 20 s	6	Yes	Compliant
	Ignition of filter paper		No	Compliant

4. Classification and field of application

4.1 Reference of classification

This classification has been carried out in accordance with LST EN 13501-1:2019 chapter 11.

4.2.1. Classification

The product, wooden frame outside panels with thermoinsulating straw filling in relation to its reaction to fire behavior is classified:

E

The format of reaction to fire classification construction products excluding floorings and linear pipe thermal insulation products is:

Fire behaviour		Smoke production		Flaming droplets
E	-	-	-	-

i.e. E

Reaction to fire classification: E

4.3 Field of application

This classification is valid for the following end use application:

- panels shall be mounted as free standing or onto any substrate classified of at least A2-s1,d0 according to EN 13501-1.

This classification is valid for in chapter 2.2 listed and additionally for following product parameters:

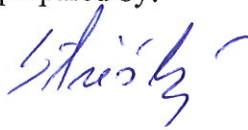
- wooden frame with thermoinsulating straw filling thickness ≥ 60 mm.

5. Limitations

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

Classification Report prepared by:

Chief Specialist
Valdas Striška



Classification Report approved by:

Chief Specialist
Andrejus Jefimovas

