

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

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Sponsor: Teknos AS.

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Manufacturer: Teknos AB.

Address: Industrigatan 7, 711 72 Vedevåg, Sweden.

Owner of test report: Teknos AS Denmark.

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*).

Product name: Teknosafe Flame Guard 2457-10.

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.

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1. Introduction

This classification report defines the reaction to fire classification assigned to Teknosafe Flame Guard 2457-10 in accordance with the procedures given in EN 13501-1:2018.

2. Details of classified product

2.1. General

Teknosafe Flame Guard 2457-10 is defined as fire retardant treatment for wood-based products - wood based panels according to product standard EN 13986:2004 + A1:2015 or solid wood panelling and cladding according to product standard EN 14915:2013+A1:2017.

2.2. Product description

- Product name: Teknosafe Flame Guard 2457-10.
- Manufacturer: Teknos AB.
- Materials used for manufacturing:
 - spruce plywood with 450 kg/m³ density;
 - chipboard with 720 kg/m³ density;
 - fire retardant paint Teknosafe flame guard 2457-10 with consumption 258 g/m²;
 - additional top coating on spruce plywood: Teknocoat Aqua 1864-62 with consumption 50 g/m² or Uvilux 651-14120 with consumption 11 g/m².
- Nominal thickness tested: 9 mm (plywood) and 12 mm (chipboard).
- Colour: yellow with maximum organic content of TOP-NCS-S0540Y20R / AV – 57.3 ml / 0.9 litre.

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	Teknos AS	5256-1/2021	EN 13823:2020
SIA „ Meža un koksnes produktu pētniecības un attīstības institūts” Testing Laboratory	Teknos AS	5256-2/2021	EN ISO 11925-2:2020

3.3. Test results

Test method	Parameter	Number of tests	Results	
			Continuous parameter mean	Compliance parameters
EN 13823:2020	<i>FIGRA</i> _{0,2MJ} (W/s)	3 ^a	73.1	(-)
	<i>FIGRA</i> _{0,4MJ} (W/s)		73.1	(-)
	<i>THR</i> _{600s} (MJ)		5.2	(-)
	<i>LFS</i>		(-)	Compliant
	<i>SMOGRA</i> (m ² /s ²)		4.7	(-)
	<i>TSP</i> _{600s} (m ²)		31.2	(-)
	Flaming droplets <10s Flaming droplets >10s		(-) (-)	Compliant Compliant
EN 13823:2020	<i>FIGRA</i> _{0,2MJ} (W/s)	3 ^b	89.8	(-)
	<i>FIGRA</i> _{0,4MJ} (W/s)		89.8	(-)
	<i>THR</i> _{600s} (MJ)		7.5	(-)
	<i>LFS</i>		(-)	Compliant
	<i>SMOGRA</i> (m ² /s ²)		3.3	(-)
	<i>TSP</i> _{600s} (m ²)		32.2	(-)
	Flaming droplets <10s Flaming droplets >10s		(-) (-)	Compliant Compliant
EN ISO 11925-2:2020 Exposure time 30 s. Test duration 60 s.	Flame spread (Fs)	24	(-)	Compliant
	Ignition of filter paper		(-)	Compliant
	Flaming droplets/particles		(-)	Compliant
(-) not applicable				
^a Test results from specimens on standard plywood substrate (No. 5256-1-1, 5256-1-4...5256-1-5).				
^b Test results from specimens on standard chipboard substrate (No. 5256-1-6...5256-1-8).				

Test results for plywood specimens with additional coatings

Specimen No.	5256-1-2	5256-1-3
<i>FIGRA</i> _{0,2MJ} , W/s	92.4	57.3
<i>FIGRA</i> _{0,4MJ} , W/s	92.4	57.3
<i>THR</i> _{600s} , MJ	6.6	4.8
<i>SMOGRA</i> , m ² /s ²	Threshold not reached	Threshold not reached
<i>TSP</i> _{600s} , m ²	34.4	25.2
Specimen No.	Primer name and consumption	Coating name and consumption
5256-1-2	Teknosafe Flame Guard 2457-10	Teknocoat Aqua 1864-62
5256-1-3	Teknosafe Flame Guard 2457-10	Uvilux 651-14120

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

Teknosafe Flame Guard 2457-10 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 is intended to use as fire retardant treatment for wood-based products.

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

1)

- Applied on any substrate of all wood products (panels according to EN 13986 or solid wood EN 14915, NB-CPR/SH02/19/832r2 paragraph 5.2.4), with a minimum thickness of 8 mm and with a minimum density of 338 kg/m³ and of class D-s2,d0 or better;
- In the case of cladding products manufactured in accordance with EN 14915 the minimum thickness at any point of the profile must not be less than 8 mm;
- With horizontal and vertical joints;
- Mounted vertically or horizontally;
- With the substrate mounted directly on a to 2nd substrate of any A1 or A2-s1,d0 products with min. 12 mm thickness, min. 510 kg/m³ density or any wood product with min. 12 mm thickness and, min. 510 kg/m³ density of D-s2, d0 or better;
- Valid for any tone of colour;
- With and without additional coating system tested.

2)

- Applied on any substrate of all wood products (panels according to EN 13986 or solid wood EN 14915, NB-CPR/SH02/19/832r2 paragraph 5.2.4), with a minimum thickness of 10 mm and a minimum density of 510 kg/m³ of D-s2,d0 or better;
- In the case of cladding products manufactured in accordance with EN 14915 the minimum thickness at any point of the profile must not be less than 10 mm;
- With horizontal and vertical joints;
- Mounted vertically or horizontally;
- Mounted with a non-ventilated air gap to a 2nd substrate of any A1 or A2-s1,d0 and with the air gap constructed by wooden battens of class D-s2,d0 or better or any A1 or A2-s1,d0 product with a minimum density of 525 kg/m³;
- Valid for any tone of colour.

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



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Reviewed by



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