Forest and Wood Products Research and Development Institute

EN ISO/IEC 17025
T-316

Classification of reaction to fire in accordance with EN 13501-1:2018

Issue number: K7/2026

Date of issue: 17.02.2026.

Sponsor: Teknos A/S.
Address: Industrivej 19, DK 6580 Vamdrup, Denmark.
Reg. No. DK85551612.

Manufacturer and owner of the classification report: Teknos A/S.

Classification done by: Meža un koksnes produktu pētniecības un attīstības institūts SIA *(Forest and Wood Products Research and Development Institute)*, Testing laboratory "Pienavas katlu māja", Pienava, Džūkstes pagasts, Tukuma novads, LV-3147, Latvia *("Pienava heat plant", Pienava, Džūkste parish, Tukums region, LV-3147, Latvia*).

Product name: TEKNOSAFE FLAME GUARD 2467-10 family.

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.

1. Introduction

This classification report defines the reaction to fire classification assigned to TEKNOSAFE FLAME GUARD 2467-10 family in accordance with the procedures given in EN 13501-1:2018.

2. Details of classified product

2.1. General

TEKNOSAFE FLAME GUARD 2467-10 family is defined as a 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.

2.2. Product description

- Product name: TEKNOSAFE FLAME GUARD 2467-10 family.
- Manufacturer of coatings: Teknos A/S.
- Materials used for manufacturing:
  - spruce plywood with density 450 kg/m^3;
  - solid wood spruce wood boards/ panels with density ≥ 390 kg/m^3;
  - particleboard with 720 kg/m^3 density;
  - fire retardant paint TEKNOSAFE FLAME GUARD 2467-10 with minimal consumption 250 g/m^2 (wet weight);
- Tested coating variables on substrates:

Substrate	Basecoat, g/m^2	Topcoat, g/m^2
Spruce plywood with particleboard	TEKNOSAFE FLAME GUARD 2467-10, 250 g/m^2	-
Spruce plywood with particleboard	TEKNOSAFE FLAME GUARD 2467-10, 250 g/m2	TEKNOSAFE FLAME PROTECT 2468-00, 100 g/m^2
Spruce plywood with particleboard	TEKNOSAFE FLAME GUARD 2467-10, 250 g/m^2	TEKNOCOAT AQUA 1864-62, 45 g/m^2
Spruce plywood with particleboard	TEKNOSAFE FLAME GUARD 2467-10, 250 g/m^2	UVILUX 651, 12 g/m^2
Spruce wood boards/ panels	TEKNOSAFE FLAME GUARD 2467-10, 250 g/m^2	TEKNOSAFE FLAME PROTECT 2468-00, 100 g/m^2
Spruce plywood with particleboard	TEKNOSAFE FLAME GUARD 2467-10, 250 g/m^2	TEKNOSAFE FLAME PROTECT 2478-00, 100 g/m^2
Spruce plywood with particleboard	UV SEALER 1456-11 (Clear), 20 g/m^2 and TEKNOSAFE FLAME GUARD 2467-10, 250 g/m^2	-
Particleboard	TEKNOSAFE FLAME GUARD 2467-10, 250 g/m^2	-
Spruce plywood with particleboard	TEKNOSAFE FLAME GUARD 2467-10, 250 g/m^2	TEKNOLUX AQUA 1429-12, 65 g/m^2
Spruce plywood with particleboard	TEKNOSAFE FLAME GUARD 2467-10, 250 g/m^2	TEKNOCOAT AQUA 2580-22, 65 g/m^2
Spruce plywood with particleboard	TEKNOSAFE FLAME GUARD 2467-10, 250 g/m^2	TEKNOLUX AQUA 1728-1x, 65 g/m^2

- Coating application method: by spraying on three sides, back side untreated.
- Nominal thickness tested: 9 mm (plywood), 18 mm (spruce wood boards/ panels) and 12 mm (particleboard).
- Tested colour: RAL 4007 (purple).

3. Test reports and test results in support of classification

3.1. Specific conditions (*applicable only if performed using facilities outside the testing laboratory)*

3.2. Test reports

Name of laboratory	Name of sponsor	Test reports	Test method
RISE Research Institutes of Sweden AB	Teknos A/S	O100352-147289-2	EN 13823:2020 and EN ISO 11925-2:2022
RISE Research Institutes of Sweden AB	Teknos A/S	O100352-147289-5	EN 13823:2020
RISE Research Institutes of Sweden AB	Teknos A/S	O100352-147289-6	EN 13823:2020
RISE Research Institutes of Sweden AB	Teknos A/S	O100352-147289-11	EN 13823:2020
SIA „ Meža un koksnes produktu pētniecības un attīstības institūts" Testing Laboratory	Teknos A/S	E1355-2/2025 (EXAP report)	EN 13823:2020+A1:2022

Sampling was done according to AVCP 1 by Bas Holleboom (SKH BV) and Norwegian Institute of Wood Technology.

3.3. Test results

Test method	Parameter	Number of tests	Results	
			Continuous parameter mean	Compliance parameters
EN 13823:2020	*FIGRA*$_{0,2MJ}$(W/s)	3[a] 1[b] 1[c] 1[d] 1[e]	66[a] 53[b] 79[c] 51[d] 66[e]	(-)
	FIGRA$_{0,4MJ}$(W/s)		66[a] 53[b] 79[c] 51[d] 44[e]	(-)
	THR$_{600s}$(MJ)		5.7[a] 5.6[b] 5.9[c] 5[d] 4.5[e]	(-)
	LFS < edge of specimen		yes	Compliant
	SMOGRA(m^2/s^2)		2.8[a] 0[b] 3.8[c] 4.9[d] 2[e]	(-)
	TSP$_{600s}$(m^2)		41[a] 41[b] 38[c] 34[d] 42[e]	(-)
	Flaming droplets <10s Flaming droplets >10s		no no	Compliant Compliant
EN ISO 11925-2:2020 Exposure time 30 s. Test duration 60 s.	Flame spread (Fs) ≤ 150 mm	12[a]	yes	Compliant
	Ignition of filter paper		no	Compliant
	Flaming droplets/particles		no	Compliant

Teste results according RISE Research Institutes of Sweden AB test reports:
[a] Test report No. O100352-147289-2 (dated 11.11.2021.), TEKNOSAFE FLAME GUARD 2467-10;
[b] Test report No. O100352-147289-2 (dated 11.11.2021.), TEKNOSAFE FLAME GUARD 2467-10 + TEKNOSAFE FLAME PROTECT 2468-00 on spruce plywood with particleboard substrate;
[c] Test report No. O100352-147289-5 (dated 11.11.2021.), TEKNOSAFE FLAME GUARD 2467-10 + TEKNOCOAT AQUA 1864-62;
[d] Test report No. O100352-147289-6 (dated 11.11.2021.), TEKNOSAFE FLAME GUARD 2467-10 + UVILUX 651;
[e] Test report No. O100352-147289-11 (dated 07.02.2022.), TEKNOSAFE FLAME GUARD 2467-10 + TEKNOSAFE FLAME PROTECT 2468-00 on spruce solid wood boards/ panels substrate.

Test results according to REACTION TO FIRE EXTENDED APPLICATION REPORT No. E1355-2/2025 for surface coating or facing, preference of air gaps/ cavities and additional surface coating:

Specimen No.	8191-1-6	8191-1-10	8191-1-28	8191-1-29	8191-1-32	1355-1-3
$FIGRA_{0,2MJ}$, W/s	50.3	111.9	71.8	108.9	86.2	90.0
$FIGRA_{0,4MJ}$, W/s	50.3	111.9	66.5	78.5	86.2	62.0
THR_{600s}, MJ	4.8	7.1	6.1	7.0	6.8	5.8
SMOGRA, m^2/s^2	2.5	7.2	Threshold not reached			2.7
TSP_{600s}, m^2	32.2	35.4	25.9	29.3	36.1	37.6
LFS< edge of specimen	yes	yes	yes	yes	yes	yes
Flaming droplets <10s	no	no	no	no	no	no
Flaming droplets >10s	no	no	no	no	no	no

Reports No.	Specimen identification
8191-1-6	UV SEALER 1456-11 (Clear), 20 g/m²; TEKNOSAFE FLAME GUARD 2467-10, 250 g/m² (RAL 4007); on spruce plywood with particleboard and with ventilated air gap
8191-1-10	TEKNOSAFE FLAME GUARD 2467-10, 250 g/m² (RAL 4007); on particleboard and with ventilated air gap
8191-1-28	TEKNOSAFE FLAME GUARD 2467-10, 250 g/m² (RAL 4007); TEKNOLUX AQUA 1429-12, 65 g/m² (RAL 4007); on spruce plywood with particleboard and with ventilated air gap
8191-1-29	TEKNOSAFE FLAME GUARD 2467-10, 250 g/m² (RAL 4007); TEKNOCOAT AQUA 2580-22, 65 g/m² (RAL 4007); on spruce plywood with particleboard and with ventilated air gap
8191-1-32	TEKNOSAFE FLAME GUARD 2467-10, 250 g/m² (RAL 4007); TEKNOSAFE FLAME PROTECT 2478-00, 100 g/m² (RAL 4007); on spruce plywood with particleboard and with ventilated air gap
1355-1-3	TEKNOSAFE FLAME GUARD 2467-10 Base T, 250 g/m² (RAL 4007); TEKNOLUX AQUA 1728-1x, 65 g/m²; on spruce plywood with particleboard and with ventilated air gap

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 2467-10 family 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 except 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

4.3.1. Classification valid for following product variations:
Product primary is intended to be used as fire retardant treatment for wood-based products.

4.3.2. Classification valid for the following product end-use applications:
Coatings:

- valid for coating system as tested, with or without tested topcoat applied by spray, roller, curtain coater, brush, or hand roller.

Substrates:

- applied to a wood substrate in accordance with EN 13986 or EN 14915 of at least class D-s2,d0 with a thickness of at least 18 mm and a substrate density ≥ 433 kg/m^3.

or

- applied to a first wood substrate in accordance with EN 13986 or EN 14915 of at least class D-s2,d0 with a thickness of at least 8 mm and a density ≥ 338 kg/m^3. The first substrate shall be mounted directly to a second wood-based substrate in accordance with EN 13238 at least of class D-s2,d0 with a thickness of at least 12 mm and a density ≥ 510 kg/m^3;

or

- applied to a first wood-based substrate in accordance with EN 13986 or EN 14915 of at least class D-s2,d0 with a thickness of at least 8 mm and a density ≥ 338 kg/m^3. The first substrate shall be mounted directly to a second substrate of gypsum plaster board or any end-use substrate of class A1 or A2-s1, d0 with a thickness of at least 12 mm and a density ≥ 510 kg/m^3.

or

- applied to a first wood-based substrate in accordance with EN 13986 or EN 14915 of at least class D-s2, d0 with a thickness of at least 12 mm and a density ≥ 510 kg/m^3.

Mounting:

- mounted with or without a ventilated or unventilated air gap. The substrate behind the product shall consist of mineral wool with class A1 and a thickness of at least 20 mm and a density ≥ 30 kg/m^3 or a gypsum plasterboard (paper-faced) or any end-use substrate of class A1 or A2-s1, d0 with a thickness of at least 12 mm and a density ≥ 510 kg/m^3;
- valid for product mounting on untreated wood construction of at least class D-s2,d0 or other A1 or A2-s1,d0 class products;
- valid for mechanically fixing;
- valid for product application with standard vertical and horizontal joints;
- valid for vertical and horizontal arrangements.

Color:

- valid for all colour tones*.

* According to sponsor-provided Extended application report No. PHB10114A dated 04.12.2020. on which was established TEKNOS paint worst case colour tone for classification.

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.

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