

REACTION TO FIRE CLASSIFICATION FIRES-CR-045-23-NURS

CETRIS® cement bonded particleboard without surface finish (BASIC, INCOL, AKUSTIC, PROFIL) and with surface finish (PLUS, FINISH, LASUR, DEKOR)

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REACTION TO FIRE CLASSIFICATION with definition of extended application of test results

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Product name: CETRIS® cement bonded particleboard without surface finish (BASIC, INCOL, AKUSTIC, PROFIL) and with surface finish (PLUS, FINISH, LASUR, DEKOR)

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1. INTRODUCTION

This classification report defines the reaction to fire classification of the product CETRIS® cement bonded particleboard without surface finish (BASIC, INCOL, AKUSTIC, PROFIL) and with surface finish (PLUS, FINISH, LASUR, DEKOR) using the classes given in EN 13501-1: 2018. The extended application of the test results is set out in the extended application report [1] referred to in clause 3.1 of this document. The extended application report was prepared in accordance with STN P CEN/TS 15117: 2020.

2. DETAILS OF THE CLASSIFIED PRODUCT

2.1 GENERAL

The product CETRIS® cement bonded particleboard without surface finish (BASIC, INCOL, AKUSTIC, PROFIL) and with surface finish (PLUS, FINISH, LASUR, DEKOR) is used for vertical and horizontal building structures, non-load-bearing walls and partitions, wall linings, lining walls, shaft walls, load-bearing and non-load-bearing external walls, floor systems, raised floors, claddings of timber and steel structures to increase fire resistance, as a membrane of suspended ceilings according to EN 13964; in the CETRIS® AKUSTIC version, the board is used as an acoustic wall and ceiling lining which, in combination with mineral wool placed behind the boards, is fixed to a steel supporting structure.

2.2 PRODUCT DESCRIPTION

CETRIS® cement bonded particleboard without surface finish (BASIC, INCOL, AKUSTIC, PROFIL) and with surface finish (PLUS, FINISH, LASUR, DEKOR) consists of wood matter, cement, water, hydration additives and surface finish. In the CETRIS® AKUSTIC type, the board has drilled holes of 12 mm diameter, evenly distributed over the whole board surface at a spacing of 32 mm. Content of individual components in CETRIS® boards (in wt. %)

- wood chips 19 %;
- cement 69 %;
- water 10 %;
- hydration additives 2 %.

Content of individual components in CETRIS® INCOL boards (in wt. %)

- wood chips 17 %;
- cement 66 %;
- liquid pigment 5 %
- water 10 %;
- hydration additives 2 %.

Board thickness: 8 mm to 40 mm.

Density: CETRIS®, CETRIS® INCOL (1450 ±50) kg.m⁻³.

CETRIS® INCOL boards can replace all CETRIS® / CETRIS® AKUSTIC boards of 12 mm thickness.

CETRIS® cement bonded particleboards are also offered without surface finish (BASIC, INCOL, AKUSTIC, PROFIL) and are produced with the following surface finishes:

BASIC (substantial component)	smooth surface, without surface finish;
PROFIL (substantial component)	with relief surface, without surface finish;
AKUSTIC (substantial component)	smooth surface, regularly drilled holes;

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INCOL (substantial component)	smooth surface, mix coloured with black pigment
PLUS (non-substantial component)	smooth surface, with surface finish: primer BTAitop 1000A/CRT, mass per area (140 – 220) g/m² (in wet state), applied to the face/back of the board and its edges, dry matter content min. 52 wt. % (manufacturer: BTA Industry, a.s., Czech Republic);
PROFIL PLUS	with relief surface, with surface finish: primer BTAitop 1000A/CRT, mass per area (140 – 220) g/m² (in wet state), applied to the face/back of the board and its edges, dry matter content min. 52 wt. % (manufacturer: BTA Industry, a.s., Czech Republic);
FINISH (non-substantial component)	smooth surface, with surface finish: - primer BTAitop 1000A/CRT, mass per area (200 – 250) g/m² (in wet state), applied to the face/back of the board and its edges, dry matter content min. 52 wt. % (manufacturer: BTA Industry, a.s., Czech Republic); - primer BTAi EP 3000 AB, mass per area (110 – 130) g.m⁻² (in wet state), applied to the face and edges of the board, dry matter content min. 56 wt. % (manufacturer: BTA Industry, a.s., Czech Republic); - top coat BTAitop 1000A/CTS, mass per area (160 – 200) g/m² (in wet state), applied to the face and edges of the board, dry matter content min. 52 wt. % (manufacturer: BTA Industry, a.s., Czech Republic);
FINISH PROFIL	with relief on the face, with surface finish: - primer BTAitop 1000A/CRT, mass per area (200 – 250) g/m² (in wet state), applied to the face/back of the board and its edges, dry matter content min. 52 wt. % (manufacturer: BTA Industry, a.s., Czech Republic); - primer BTAi EP 3000 AB, mass per area (110 – 130) g.m⁻² (in wet state), applied to the face and edges of the board, dry matter content min. 56 wt. % (manufacturer: BTA Industry, a.s., Czech Republic); - top coat BTAitop 1000A/CTS, mass per area (160 – 200) g/m² (in wet state), applied to the face and edges of the board, dry matter content min. 52 wt. % (manufacturer: BTA Industry, a.s., Czech Republic);
AKUSTIC FINISH	smooth surface, regularly drilled holes, with surface finish: - primer BTAitop 1000A/CRT, mass per area (200 – 250) g/m² (in wet state), applied to the face/back of the board and its edges, dry matter content min. 52 wt. % (manufacturer: BTA Industry, a.s., Czech Republic); - primer BTAi EP 3000 AB, mass per area (110 – 130) g.m⁻² (in wet state), applied to the face and edges of the board, dry matter content min. 56 wt. % (manufacturer: BTA Industry, a.s., Czech Republic); - top coat BTAitop 1000A/CTS, mass per area (160 – 200) g/m² (in wet state), applied to the face and edges of the board, dry matter content min. 52 wt. % (manufacturer: BTA Industry, a.s., Czech Republic);
LASUR (non-substantial component)	smooth surface, with surface finish: - primer BTAitop 1000A/CRT, mass per area (200 – 250) g/m² (in wet state), applied to the face/back of the board and its edges, dry matter content min. 52 wt. % (manufacturer: BTA Industry, a.s., Czech Republic); - primer BTAi EP 3000 AB, mass per area (110 – 130) g.m⁻² (in wet state), applied to the face and edges of the board, dry matter content min. 56 wt. % (manufacturer: BTA Industry, a.s., Czech Republic); - glaze lacquer BTAitop 1000A/CTS-lazura, mass per area (160 – 200) g/m² (in wet state), applied to the face and edges of the board, dry matter content min. 38 wt. % (manufacturer: BTA Industry, a.s., Czech Republic);



PROFIL LASUR	with relief on the face, with surface finish: - primer BTAitop 1000A/CRT, mass per area (200 – 250) g/m² (in wet state), applied to the face/back of the board and its edges, dry matter content min. 52 wt. % (manufacturer: BTA Industry, a.s., Czech Republic); - primer BTAi EP 3000 AB, mass per area (110 – 130) g.m⁻² (in wet state), applied to the face and edges of the board, dry matter content min. 56 wt. % (manufacturer: BTA Industry, a.s., Czech Republic); - glaze lacquer BTAitop 1000A/CTS-lazura, mass per area (160 – 200) g/m² (in wet state), applied to the face and edges of the board, dry matter content min. 38 wt. % (manufacturer: BTA Industry, a.s., Czech Republic);
DEKOR (substantial component)	§ water-based primer HC-4, mass per area 150 g.m⁻² (in wet state), applied to the face, back and edges of the board, dry matter content at least 60 wt. % (manufacturer: Stomix, a.s., Czech Republic); § water-based acrylic mosaic decorative render Alfadekor G, mass per area 4500 g.m⁻² (in wet state), applied wet to the face of the board, grain size (1.2 – 1.8) mm, dry matter content at least 70 wt. % (manufacturer: Stomix, a.s., Czech Republic).

3. EXTENDED APPLICATION REPORTS AND TEST RESULTS USED FOR THIS CLASSIFICATION

3.1 EXTENDED APPLICATION REPORTS

Ref. No.	Laboratory	Sponsor	Report No.	Date of issue
[1]	FIRES, s.r.o., Batizovce, SK	CIDEM Hranice, a.s., Hranice, CZ	FIRES-ER-024-23-NURS	24. 02. 2023

4. CLASSIFICATION AND FIELD OF APPLICATION

4.1 REFERENCE OF CLASSIFICATION

This classification has been carried out using the classes according to clauses 11.6 and 11.7 of EN 13501-1: 2018.

4.2 CLASSIFICATION

4.2.1

The product CETRIS® cement bonded particleboard without surface finish (BASIC, INCOL, AKUSTIC, PROFIL), in relation to its reaction to fire behaviour, is classified:

A2

Additional classification in relation to smoke production:

s1

Additional classification in relation to flaming droplets/particles:

d0

The format of the reaction to fire classification for construction products excluding floorings is:

Fire behaviour		Smoke production			Flaming droplets	
A2	-	s	1	,	d	0

Reaction to fire classification: A2 - s1, d0

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4.2.2

The product CETRIS® cement bonded particleboard with surface finish (PLUS, FINISH, LASUR, DEKOR), in relation to its reaction to fire behaviour, is classified:

B

Additional classification in relation to smoke production:

s1

Additional classification in relation to flaming droplets/particles:

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 extended application is valid for the product described in clause 2.2 and its end use:

- i) in horizontal (except floorings) and vertical position;
- ii) without surface finish;
- iii) with surface finish according to clause 2.2 (all colour shades);
- iv) without cavity;
- v) with cavity;
- vi) with timber supporting structure;
- vii) with steel supporting structure;
- viii) with unfilled board joints;
- ix) with filled board joints

This extended application is also valid for the following product parameters:

Thickness	- the thickness of CETRIS® cement bonded particleboards in the versions (BASIC, INCOL, AKUSTIC) may vary from 8 mm to 40 mm, the CETRIS® PROFIL board from 10 mm to 40 mm; - the thickness of mineral wool may vary; - coating thicknesses may vary within production tolerances;
Density [kg/m ³]	- the density of CETRIS® cement bonded particleboards in the versions (BASIC, INCOL, AKUSTIC, PROFIL) may vary within production tolerances; - the density of mineral wool may be increased;
Mass per unit area [kg/m ²]	- the mass per unit area of coatings may only decrease, not increase compared with the data given in clause 2.2; the maximum masses per unit area of coatings are given in the table in clause 2.2
Product composition	- the content of individual board components according to clause 2.2 must not change; - only coatings according to clause 2.2 may be used for the board surface finish; - only mineral wool with a minimum reaction to fire class of A2-s1, d0 may be used as insulation; - suspended ceilings according to EN 13964 are made with/without a cavity above the membrane; only mineral wool of reaction to fire class A1 may be used as insulation; - the supporting structure may be made of timber, wood-based materials and steel, or other materials of reaction to fire class A1;

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5. LIMITATIONS

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

The classification is valid provided that the product, its field of application and the standards under which it was carried out do not change.

Approved by:

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Prepared by:

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