SENTINEL HOLDING
INSTITUT

SHI PRODUCT PASSPORT

Find products. Certify buildings.

SHI Product Passport No.:

2843-10-1000

Zementgebundene Spanplatte Cetris

Product group: Dry screed - OSB & chipboard - Particle board

BAUSAL
Ihr Partner für Lösungen mit innovativen Baustoffen

Bausal GmbH - Cetris Deutschland
Rollenhagen 7a
17237 Blankensee

Product qualities:

- SHI Product Assessment 2024 ✓
- QNG Qualitätssiegel Nachhaltiges Gebäude ✓
- DGNB NEW CONSTRUCTION 2023 ✓
- DGNB NEW CONSTRUCTION 2018 ✓
- BNB-BN NEUBAU V2015 ✓
- EU taxonomy ✓
- BREEAM DE NEUBAU 2018 ✓
- LEED v4.1 (outside US) ✓

CERTIFIED SUSTAINABLE PRODUCT – SHI PRODUCT PASSPORT – SENTINEL HOLDING INSTITUT – www.sentinel-holding.eu

Köttner

Helmut Köttner
Scientific Director
Freiburg, 30 March 2026

Product:
Zementgebundene Spanplatte Cetris

SHI Product Passport no.:
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The SHI Database is the first and only database for construction products whose comprehensive processes and data accuracy are regularly verified by the independent auditing company SGS-TÜV Saar

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Product:
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SHI Product Assessment 2024

Since 2008, Sentinel Holding Institut GmbH (SHI) has been establishing a unique standard for products that support healthy indoor air. Experts carry out independent product assessments based on clear and transparent criteria. In addition, the independent testing company SGS regularly audits the processes and data accuracy.

Criteria	Product category	Harmful substance limit	Assessment
SHI Product Assessment	Wood materials	TVOC ≤ 300 µg/m^3 Formaldehyd ≤ 36 µg/m^3	Indoor Air Quality Certified
Valid untill: 03 August 2027			

Product:
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QNG - Qualitätssiegel Nachhaltiges Gebäude

The Qualitätssiegel Nachhaltiges Gebäude (Quality Seal for Sustainable Buildings), developed by the German Federal Ministry for Housing, Urban Development and Building (BMWSB), defines requirements for the ecological, socio-cultural, and economic quality of buildings. The Sentinel Holding Institut evaluates construction products in accordance with QNG requirements for certification and awards the QNG ready label. Compliance with the QNG standard is a prerequisite for eligibility for the KfW funding programme. For certain product groups, the QNG currently has no specific requirements defined. Although classified as not assessment-relevant, these products remain suitable for QNG-certified projects.

Criteria	Pos. / product group	Considered substances	QNG assessment
3.1.3 Schadstoffvermeidung in Baumaterialien	9.1 Wood-based materials (plywood, OSB, and HPL)	Formaldehyde / VOC / emissions / hazardous substances / SVHC: boron compounds	QNG ready
Verification: Prüfbericht des Instituts SGS INSTITUT FRESENIUS GmbH vom 28.07.2021. Konformitätserklärung vom 04.08.2023 bestätigt die materielle Übereinstimmung mit dem geprüften Produkt. Herstellererklärung vom 03.11.2021			

Criteria	Assessment
ANF2-WG1 Nachhaltige Materialgewinnung	May positively contribute to the overall building score
Verification: PEFC-Zertifikat vom 18.03.2022	

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DGNB New Construction 2023

The DGNB System (German Sustainable Building Council) assesses the sustainability of various types of buildings. It can be applied to both large-scale private and commercial projects as well as smaller residential buildings. The 2023 version sets high standards for ecological, economic, socio-cultural, and functional aspects throughout the entire life cycle of a building.

Criteria	No. / Relevant building components / construction materials / surfaces	Considered substances / aspects	Quality level
ENV 1.2 Local environmental impact, 03.05.2024 (3rd edition)	47 Coated and uncoated wood-based materials: particle board, blockboard, veneer panels, fibreboard	Formaldehyde emissions	Quality level 4
Verification: Prüfbericht des Instituts SGS INSTITUT FRESENIUS GmbH vom 28.07.2021. Konformitätserklärung vom 04.08.2023 bestätigt die materielle Übereinstimmung mit dem geprüften Produkt.			

Criteria	Quality level
ENV1.3 Responsible resource extraction	May positively contribute to the overall building score
Verification: PEFC-Zertifikat vom 18.03.2022	

Criteria	Assessment
SOC1.2 Indoor air quality (*)	May positively contribute to the overall building score
Verification: SHI-Schadstoffgeprüft	

Criteria	Assessment
ENV1.1 Climate action and energy (*)	May positively contribute to the overall building score

Criteria	Assessment
ECO1.1 Life cycle cost (*)	May positively contribute to the overall building score

Criteria	Assessment
ECO2.6 Climate resilience (*)	May positively contribute to the overall building score
Verification: Bezüglich des Radonschutzes: Beton ist kompakt, etwas sicher, genau nicht gemessen	

Criteria	Assessment
SOC1.1 Thermal comfort (*)	May positively contribute to the overall building score

Criteria	Assessment
SOC1.3 Sound insulation and acoustic comfort (*)	May positively contribute to the overall building score

Criteria	Assessment
SOC2.1 Barrier-free design (*)	May positively contribute to the overall building score

Criteria	Assessment
TEC1.3 Quality of the building envelope (*)	May positively contribute to the overall building score

Criteria	No. / Relevant building components / construction materials / surfaces	Considered substances / aspects	Quality level
ENV 1.2 Local environmental impact, 29.05.2025 (4th edition)	Coated and uncoated wood-based materials	VVOC, VOC, SVOC emissions	Quality level 4
Verification: Prüfbericht des Instituts SGS INSTITUT FRESENIUS GmbH vom 28.07.2021. Konformitätserklärung vom 04.08.2023 bestätigt die materielle Übereinstimmung mit dem geprüften Produkt.			

Product:
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DGNB New Construction 2018

The DGNB System (German Sustainable Building Council) assesses the sustainability of various types of buildings. It can be applied to both large-scale private and commercial projects as well as smaller residential buildings.

Criteria	No. / Relevant building components / construction materials / surfaces	Considered substances / aspects	Quality level
ENV 1.2 Local environmental impact	48 Timber construction and prefabricated wooden houses	Formaldehyde	Quality level 4
Verification: Prüfbericht des Instituts SGS INSTITUT FRESENIUS GmbH vom 28.07.2021. Konformitätserklärung vom 04.08.2023 bestätigt die materielle Übereinstimmung mit dem geprüften Produkt.			

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BNB-BN Neubau V2015

The Bewertungssystem Nachhaltiges Bauen (Assessment System for Sustainable Building) is a tool for evaluating public office and administrative buildings, educational facilities, laboratory buildings, and outdoor areas in Germany. The BNB was developed by the former Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMUB) and is now overseen by the Federal Ministry for Housing, Urban Development and Building (BMWSB).

Criteria	Assessment
1.1.7 Nachhaltige Materialgewinnung	May positively contribute to the overall building score
Verification: PEFC-Zertifikat vom 18.03.2022	

Criteria	Pos. / product type	Considered substance group	Quality level
1.1.6 Risiken für die lokale Umwelt	41 Wood-based panels according to EN 13986, such as chipboard, plywood, fiberboard, medium-density fiberboard (MDF), plywood, solid wood panels, and OSB panels, as well as veneer plywood	VOC / formaldehyde / hazardous substances	Quality level 4
Verification: Prüfbericht des Instituts SGS INSTITUT FRESENIUS GmbH vom 28.07.2021. Konformitätserklärung vom 04.08.2023 bestätigt die materielle Übereinstimmung mit dem geprüften Produkt. Zusätzlich gilt Position 46a): Herstellererklärung vom 03.11.2021			

Product:
Zementgebundene Spanplatte Cetris

SHI Product Passport no.:
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EU taxonomy

The EU Taxonomy classifies economic activities and products according to their environmental impact. At the product level, the EU regulation defines clear requirements for harmful substances, formaldehyde and volatile organic compounds (VOCs). The Sentinel Holding Institut GmbH labels qualified products that meet this standard.

Criteria	Product type	Considered substances	Assessment
DNSH - Pollution prevention and control		Substances according to Annex C	EU taxonomy compliant
Verification: SHI-Schadstoffgeprüft			

Product:
Zementgebundene Spanplatte Cetris

SHI Product Passport no.:
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BREEAM DE Neubau 2018

BREEAM (Building Research Establishment Environmental Assessment Methodology) is a UK-based building assessment system that evaluates the sustainability of new constructions, refurbishments, and conversions. Developed by the Building Research Establishment (BRE), the system aims to assess and improve the environmental, economic, and social performance of buildings.

Criteria	Product category	Considered substances	Quality level
Hea 02 Indoor Air Quality	Wood-based products	Emissions: Formaldehyde, TVOC, TSVOC, carcinogens	Exemplary quality

Verification: Prüfbericht des Instituts SGS INSTITUT FRESENIUS GmbH vom 28.07.2021. Konformitätserklärung vom 04.08.2023 bestätigt die materielle Übereinstimmung mit dem geprüften Produkt.

Product:
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LEED v4.1

LEED (Leadership in Energy and Environmental Design) is an internationally recognised building certification system developed by the U.S. Green Building Council. It is one of the most widely used sustainability standards for buildings worldwide and is particularly applied in internationally oriented projects. LEED assesses buildings holistically across categories such as energy efficiency, resource conservation, material selection, indoor environmental quality and site sustainability. Depending on the number of points achieved, projects are awarded one of the certification levels: LEED Certified, Silver, Gold or Platinum.

Criteria	Product category	Assessment
EQ Credit: Low-Emitting Materials	Holzwerkstoffe	compliant
Verification: Prüfbericht des Instituts SGS INSTITUT FRESENIUS GmbH vom 28.07.2021. Konformitätserklärung vom 04.08.2023 bestätigt die materielle Übereinstimmung mit dem geprüften Produkt.		

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Product labels

In the construction industry, high-quality materials are crucial for a building's indoor air quality and sustainability. Product labels and certificates offer guidance to meet these requirements. However, the evaluation criteria of these labels vary, and it is important to carefully assess them to ensure products align with the specific needs of a construction project.

The PEFC label certifies wood and wood products from sustainably managed forests and requires, among other things, legal origin, protection of forest ecosystems, and social minimum standards in forestry. Environmental organisations consider PEFC's criteria to be less strict than those of FSC, particularly regarding the protection of sensitive forest areas. Health-related aspects of the final product are not part of the PEFC assessment.

This product is SHI Indoor Air Quality certified and recommended by Sentinel Holding Institut. Indoor-air-focused construction, renovation, and operation of buildings is made possible by transparent and verifiable criteria thanks to the Sentinel Holding concept.

Products bearing the Sentinel Holding Institute QNG-ready seal are suitable for projects aiming to achieve the "Qualitätssiegel Nachhaltiges Gebäude" (Quality Seal for Sustainable Buildings). QNG-ready products meet the requirements of QNG Appendix Document 3.1.3, "Avoidance of Harmful Substances in Building Materials." The KfW loan program Climate-Friendly New Construction with QNG may allow for additional funding.

LCA Studio s.r.o. is an independent Czech testing institute specialising in life cycle assessments (LCA) and Environmental Product Declarations (EPD) within the framework of the International EPD System. The company verifies environmental data in accordance with international standards such as ISO 14025 and supports manufacturers in preparing transparent EPDs.

Product:
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Legal notices

(*) These criteria apply to the construction project as a whole. While individual products can positively contribute to the overall building score through proper planning, the evaluation is always conducted at the building level. The information was provided entirely by the manufacturer.

Find our criteria here: https://www.sentinel-holding.eu/de/Themenwelten/Pr%C3%BCfkriterien%20f%C3%BCr%20Produkte

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SGS TÜV SAAR

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CLASSIFICATION OF REACTION TO FIRE
FIRES-CR-100-17-AURE

Cement-bonded particleboard CETRIS® / CETRIS® AKUSTIC

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Reg. No. 041/S-159

The Experts on Fire Safety

CLASSIFICATION OF REACTION TO FIRE

with extended field of application

FIRES-CR-100-17-AURE

Name of the product: Cement-bonded particleboard CETRIS® / CETRIS® AKUSTIC

Sponsor:
CIDEM Hranice, a.s.
Skalní č. 1088
Hranice I – Město
753 01 Hranice
Czech Republic

Prepared by:
FIRES, s.r.o.
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FIRES, s.r.o., Osloboditeľov 282, 059 35 Batizovce, Slovak Republic
tel. 00421 52 775 22 98, www.fires.sk
Notified Body No. 1396, Approved Body No. SK01, Member of EGOLF

1. INTRODUCTION

This classification report defines the reaction to fire classification assigned to element Cement-bonded particleboard CETRIS® / CETRIS® AKUSTIC in accordance with the classes given in EN 13501-1: 2007 + A1: 2009.

2. DETAILS OF CLASSIFIED PRODUCT

2.1 GENERAL

The element, cement-bonded particleboard CETRIS®, is used in vertical and horizontal building constructions, non-loadbearing walls and partitions, cladding of walls, shaft walls, exterior loadbearing and non-loadbearing walls, floor systems, hollow core floors, cladding of timber and steel constructions in order to increase fire resistance, as membrane of suspended ceiling according to EN 13964, and Cement-bonded particleboard CETRIS® AKUSTIC is used as acoustic cladding of walls and ceilings, which is fixed to the steel supporting construction with a layer of mineral wool.

2.2 PRODUCT DESCRIPTION

Cement-bonded particleboard CETRIS® consists of timber mass, cement, water, hydrating ingredients and surface treatment. There are openings with diameter of 12 mm drilled in the board in case of type CETRIS® AKUSTIC. These openings are evenly distributed on the whole surface in distance 32 mm.

Content of individual components (volume %):
- timber mass 60 %;
- cement 22 %;
- water 15 %;
- hydrating ingredients 3 %.

Board thickness: 8 mm - 40 mm.
Bulk density: 1350 kg/m^3.

Cement-bonded particleboard CETRIS® are produced with following surface treatments:

Table No. 1

BASIC	smooth surface, without surface treatment
PROFIL	relief surface, without surface treatment;
AKUSTIC	smooth surface, evenly drilled openings;
PLUS	smooth surface, with surface treatment: • base coat BTAitop 1000A/CRT, area density (140 – 220) g/m^2 (in wet state), applied on obverse/seamy side of board and on edges of board, dry matter content min. 52% by weight;
PROFIL PLUS	relief surface, with surface treatment: • base coat BTAitop 1000A/CRT, area density (140 – 220) g/m^2 (in wet state), applied on obverse/seamy side of board and on edges of board, dry matter content min. 52% by weight;
FINISH	smooth surface, with surface treatment: • base coat BTAitop 1000A/CRT, area density (200 – 250) g/m^2 (in wet state), applied on obverse/seamy side of board and on edges of board, dry matter content min. 52% by weight; • base coat BTAi EP 3000 AB, area density (110 – 130) g/m^2 (in wet state), applied on obverse/seamy side of board and on edges of board, dry matter content min. 56% by weight; • top coat BTAitop 1000A/CTS, area density (160 – 200) g/m^2 (in wet state), applied on obverse/seamy side of board and on edges of board, dry matter content min. 52% by weight;

FINISH PROFIL	relief obverse side, with surface treatment: • base coat BTAitop 1000A/CRT, area density (200 – 250) g/m^2 (in wet state), applied on obverse/seamy side of board and on edges of board, dry matter content min. 52% by weight; • base coat BTAi EP 3000 AB, area density (110 – 130) g/m^2 (in wet state), applied on obverse/seamy side of board and on edges of board, dry matter content min. 56% by weight; • top coat BTAitop 1000A/CTS, area density (160 – 200) g/m^2 (in wet state), applied on obverse/seamy side of board and on edges of board, dry matter content min. 52% by weight;
AKUSTIC FINISH	smooth surface, evenly drilled openings, with surface treatment: • base coat BTAitop 1000A/CRT, area density (200 – 250) g/m^2 (in wet state), applied on obverse/seamy side of board and on edges of board, dry matter content min. 52% by weight; • base coat BTAi EP 3000 AB, area density (110 – 130) g/m^2 (in wet state), applied on obverse/seamy side of board and on edges of board, dry matter content min. 56% by weight; • top coat BTAitop 1000A/CTS, area density (160 – 200) g/m^2 (in wet state), applied on obverse/seamy side of board and on edges of board, dry matter content min. 52% by weight;
LASUR	smooth surface, with surface treatment: • base coat BTAitop 1000A/CRT, area density (200 – 250) g/m^2 (in wet state), applied on obverse/seamy side of board and on edges of board, dry matter content min. 52% by weight; • base coat BTAi EP 3000 AB, area density (110 – 130) g/m^2 (in wet state), applied on obverse/seamy side of board and on edges of board, dry matter content min. 56% by weight; • scumble varnish BTAitop 1000A/CTS-lazura, area density (160 – 200) g/m^2 (in wet state), applied on obverse/seamy side of board and on edges of board, dry matter content min. 38 % by weight;
PROFIL LASUR	relief obverse side, with surface treatment: • base coat BTAitop 1000A/CRT, area density (200 – 250) g/m^2 (in wet state), applied on obverse/seamy side of board and on edges of board, dry matter content min. 52% by weight; • base coat BTAi EP 3000 AB, area density (110 – 130) g/m^2 (in wet state), applied on obverse/seamy side of board and on edges of board, dry matter content min. 56% by weight; • scumble varnish BTAitop 1000A/CTS-lazura, area density (160 – 200) g/m^2 (in wet state), applied on obverse/seamy side of board and on edges of board, dry matter content min. 38% by weight;
LASIN	smooth grinded surface, with surface treatment: • base coat BTAitop 1000A/CRT, area density (200 – 250) g/m^2 (in wet state), applied on obverse/seamy side of board and on edges of board, dry matter content min. 52% by weight; • base coat BTAi EP 3000 AB, area density (110 – 130) g/m^2 (in wet state), applied on obverse/seamy side of board and on edges of board, dry matter content min. 56% by weight; • scumble varnish BTAitop 1000A/CTS-lazura, area density (160 – 200) g/m^2 (in wet state), applied on obverse/seamy side of board and on edges of board, dry matter content min. 38 % by weight;

AKUSTIC LASIN	smooth grinded surface, evenly drilled openings, with surface treatment: • base coat BTAitop 1000A/CRT, area density (200 – 250) g/m^2 (in wet state), applied on obverse/seamy side of board and on edges of board, dry matter content min. 52% by weight; • base coat BTAi EP 3000 AB, area density (110 – 130) g/m^2 (in wet state), applied on obverse/seamy side of board and on edges of board, dry matter content min. 56% by weight; • top coat BTAitop 1000A/CTS-lazura, area density (160 – 200) g/m^2 (in wet state), applied on obverse/seamy side of board and on edges of board, dry matter content min. 38 % by weight;
DOLOMIT NEW	smooth surface, with surface treatment: surface treatment on obverse side of board: • coat Waterstop, water resistant coat for surface treatment of seamy side, area density 0,100 kg/m^2; • epoxide plaster EPOXY-β-2 water resistant glue used as base for marble brash on obverse side, area density 0,200 kg/m^2 • marble brash, area density 2,5 – 3 kg/m^2, grain 3 mm thick;

Note: Manufacturer of coats and varnish BTAitop 1000A/CRT, BTAitop 1000A/CTS, BTAitop 1000A/CTS-lazura and BTAi EP 3000 is BTA Industry a.s., K velké Ohradě 776, 155 00 Praha 5, Czech Republic. Manufacturer of individual components of surface treatment DOLOMIT NEW is UAB "Vilsoplat", Titnago g. 19, 023 00 Vilnius, Lithuania.

Cement-bonded particleboards are fixed to the supporting construction (timber or steel) by steel screws placed in spacing max. 300 mm.

Boards CETRIS® AKUSTIC are fixed to supporting construction made of steel galvanized profiles (60 x 27 x 0,6) mm, by means of steel screws (Ø 4,2 x 25) mm placed in spacing max. 300 mm.

Layer of insulating material (building construction without cavity), e.g. mineral wool Orsil HARDSIL, Orsil N (manufacturer SAINT-GOBAIN ORSIL s.r.o. Častolovice, Czech Republic) or other type of mineral wool with bulk density min. 60 kg/m^3 and reaction to fire class A1 may be applied to CETRIS® boards or building constructions are produced with cavity (without insulation).

Layer of insulating material, e.g. mineral wool with bulk density min. 22 kg/m^3 and reaction to fire class min. A2-s1, d0 is applied to CETRIS® AKUSTIC boards from the inside of the construction.

Joints of cement-bonded particleboards CETRIS® are without mastic or with mastic DEXAFLAMM-R (manufacturer: TORA, spol. s r.o., Czech Republic).

Suspended ceilings

Supporting construction of suspended ceiling according to EN 13964 is made of profiles CD (60 x 27 x 0,6) mm, loadbearing and assembling. Maximal spacing between loadbearing CD profiles is 960 mm. Maximal spacing between assembling CD profiles is 420 mm. Assembling profiles are fixed to loadbearing profiles by cross coupling. Loadbearing profiles are fixed to roof by means of straight hinges. Type of CD profile, cross coupling and straight hinge is of KNAUF, type D 112 (supplier KNAUF Praha, s.r.o., Czech Republic) ceiling construction. Material of CD profiles, suspension and fixation elements – steel of class min. DX 51D+Z according to EN 10142, with a continuous metal layer, applied in hot state Z100 according to EN 10327.

There are 5 mm wide dilatation gaps between boards, which are sealed by mastic DEXAFLAMM-R (manufacturer TORA Spytihněv spol. s r.o., Czech Republic). Boards CETRIS® are fixed to loadbearing construction by means of screws (Φ4,2 x 35) mm or (Φ3,9 x 30) mm placed in spacing max. 300 mm. Screw heads are sealed by mastic DEXAFLAMM-R (manufacturer TORA Spytihněv spol. s r.o., Czech Republic).

40 mm thick insulating layer made of mineral wool (according to table No. 2) is inserted between CD profiles of supporting construction. Second layer of mineral wool (according to table No. 2), 40 mm thick is placed on first mineral wool layer. Upper layer of mineral wool is rotated 90°, so the joints are overlapped.

Table No. 2

Product variant A)	Orsil HARDSIL with bulk density 60 kg.m^{-3} (manufacturer SAINT-GOBAIN ORSIL s.r.o. Častolovice, Czech Republic)
Product variant B)	Orsil N with bulk density 100 kg.m^{-3} (manufacturer SAINT-GOBAIN ORSIL s.r.o. Častolovice, Czech Republic)

3. EXTENDED APPLICATION REPORTS AND TEST RESULTS IN SUPPORT OF CLASSIFICATION

3.1 EXTENDED APPLICATION REPORTS

No.	Name of laboratory	Name of sponsor	Report No.	Date of issue
[1]	FIRES, s.r.o., Batizovce, Slovak Republic	CIDEM Hranice, a.s., Czech Republic	FIRES-ER-016-17-NURE	12. 04. 2017

4. CLASSIFICATION AND FIELD OF APPLICATION

4.1 REFERENCE OF CLASSIFICATION

This classification has been carried out in accordance with classes defined in clause 11.7 of EN 13501-1: 2007 + A1: 2009.

4.2 CLASSIFICATION

The element, Cement-bonded particleboard CETRIS® / CETRIS® AKUSTIC, in relation to its reaction to fire behaviour is classified:

A2

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 and linear pipe thermal insulation products is:

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

Reaction to fire classification: A2-s1, d0

4.3 FIELD OF APPLICATION

This extended application report is valid for product described in clause 2.1 and following end use:

i) in horizontal (excluding floorings) and vertical position;
ii) without surface treatment;
iii) with surface treatment according to clause 2.2.2 (all color shades);
iv) without cavity;
v) with cavity (apart from boards CETRIS® AKUSTIC);
vi) with timber supporting construction (apart from boards CETRIS® AKUSTIC);
vii) with steel supporting construction;
viii) gaps in joints of boards without mastic;
ix) gaps in joints of boards with mastic (apart from boards CETRIS® AKUSTIC).

This extended application report is valid for following product parameters:

Thickness	- thickness of cement-bonded particleboards CETRIS® and CETRIS® AKUSTIC may vary in range from 8 mm to 40 mm; - thickness of mineral wool be changed; - change in surface treatment thickness is allowed within the scope of manufacturing tolerances;
Bulk density [kg/m^3]	- change in the bulk density of cement-bonded particleboards CETRIS® and CETRIS® AKUSTIC is allowed within the scope of manufacturing tolerances; - increase in the bulk density of mineral wool is allowed;
Area density [kg/m^2]	- change in the bulk density is allowed within the scope of manufacturing tolerances;
Product composition	- content of individual components CTD according to clause 2.2.2 shall not be changed; - only surface treatment according to clause 2.2.2 may be used for CTD; - only mineral wool with minimal reaction to fire class A2-s1, d0 is allowed to be used in construction of the product; - ceiling according to EN 13964 is produced with/without cavity above membrane, only mineral wool with reaction to fire class A1 may be used for insulation; - supporting construction may be made of timber (apart from boards CETRIS® AKUSTIC), timber-based materials (apart from boards CETRIS® AKUSTIC) and steel, or other materials with reaction to fire class A1.

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, standards and regulations are not changed.

Approved:

Ing. Štefan Rástocký
leader of the testing laboratory

Signed:

Ing. Samuel Skokan
technician of the testing laboratory

Technical Data Sheet (TDS)

CETRIS® BASIC

CETRIS® BASIC is a cement-bonded particleboard with smooth naturally cement-grey surface. It is produced by pressing a mixture of wood chips (63% by volume), Portland cement (25% vol.), water (10% vol), and hydration additives (2% by volume); it is available in standard thicknesses of 8, 10, 12, 14, 16 , 18, 20, 22, 24, 26, 28, 30, and 32 mm. Upon prior agreement it is also possible to deliver the following thicknesses: 34, 36, 38 and 40 mm. The basic size of the board is 3,350 x 1,250 mm. We deliver the boards cut to the sizes specified by the customer, with rounded edge or chamfered edge to 45° angle, milled starting from the 12-mm thickness with half-groove, starting from the 16-mm thicknes with tongue and groove. The boards may also be delivered with pre-drilled holes. The cement-bonded particleboard are used mainly as a structural material in cases where moisture resistance, strength, fire resistance, ecological and hygienic harmlessness are required at the same time. CETRIS® Boards do not contain either asbestos or formaldehyde; they are resistant to insects and mold exposure. They are fireproof and can provide sound insulation. The boards can be worked with conventional woodworking tools.

Technical specifications:

basic size:	3,350 x 1,250 mm
board thicknesses:	8-10-12-14-16-18-20-22-24-26-28-30-32, upon prior agreement 34-36-38-40 mm
Bulk density:	1,150-1,450 kg/m3
service: to customer's requirements.	cutting, drilling holes, shrinkage, edge cutting and milling
Surface:	smooth
surface finish:	without surface finish

Table of basic physical and mechanical properties of CETRIS® cement-bonded particleboards:	Limit values according to standard	Mean values - real
Bulk density acc. to EN 323:	min. 1,000 kg/m3	1,350 kg/m3
Bending tensile strength acc. to EN 310	min. 9.0 N/mm2	min. 11.5 N/mm2
Modulus of elasticity acc. to EN 310	min. 4,500 N/mm^2	min. 6,800 N/mm2
Tensile strength perpendicular to the board plane acc. to EN 319	min. 0.5 N/mm2	min. 0.63 N/mm2
Internal bond after cycling in a humid environment according to EN 321	min. 0.3 N/mm2	min. 0.41 N/mm2
Reaction to fire acc. to EN 13 501-1		A2-s1, d0
Index of flame propagation along the surface acc. to the Czech standard ČSN 73 0863		i = 0 mm/min
Thickness swelling when stored in water for 24 hours	max. 1.5 %	max. 0.28 %
Thickness swelling after cycling in a humid environment according to EN 321	max. 1.5 %	max. 0.31 %
Linear expansion with changes in humidity from 35% to 85% at 23 °C according to EN 13 009		max. 0.122 %
Water absorption by the board when stored in water for 24 hours		max. 16 %
Thermal expansion coefficient acc. to EN 13 471		10 × 10-6 K-1
Coefficient of thermal conductivity acc. EN 12 664; thickness 8 to 40 mm		0.200 - 0.287W/mK
Airborne sound insulation according to Czech standard CSN 73 0513, th.8 to 40mm		30 dB – 35 dB
Diffusion resistance factor according to DIN EN ISO 12572, th.8 to 40		52.8 – 69.2
Resistance to frost at 100 cycles according to EN 1328	R_L > 0.7	R_L = 0.97
pH of the board material		12,5
Mass activity Ra 226	150 Bq/kg	22 Bq/kg
Mass activity index	I = 0.5	I = 0.21
Surface resistance to water and chemical de-icing agents acc. to Czech standard CSN 73 1326	Waste after 100 cycles max. 800 g/m2 (Method A)	Waste after 100 cycles max. 20.4 g/m2 (Method A)
	Waste after 75 cycles max. 800 g/m2 (Method C)	Waste after 100 cycles max. 47.8 g/m2 (Method C)
Resistance to arc discharge of high voltage according to EN 61 621		th. 10mm, min.143 sec
Shearing friction coefficient acc. to the Czech standard ČSN 74 4507		Static μs = 0.73
		dynamic μd = 0.76
Mass balanced humidity at 20° and a relative humidity of 50% according to EN 634-1	9 ±3 %	9.50%

Dimensional tolerance:

Feature	Board thickness	Requirement
Thickness of uncut board	8 mm	±0.7 mm
	10 mm	±0.7 mm
	12 mm	±1.0 mm
	14 mm	±1.0 mm
	16 mm	±1.2 mm
	18 mm	±1.2 mm
	20-40 mm	±1.5 mm
Length and width of the basic format		±5.0 mm
Precision of cutting the length and width		±3.0 mm
Edge straightness tolerance		1.5 mm/m
Rectangularity tolerance		2.0 mm/m

Appearance:

Parameter	I.Quality class	II.Quality class
Deviation from the right angle	max. 2 mm/1 m of length	max. 4 mm/1 m of length
Permitted edge damage	max. to the depth of 3 mm	max. to the depth of 30 mm
Protrusions on the surface	max.1 mm, size 10 mm	max. 1 mm
Depressions	max.1 mm, size 10 mm	max. 2 mm

Technical Data Sheet (TDS)

www.cetris.cz

CETRIS® INCOL

CETRIS® INCOL is a cement-bonded particleboard with a smooth surface, tinted with black pigment in the mass. It is produced by pressing a mixture of wood chips (63% by volume), Portland cement (25% vol.), water (10% vol), and hydration additives (2% by volume); it is available in standard thicknesses 12 mm. The basic size of the board is 3,350 x 1,250 mm. We deliver the boards cut to the sizes specified by the customer, with rounded edge or chamfered edge to 45° angle, milled starting with half-groove. The boards may also be delivered with pre-drilled holes. The cement-bonded particleboard are used mainly as a structural material in cases where moisture resistance, strength, fire resistance, ecological and hygienic harmlessness are required at the same time. CETRIS® Boards do not contain either asbestos or formaldehyde; they are resistant to insects and mold exposure. They are fireproof and can provide sound insulation. The boards can be worked with conventional woodworking tools.

Technical specifications:

basic size:	3,350 x 1,250 mm
board thicknesses:	12 mm
Bulk density:	1,150-1,450 kg/m3
service: to customer's requirements.	cutting, drilling holes, shrinkage, edge cutting and milling
Surface:	smooth
surface finish:	teinted with black pigment in the mass

Table of basic physical and mechanical properties of CETRIS® cement-bonded particleboards:	**Limit values according to standard**	**Mean values - real**
Bulk density acc. to EN 323:	min. 1,000 kg/m3	1,350 kg/m3
Bending tensile strength acc. to EN 310	min. 9.0 N/mm2	min. 11.5 N/mm2
Modulus of elasticity acc. to EN 310	min. 4,500 N/mm^2	min. 6,800 N/mm2
Tensile strength perpendicular to the board plane acc. to EN 319	min. 0.5 N/mm2	min. 0.63 N/mm2
Internal bond after cycling in a humid environment according to EN 321	min. 0.3 N/mm2	min. 0.41 N/mm2
Reaction to fire acc. to EN 13 501-1		A2-s1, d0
Index of flame propagation along the surface acc. to the Czech standard ČSN 73 0863		i = 0 mm/min
Thickness swelling when stored in water for 24 hours	max. 1.5 %	max. 0.28 %
Thickness swelling after cycling in a humid environment according to EN 321	max. 1.5 %	max. 0.31 %
Linear expansion with changes in humidity from 35% to 85% at 23 °C according to EN 13 009		max. 0.122 %
Water absorption by the board when stored in water for 24 hours		max. 16 %
Thermal expansion coefficient acc. to EN 13 471		10 × 10-6 K-1

Coefficient of thermal conductivity acc. EN 12 664; thickness 8 to 40 mm		0.200 - 0.287W/mK
Airborne sound insulation according to Czech standard CSN 73 0513, th.8 to 40mm		30 dB – 35 dB
Diffusion resistance factor according to DIN EN ISO 12572, th.8 to 40		52.8 – 69.2
Resistance to frost at 100 cycles according to EN 1328	$R_L > 0.7$	$R_L = 0.97$
pH of the board material		12,5
Mass activity Ra 226	150 Bq/kg	22 Bq/kg
Mass activity index	I = 0.5	I = 0.21
Surface resistance to water and chemical de-icing agents acc. to Czech standard CSN 73 1326	Waste after 100 cycles max. 800 g/m2 (Method A)	Waste after 100 cycles max. 20.4 g/m2 (Method A)
	Waste after 75 cycles max. 800 g/m2 (Method C)	Waste after 100 cycles max. 47.8 g/m2 (Method C)
Resistance to arc discharge of high voltage according to EN 61 621		th. 10mm, min.143 sec
Shearing friction coefficient acc. to the Czech standard ČSN 74 4507		Static μs = 0.73
		dynamic μd = 0.76
Mass balanced humidity at 20° and a relative humidity of 50% according to EN 634-1	9 ±3 %	9.50%

Dimensional toleran

Feature	Board thickness	Requirement
Thickness of uncut board	12 mm	±1.0 mm
Length and width of the basic fo		±5.0 mm
Precision of cutting the length a		±3.0 mm
Edge straightness tolerance		1.5 mm/m
Rectangularity tolerance		2.0 mm/m

Appearance:

Parameter	I.Quality class	II.Quality class
Deviation from the right angle	max. 2 mm/1 m of length	max. 4 mm/1 m of length
Permitted edge damage	max. to the depth of 3 mm	max. to the depth of 30 mm
Protrusions on the surface	max.1 mm, size 10 mm	max. 1 mm
Depressions	max.1 mm, size 10 mm	max. 2 mm

Technical Data Sheet (TDS)

CETRIS® PD

CETRIS® PD tongue-and-groove cement-bonded particleboard has a smooth surface, and it is produced by pressing a mixture of wood chips (63% vol.), Portland cement (25% by volume), water (10% vol.), and moisturizing ingredients (2% vol.), followed by cutting and milling. The boards are manufactured in a standard format 1,250 x 625 mm, thickness 16, 18, 20, 22, 24, 26, 28 mm, and with keyed circumference. Primarily, the boards are designed for dry floor technology, i.e. they are laid on beams or may be used for renovation of old floors.The cement-bonded particleboard are used mainly as a structural material in cases where moisture resistance, strength, fire resistance, ecological and hygienic harmlessness are required at the same time. CETRIS® Boards do not contain either asbestos or formaldehyde; they are resistant to insects and mold exposure. They are fireproof and can provide sound insulation.

Technical specifications:

basic size:	1,250 x 625 mm (including the tongue)
board thicknesses:	16-18-20-22-24-26-28 mm
Bulk density:	1,150-1,450 kg/m3
service:	milled edges with tongue and groove
thickness tolerance:	±1.2 mm (th. 16 and 18 mm), ±1.5 mm (others)
surface finish:	without surface finish

Table of basic physical and mechanical properties of CETRIS® cement-bonded particleboards:	Limit values according to standard	Mean values - real
Bulk density acc. to EN 323:	min. 1,000 kg/m3	1,350 kg/m3
Bending tensile strength acc. to EN 310	min. 9.0 N/mm2	min. 11.5 N/mm2
Modulus of elasticity acc. to EN 310	min. 4,500 N/mm2	min. 6,800 N/mm2
Tensile strength perpendicular to the board plane acc. to EN 319	min. 0.5 N/mm2	min. 0.63 N/mm2
Internal bond after cycling in a humid environment according to EN 321	min. 0.3 N/mm2	min. 0.41 N/mm2
Reaction to fire acc. to EN 13 501-1		A2-s1, d0
Index of flame propagation along the surface acc. to the Czech standard ČSN 73 0863		i = 0 mm/min
Thickness swelling when stored in water for 24 hours	max. 1.5 %	max. 0.28 %
Thickness swelling after cycling in a humid environment according to EN 321	max. 1.5 %	max. 0.31 %
Linear expansion with changes in humidity from 35% to 85% at 23 °C according to EN 13 009		max. 0.122 %
Water absorption by the board when stored in water for 24 hours		max. 16 %
Thermal expansion coefficient acc. to EN 13 471		10 × 10-6 K-1
Coefficient of thermal conductivity acc. EN 12 664; thickness 8 to 40 mm		0.200 - 0.287W/mK
Airborne sound insulation according to Czech standard CSN 73 0513, th.8 to 40mm		30 dB – 35 dB
Diffusion resistance factor according to DIN EN ISO 12572, th.8 to 40		52.8 – 69.2
Resistance to frost at 100 cycles according to EN 1328	R_L > 0.7	R_L = 0.97
pH of the board material		12,5
Mass activity Ra 226	150 Bq/kg	22 Bq/kg
Mass activity index	I = 0.5	I = 0.21
Surface resistance to water and chemical de-icing agents acc. to Czech standard CSN 73 1326	Waste after 100 cycles max. 800 g/m2 (Method A)	Waste after 100 cycles max. 20.4 g/m2 (Method A)
	Waste after 75 cycles max. 800 g/m2 (Method C)	Waste after 100 cycles max. 47.8 g/m2 (Method C)
Resistance to arc discharge of high voltage according to EN 61 621		th. 10mm, min.143 sec
Shearing friction coefficient acc. to the Czech standard ČSN 74 4507		Static μs = 0.73
		dynamic μd = 0.76
Mass balanced humidity at 20° and a relative humidity of 50% according to EN 634-1	9 ±3 %	9.50%

Dimensional tolerance:

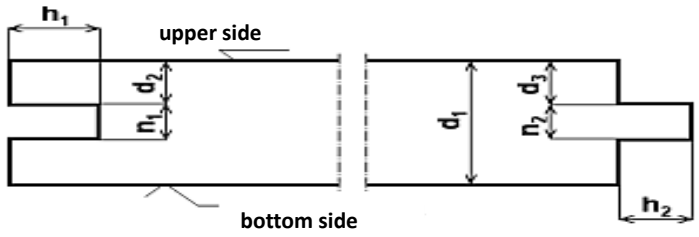
Feature	Board thickness	Requirement
Length and width of the basic format	16-28mm	±5.0 mm
Precision of cutting the length and width	16-28mm	±3.0 mm
Edge straightness tolerance	16-28mm	1.5 mm/m
Rectangularity tolerance	16-28mm	2.0 mm/m

Appearance:

Parameter	I.Quality class
Deviation from the right angle	max. 2 mm/1 m of length
Permitted edge damage	max. to the depth of 3 mm
Protrusions on the surface	max.1 mm, size 10 mm
Depressions	max.1 mm, size 10 mm

Sizes of tongue and groove (all data in mm)

d1	16	18	20	22	24	26	28
n2	5,5	5,5	5,5	5,5	7	7	7
n1	6	6	6	6	8	8	8
d2	5	6	7	8	8	9	10
d3	5,25	6,25	7,25	8,25	8,5	9,5	10,5
h1	10	10	10	10	10	10	10
h2	8,5	8,5	8,5	8,5	8,5	8,5	8,5



Dimension	Tolerance	Dimension	Tolerance
d2	± 0.5	d3	± 0.5
n1	0 / +0.5	n2	− 0.5 / 0
h1	0 / +2	h2	− 2 / 0

Board size for types PD and PDB, without tongue – 617 x 1242mm



Technical Data Sheet (TDS)

CETRIS® PDB

CETRIS® PDB tongue-and-groove cement-bonded particleboard has a smooth surface and is calibrated by grinding; it is produced by pressing a mixture of wood chips (63% vol.), Portland cement (25% by volume), water (10% vol.), and moisturizing ingredients (2% vol.), followed by cutting and milling. The adjustment reduces thickness tolerance to +/- 0.3 mm. The boards are manufactured in a standard format 1,250 x 625 mm, thickness 16, 18, 20, 22, 24, 26, 28mm (on the basis of agreement 30-32-34-36-38mm), and with keyed circumference. Primarily, they are designed for dry floor technology, i.e. for installation on beams or renovating of old floors. They are also ideal as a base under a loosely deposited thin floor covering. The cement-bonded particleboard are used mainly as a structural material in cases where moisture resistance, strength, fire resistance, ecological and hygienic harmlessness are required at the same time. CETRIS® Boards do not contain either asbestos or formaldehyde; they are resistant to insects and mold exposure. They are fireproof and can provide sound insulation.

Technical specifications:

basic size:	1,250 x 625 mm (including the tongue)
board thicknesses:	16-18-20-22-24-26-28mm (on the basis of agreement 30-32-34-36-38mm)
Bulk density:	1,150-1,450 kg/m3
service: to customer's requirements.	milled edges with tongue and groove
thickness tolerance:	+-0.3 mm
surface finish:	without surface finish

Table of basic physical and mechanical properties of CETRIS® cement-bonded particleboards:	Limit values according to standard	Mean values - real
Bulk density acc. to EN 323:	min. 1,000 kg/m3	1,350 kg/m3
Bending tensile strength acc. to EN 310	min. 9.0 N/mm2	min. 11.5 N/mm2
Modulus of elasticity acc. to EN 310	min. 4,500 N/mm2	min. 6,800 N/mm2
Tensile strength perpendicular to the board plane acc. to EN 319	min. 0.5 N/mm2	min. 0.63 N/mm2
Internal bond after cycling in a humid environment according to EN 321	min. 0.3 N/mm2	min. 0.41 N/mm2
Reaction to fire acc. to EN 13 501-1		A2-s1, d0
Index of flame propagation along the surface acc. to the Czech standard ČSN 73 0863		i = 0 mm/min
Thickness swelling when stored in water for 24 hours	max. 1.5 %	max. 0.28 %
Thickness swelling after cycling in a humid environment according to EN 321	max. 1.5 %	max. 0.31 %
Linear expansion with changes in humidity from 35% to 85% at 23 °C according to EN 13 009		max. 0.122 %
Water absorption by the board when stored in water for 24 hours		max. 16 %
Thermal expansion coefficient acc. to EN 13 471		10 × 10-6 K-1
Coefficient of thermal conductivity acc. EN 12 664; thickness 8 to 40 mm		0.200 - 0.287W/mK
Airborne sound insulation according to Czech standard CSN 73 0513, th.8 to 40mm		30 dB – 35 dB
Diffusion resistance factor according to DIN EN ISO 12572, th.8 to 40		52.8 – 69.2
pH of the board material		12,5
Mass activity Ra 226	150 Bq/kg	22 Bq/kg
Mass activity index	I = 0.5	I = 0.21
Resistance to arc discharge of high voltage according to EN 61 621		th. 10mm, min.143 sec
Shearing friction coefficient acc. to the Czech standard ČSN 74 4507		Static μs = 0.73
		dynamic μd = 0.76
Mass balanced humidity at 20° and a relative humidity of 50% according to EN 634-1	9 ±3 %	9.50%

Dimensional tolerance:

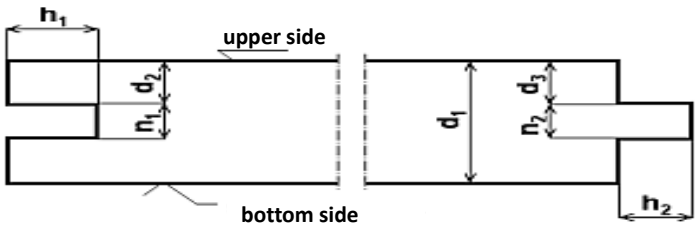
Feature	Board thickness	Requirement
Length and width of the basic format	16-28mm	±5.0 mm
Precision of cutting the length and width	16-28mm	±3.0 mm
Edge straightness tolerance	16-28mm	1.5 mm/m
Rectangularity tolerance	16-28mm	2.0 mm/m

Appearance:

Parameter	I.Quality class
Deviation from the right angle	max. 2 mm/1 m of length
Permitted edge damage	max. to the depth of 3 mm
Protrusions on the surface	max.1 mm, size 10 mm
Depressions	max.1 mm, size 10 mm

Sizes of tongue and groove (all data in mm)

d1	16	18	20	22	24	26	28
n2	5,5	5,5	5,5	5,5	7	7	7
n1	6	6	6	6	8	8	8
d2	5	6	7	8	8	9	10
d3	5,25	6,25	7,25	8,25	8,5	9,5	10,5
h1	10	10	10	10	10	10	10
h2	8,5	8,5	8,5	8,5	8,5	8,5	8,5



Dimension	Tolerance	Dimension	Tolerance
d2	± 0.5	d3	± 0.5
n1	0 / +0.5	n2	− 0.5 / 0
h1	0 / +2	h2	− 2 / 0

Board size for types PD and PDB, without tongue – 617 x 1242mm



Technical Data Sheet (TDS)

CETRIS® PROFIL

CETRIS PROFILE ® is a cement-bonded particleboard, produced in thickness of 10 or 12 mm thickness, with embossed surface imitating the texture of wood or slate. It is produced by pressing a mixture of wood chips (63% by volume), Portland cement (25% vol.), water (10% vol), and hydration additives (2% by volume). The basic size of the board is 3,350 x 1,250 mm. We deliver the boards cut to the sizes specified by the customer, with rounded edge or chamfered edge to 45° angle, milled boards with thickness of 12 mm rebated. Thanks to its decorative look, CETRIS® PROFIL boards are primarily used as facade walling boards in exteriors and interiors. The cement-bonded particleboard are used mainly as a structural material in cases where moisture resistance, strength, fire resistance, ecological and hygienic harmlessness are required at the same time. CETRIS® Boards do not contain either asbestos or formaldehyde; they are resistant to insects and mold exposure. They are fireproof and can provide sound insulation. The boards can be worked with conventional woodworking tools.

Technical specifications:

basic size:	3,350 x 1,250 mm
board thicknesses:	10 – 12mm
Bulk density:	1,150-1,450 kg/m3
service: to customer's requirements.	cutting, drilling holes, shrinkage, edge cutting and milling
Surface:	Relief: wood and slate
surface finish:	without surface finish

Table of basic physical and mechanical properties of CETRIS® cement-bonded particleboards:	Limit values according to standard	Mean values - real
Bulk density acc. to EN 323:	min. 1,000 kg/m3	1,350 kg/m3
Bending tensile strength acc. to EN 310	min. 9.0 N/mm2	min. 11.5 N/mm2
Modulus of elasticity acc. to EN 310	min. 4,500 N/mm2	min. 6,800 N/mm2
Tensile strength perpendicular to the board plane acc. to EN 319	min. 0.5 N/mm2	min. 0.63 N/mm2
Internal bond after cycling in a humid environment according to EN 321	min. 0.3 N/mm2	min. 0.41 N/mm2
Reaction to fire acc. to EN 13 501-1		A2-s1, d0
Index of flame propagation along the surface acc. to the Czech standard ČSN 73 0863		i = 0 mm/min
Thickness swelling when stored in water for 24 hours	max. 1.5 %	max. 0.28 %
Thickness swelling after cycling in a humid environment according to EN 321	max. 1.5 %	max. 0.31 %
Linear expansion with changes in humidity from 35% to 85% at 23 °C according to EN 13 009		max. 0.122 %
Water absorption by the board when stored in water for 24 hours		max. 16 %
Thermal expansion coefficient acc. to EN 13 471		10 × 10-6 K-1
Coefficient of thermal conductivity acc. EN 12 664; thickness 8 to 40 mm		0.200 - 0.287W/mK
Airborne sound insulation according to Czech standard CSN 73 0513, th.8 to 40mm		30 dB – 35 dB
Diffusion resistance factor according to DIN EN ISO 12572, th.8 to 40		52.8 – 69.2
Resistance to frost at 100 cycles according to EN 1328	$R_L > 0.7$	$R_L = 0.97$
pH of the board material		12,5
Mass activity Ra 226	150 Bq/kg	22 Bq/kg
Mass activity index	I = 0.5	I = 0.21
Surface resistance to water and chemical de-icing agents acc. to Czech standard CSN 73 1326	Waste after 100 cycles max. 800 g/m2 (Method A)	Waste after 100 cycles max. 20.4 g/m2 (Method A)
	Waste after 75 cycles max. 800 g/m2 (Method C)	Waste after 100 cycles max. 47.8 g/m2 (Method C)
Resistance to arc discharge of high voltage according to EN 61 621		th. 10mm, min.143 sec
Shearing friction coefficient acc. to the Czech standard ČSN 74 4507		Static μs = 0.73
		dynamic μd = 0.76
Mass balanced humidity at 20° and a relative humidity of 50% according to EN 634-1	9 ±3 %	9.50%

Dimensional tolerance:

Feature	Board thickness	Requirement
Thickness of uncut board	10 mm	±0.7 mm
	12 mm	±1.0 mm
Length and width of the basic format		±5.0 mm
Precision of cutting the length and width		±3.0 mm
Edge straightness tolerance		1.5 mm/m
Rectangularity tolerance		2.0 mm/m

Appearance:

Parameter	I.Quality class	II.Quality class
Deviation from the right angle	max. 2 mm/1 m of length	max. 4 mm/1 m of length
Permitted edge damage	max. to the depth of 3 mm	max. to the depth of 30 mm
Protrusions on the surface	max.1 mm, size 10 mm	max. 1 mm
Depressions	max.1 mm, size 10 mm	max. 2 mm

SICHERHEITSDATENBLATT

gemäß Verordnung (EG) Nr. 1907/2006

Zementgebundene Spanplatten CETRIS

Datum der Erstellung: 20.02.2006
Datum der Überarbeitung: 24.01.2022
Version 1

Abschnitt 1: Bezeichnung des Stoffs beziehungsweise des Gemischs und des Unternehmens

1.1 Produktidentifikator

Name:	**Zementgebundene Spanplatten CETRIS**
CAS nummer:	unzutreffend
Registrierungsnummer:	unzutreffend

1.2 Relevante identifizierte Verwendungen des Stoffs oder Gemischs und Verwendungen, von denen abgeraten wird

Verwendung des Stoffs/des Gemischs	Zementgebundene Spanplatten
Abgeraten:	Unbestimmt

1.3 Einzelheiten zum Lieferanten, der das Sicherheitsdateenblatt bereitstellt

Firmenname:	CIDEM Hranice, a.s., divize CETRIS
Wohnsitz oder Sitz der Gesellschaft:	Nová ulice 223, 753 40 Hranice, Tschechische Republik
Telefon:	+420 581 676 393
E-Mail:	cidem@cidem.cz
Fachlich kompetente Person:	ENVIGROUP s.r.o., Příčná 2186, 347 01 Tachov, Tschechische Republik Tel.: + 420 373 721 316, E-mail: info@envigroup.cz

1.4 Notrufnummer:

Berlin - Institut für Toxikologie - Klinische Toxikologie und Giftnotruf Berlin Tel. +49 30 30686 790
E-Mail: mail@giftnotruf.de
Universelle Notrufnummer EU: 112

Abschnitt 2: Mögliche Gefahren

2.1 Einstufung des Stoffes oder Gemisches

Das Produkt ist in der vom Hersteller gelieferten Form nicht gefährlich. Bei der Herstellung von zementgebundenen Spanplatten (Mischen von losen Zuschlägen und Wasser, Pressen der Platten, Aushärten und Trocknen) werden die irritierenden Wirkungen einzelner Komponenten eliminiert und das resultierende Produkt hat keine nachteiligen Auswirkungen auf die menschliche Gesundheit. Bei der Weiterverarbeitung zementgebundener Spanplatten (z. B. Schneiden, Schleifen) entsteht Staub, der wie folgt reizend und sensibilisierend wirken kann:

Einteilung nach 1272/2008/WE:	Skin Irrit. 2, H315 Skin Sens. 1B, H317 Eye Dam. 1, H318 STOT SE 3, H335
Die gefährlichen Auswirkungen auf die Gesundheit:	Kann die Atemwege reizen. Kann allergische Hautreaktionen verursachen. Verursacht schwere Augenschäden. Kann die Atemwege reizen.
Gefährliche Auswirkungen auf die Umwelt:	Werden nicht klassifiziert.
Gefährliche physikalisch-chemische Wirkungen:	Werden nicht klassifiziert.

2.2 Kennzeichnungselemente

Enthält:	Portland cement
Piktogramme	
Signalwort	Achtung
Gefahrenhinweise:	H315 Kann die Atemwege reizen. H317 Kann allergische Hautreaktionen verursachen. H318 Verursacht schwere Augenschäden. H335 Kann die Atemwege reizen.

	Hinweise für sichere Handhabung:	P280 Schutzhandschuhe/Schutzkleidung/Augenschutz. P261 Einatmen von Staub vermeiden. P302+P352 BEI KONTAKT MIT DER HAUT: Mit viel wasser. P333+P313 Bei Hautreizung oder -ausschlag: Ärztlichen Rat einholen/ärztliche Hilfe hinzuziehen. P305+P351+P338 BEI KONTAKT MIT DEN AUGEN: Einige Minuten lang behutsam mit Wasser spülen. Eventuell vorhandene Kontaktlinsen nach Möglichkeit entfernen. Weiter spülen. P304+P340 BEI EINATMEN: Die Person an die frische Luft bringen und für ungehinderte Atmung sorgen. P314 Bei Unwohlsein ärztlichen Rat einholen/ärztliche Hilfe hinzuziehen.
2.3	**Andere Gefahren** Produktbestandteile werden nicht als PBT oder vPvB bewertet.	

Abschnitt 3: Zusammensetzung/Angaben zu Bestandteilen

3.1 **Stoffe**
Gegenstandslos.

3.2 **Mischungen**

Name des Stoffes	**CAS-Nummer Einecs Indexnummer Registrierungsnummer**	**Konzentration (wt. %)**	**Klassifizierung nach 1272/2008**
Portland cement	65997-15-1 266-043-4 - -	49,7	Skin Irrit. 2, H315 Skin Sens. 1B, H317 Eye Dam. 1, H318 STOT SE 3, H335
Silicic acid, sodium salt	1344-09-8 215-687-4 - -	1,7	Skin Irrit. 2, H315 Eye Dam. 1, H318
Aluminium sulfate octadecahydrate	7784-31-8 616-524-3 - -	0,7	Eye Dam. 1, H318

Sonstige Bestandteile: Spanplatte 18,1 %, Wasser 29,7 %

Wortlaut der H- und EUH-Sätze: siehe Abschnitt 16.

4. Abschnitt: erste Hilfe-Maßnahmen

4.1 **Beschreibung der Erste-Hilfe-Maßnahmen**

Diese Hinweise gelten für Fälle von Staubexposition bei der Plattenverarbeitung. Wenn Sie sich nach der Exposition nicht wohl fühlen oder das Problem weiterhin besteht, suchen Sie einen Arzt auf.

Nach Einatmen:	Opfer an die frische Luft bringen. Suchen Sie einen Arzt auf, wenn Probleme auftreten.
Nach Hautkontakt:	Betroffene Haut gründlich mit Wasser und Seife waschen.
Nach Augenkontakt:	Augen bei geöffnetem Lidspalt gründlich mit Wasser spülen. Wenn die betroffene Person Kontaktlinsen hat, entfernen Sie diese sofort. Wenn das Problem weiterhin besteht, wenden Sie sich an einen Spezialisten.
Bei Verschlucken:	Es wird nicht als möglicher Expositionsweg betrachtet.

4.2 **Wichtigste akute und verzögert auftretende Symptome und Wirkungen**
Information nicht verfügbar.

4.3 **Hinweise auf ärztliche Soforthilfe oder Spezialbehandlung**
Spezialfonds sind nicht vorgesehen. Die Behandlung ist symptomatisch.

5. Abschnitt: Maßnahmen zur Brandbekämpfung

5.1 **Löschmittel**

Geeignete Löschmittel	Das Produkt ist nicht brennbar. Passen Sie die Löschmittel den Umgebungsbedingungen an

	Ungeeignete Löschmittel:	Keinen starken Wasserstrahl verwenden. Die Verwendung von Starkstrom kann ein Feuer ausbreiten.

5.2 Besondere vom Stoff oder Gemisch ausgehende Gefahren

Im Brandfall können gefährliche Verbrennungsprodukte entstehen: Kohlenstoffoxide (CO, CO2) und andere gefährliche Gase.

5.3 Hinweise für die Brandbekämpfung

Komplette Schutzausrüstung für Feuerwehrleute.

6. Abschnitt: Maßnahmen bei unbeabsichtigter Freisetzung

6.1 Personenbezogene Vorsichtsmaßnahmen, Schutzausrüstungen und in Notfällen anzuwendende Verfahren

Für ausreichende Belüftung sorgen. Kontakt mit Haut und Augen vermeiden. Staub nicht einatmen. Persönliche Schutzausrüstung verwenden.

6.2 Umweltschutzmaßnahmen

Keine besonderen Maßnahmen erforderlich.

6.3 Methoden und Materialien für Rückhaltung und Reinigung

Wenn das Produkt nicht mechanisch oder anderweitig beschädigt ist, kann es wiederverwendet werden. Kontaminierte Produkte oder Produktreste sammeln und in Abfallsammelbehältern lagern. Gemäß den örtlichen Vorschriften entsorgen.

6.4 Verweis auf andere Abschnitte

siehe Abschnitt 8 und 13.

Abschnitt 7: Handhabung und Lagerung

7.1 Schutzmaßnahmen zur sicheren Handhabung

Bei Arbeiten an zementgebundenen Spanplatten, wie Schneiden, Bohren, Fräsen und Schleifen, persönliche Schutzausrüstung verwenden, siehe 8. Für ausreichende Belüftung sorgen. Handhaben Sie die Bretter in vertikaler Position. Befolgen Sie die Regeln der Arbeitshygiene, waschen Sie sich nach der Arbeit die Hände und das Gesicht.

7.2 Bedingungen zur sicheren Lagerung unter Berücksichtigung von Unverträglichkeiten

An einem überdachten, trockenen Ort lagern, damit die Platten nicht nass werden.

7.3 Finale/ Spezifische Endanwendungen

Information ist nicht verfügbar.

Abschnitt 8: Begrenzung und Überwachung der Exposition/Persönliche Schutzausrüstungen

8.1 Zu überwachende Parameter

Expositionsgrenzwerte nach TRGS 900: sind nicht angegeben

Stoffidentität			Arbeitsplatzgrenzwert		Spitzenbegr.		Änderung
Bezeichnung	EG-Nr./ Listen-Nr	CAS-Nr	ml/m^3 (ppm)	mg/m^3	Überschreitungsfaktor	Bemerkungen	Monat/ Jahr

DNEL - Keine Informationen verfügbar.
PNEC - Keine Informationen verfügbar.

8.2 Begrenzung und Überwachung der Exposition

Sorgen Sie bei der Bearbeitung von zementgebundenen Spanplatten wie Schneiden, Bohren, Fräsen und Schleifen für ausreichende Belüftung. Stellen Sie sicher, dass Personen mit persönlicher Schutzausrüstung mit dem Produkt arbeiten. Nach der Arbeit Hände und Gesicht gründlich mit Wasser und Seife waschen. Bei der Arbeit nicht essen, trinken oder rauchen. Das Überwachungsverfahren für die Gehalte von Stoffen in der Luft am Arbeitsplatz und die Festlegung der Schutzausrüstung werden von dem für Arbeitssicherheit und Gesundheitsschutz verantwortlichen Arbeitnehmer festgelegt.

Kontrolle der beruflichen Exposition:

Atemschutz:	Bei ausreichender Belüftung nicht erforderlich.
Augen-/Gesichtsschutz:	Bei Arbeiten an zementgebundenen Spanplatten Schutzbrille tragen.
Handschutz:	Tragen Sie Arbeitsschutzhandschuhe.
Körperschutz:	Arbeitsschutzkleidung

Begrenzung und Überwachung der Umweltexposition

Information nicht verfügbar

Abschnitt 9: physikalische und chemische Eigenschaften

9.1 Angaben zu den grundlegenden physikalischen und chemischen Eigenschaften

Aggregatzustand:	Fest
Farbe:	Je nach Farbton
Geruch:	Information nicht verfügbar
Schmelzpunkt / Gefrierpunkt (° C):	Information nicht verfügbar
Siedepunkt oder Siedebeginn und Siedebereich	Information nicht verfügbar
Entzündbarkeit:	Nicht brennbar
Untere und obere Explosionsgrenze	Information nicht verfügbar
Flammpunkt	Information nicht verfügbar
Zündtemperatur	Information nicht verfügbar
Zersetzungstemperatur	Information nicht verfügbar
pH-Wert	Information nicht verfügbar
Kinematische Viskosität	Information nicht verfügbar
Löslichkeit	Information nicht verfügbar
Verteilungskoeffizient n-Oktanol/Wasser (log-Wert)	Information nicht verfügbar
Dampfdruck	Information nicht verfügbar
Dichte und/oder relative Dichte	Information nicht verfügbar
Relative Dampfdichte	Information nicht verfügbar
Partikeleigenschaften	Information nicht verfügbar

9.2 Sonstige Angaben

Luftfeuchtigkeit (Gewicht%): 9 +/- 4

Abschnitt 10: Stabilität und Reaktivität

10.1 Reaktivität
Das Produkt ist unter normalen Bedingungen nicht reaktiv.

10.2 Chemische Stabilität
Das Produkt ist unter normalen Bedingungen stabil.

10.3 Möglichkeit gefährlicher Reaktionen
Unerwartet.

10.4 Zu vermeidende Bedingungen
Vermeiden Sie es, das Produkt nass zu machen

10.5 Unverträgliche Materialien
Informationen sind nicht verfügbar

10.6 Gefährliche Zersetzungsprodukte
Informationen sind nicht verfügbar

Abschnitt 11: Toxikologische Angaben

11.1 Angaben zu den Gefahrenklassen im Sinne der Verordnung (EG) Nr. 1272/2008

a) Akute Toxizität
Auf der Grundlage der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.
Aluminium sulfate: LD50, oral, 6200 mg/kg, ratte
Silicic acid, sodium salt: oral, 3400 mg/kg, ratte

b) Korrosion/Hautreizungen
Kann die Atemwege reizen.

c) Ernsthafte Schäden/Augenreizung
Verursacht schwere Augenschäden.

d) Sensibilisierung der Atemwege oder Haut
Kann allergische Hautreaktionen verursachen.

e) Mutagenitav Keimzellen
Auf der Grundlage der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.

f) Karzinogenität
Auf der Grundlage der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.

g) Toxizität für die Reproduktion
Auf der Grundlage der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.

h) Spezifische Zielorgan Toxizität – einmaliger Exposition
Kann die Atemwege reizen.

i) Spezifische Zielorgan Toxizität – wiederholte Exposition
Auf der Grundlage der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.

j) Aspirationsgefahr
Auf der Grundlage der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.

11.2 Angaben über sonstige Gefahren
Das Produkt ist in der vom Hersteller gelieferten Form nicht gefährlich. Bei der Herstellung von zementgebundenen Spanplatten (Mischen von losen Zuschlägen und Wasser, Pressen der Platten, Aushärten und Trocknen) werden die irritierenden Wirkungen einzelner Komponenten eliminiert und das resultierende Produkt hat keine nachteiligen Auswirkungen auf die menschliche Gesundheit. Bei der Weiterverarbeitung zementgebundener Spanplatten (z. B. Schneiden, Schleifen) entsteht Staub, der reizend und sensibilisierend wirken kann.

Abschnitt 12: Umweltbezogene Angaben

12.1 Toxizität
Das Produkt ist nicht gefährlich für Wasserorganismen.

12.2 Persistenz und Abbaubarkeit
Daten sind nicht verfügbar.

12.3 Bioakkumulationspotenzial
Daten sind nicht verfügbar.

12.4 Mobilität im Boden
Daten sind nicht verfügbar.

12.5 Die Ergebnisse der PBT- und vPvB-Beurteilung
Produktbestandteile werden nicht als PBT oder vPvB bewertet.

12.6 Endokrinschädliche Eigenschaften
Sie sind nicht

12.7 Andere schädliche Wirkungen
Information nicht verfügbar

Abschnitt 13: Hinweise zur Entsorgung

13.1 Verfahren der Abfallbehandlung

a)	Die geeigneten Methoden für die Entsorgung der Substanz oder der Vorbereitung und der kontaminierte Verpackungen: Übergeben Sie den gekennzeichneten Abfall zur Entsorgung an ein für diese Tätigkeit zugelassenes Fachunternehmen. Abfall gemäß Abfallgesetz entsorgen.
b)	Physikalisch/chemischen Eigenschaften, die die Art und Weise den Umgang mit Abfällen beeinträchtigen können Nicht aufgeführt sind.
c)	Die Entsorgung von Abfällen durch Kanalisation vermeiden Es wird nicht erwähnt.
d)	Besondere Sicherheitsmaßnahmen für die empfohlene Abfallwirtschaft Nicht aufgeführt sind.

Abschnitt 14: Angaben zum transport

Das Produkt unterliegt nicht den Vorschriften für den Transport gefährlicher Güter

14.1 UN-Nummer oder ID-Nummer: -

14.2 Ordnungsgemäße UN-Versandbezeichnung

Landverkehr ADR	-
Schienenverkehr Befreien	
Seeverkehr IMDG:	
Lufttransport ICAO/IATA:	

14.3 Transportgefahrenklassen

Landverkehr ADR	*Schienenverkehr Befreien*	*Seeverkehr IMDG:*	*Lufttransport ICAO/IATA:*
-	-	-	-

14.4 Verpackungsgruppe

Landverkehr ADR	*Schienenverkehr Befreien*	Seeverkehr IMDG:	*Lufttransport ICAO/IATA:*
-	-	-	-

14.5	**Umweltgefahren**
	Das Produkt ist während des Transports nicht umweltgefährdend.
14.6	**Besondere Vorsichtsmaßnahmen für den Verwender**
	Unzutreffend.
14.7	**Massengutbeförderung auf dem Seeweg gemäß IMO-Instrumenten**
	Information ist nicht verfügbar.

Abschnitt 15: Rechtsvorschriften

15.1	**Vorschriften zu Sicherheit, Gesundheits- und Umweltschutz/spezifische Rechtsvorschriften für den Stoff oder das Gemisch** Verordnung (EG) 1907/2006 (REACH), Verordnung (EG) 1272/2008 (CLP), Das Abfallgesetz
15.2	**Stoffsicherheitsbeurteilung** Die Stoffsicherheitsbeurteilung wurde vom Hersteller nicht durchgeführt.

Abschnitt 16: Sonstige Angaben

	a)	Änderungen durch die Revisionsnummer 1 vom Tag 24.1.2022: Übersetzung des Sicherheitsdatenblattes ins Deutsche	
	b)	Abkürzungen und Akronyme	
		DNEL	Abgeleitete No-Effect Level (Konzentration des Stoffes, abgeleitete keine-Effect Level)
		PNEC	Vorhergesagten No Wirkungskonzentration (eine Schätzung der Konzentration des Stoffes in dem die Nebenwirkungen nicht auftreten)
		PEL	der zulässige Grenzwert, eine langfristige (8 Std.)
		NPK-P	zulässige Höchstkonzentration, kurzfristige Begrenzung
		CLP-VERORDNUNG	Verordnung Nr. 1272/2008/EG
		ERREICHEN	Verordnung Nr. 1907/2006/EG
		PBT	der Stoff persistent, bioakkumulierbar (vPvB) und giftig bei gleichzeitiger
		vPvB	die Substanz ist hochgradig persistent und bioakkumulierbar (vPvB) sind zum gleichen Zeitpunkt höchst
		Ld50, LC50- oder EC50, IC50	die Konzentration einer Substanz, die zu 50 % der Organismen in der Toxizitätstest tödlich ist
		Skin Irrit. 2	Ätz-/Reizwirkung auf die Haut
		Eye Dam. 1	Schwere Augenschäden / Augenreizungen, Kategorie 1
		Skin Sens. 1	Hautsensibilisierung, Kategorie 1
		STOT SE 3	Spezifische Zielorgan-Toxizität (einmalige Exposition)
	c)	Wichtige Hinweise auf Literatur und Datenquellen Staatliche Gesetzgebung, Fachliteratur, ECHA-Website. Die Klassifizierung des Gemisches wurde vom Hersteller gemäß den EG-Klassifizierungsregeln 1272/2008 - Berechnungsmethode durchgeführt	
	d)	Wortlaut der H-Sätze (Nummer und Volltext) H317 Kann allergische Hautreaktionen verursachen. H318 Verursacht schwere Augenschäden. H315 Verursacht Hautreizungen. H335 Kann die Atemwege reizen.	
	e)	Trainingsberatung Arbeiten Sie Sicherheitstraining für den Umgang mit Chemikalien.	
	f)	Weitere Angaben Die Angaben in diesem Sicherheitsdatenblatt entsprechen nach bestem Wissen des Produkts zum Zeitpunkt der Veröffentlichung. Diese Informationen werden nur für eine genauere und sichere Handhabung, Lagerung, Transport und Entnahme des Füllgutes verwendet. Können nicht als Garantie oder Klärung von der Qualität des Produkts angesehen werden. Diese Information gilt nur für die ausdrücklich erklärtes Material und nicht gelten, wenn es, in Kombination mit anderen Materialien oder in einer anderen, in den Text von diesem Sicherheitsdaten verwendet wird Blatt speziell Neudanými Prozesse.	

CETRIS®
www.cetris.cz

Hranice, am 3. November 2021

Borinhalt in der zementgebundenen Spanplatte Cetris

Sehr geehrte Damen und Herren,

hiermit bestätigen wir, dass die zementgebundene Spanplatte CETRIS keinen chemischen Holzschutz beinhaltet. Genauso wird die Platte mit keinem Produkt behandelt, das das Bor-Element beinhaltet.

Mit freundlichem Gruss

CETRIS
www.cetris.cz
02
CIDEM Hranice, a.s. divize CETRIS
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IČO: 14617081 DIČ: CZ14617081
Tel.: +420 581 676 298 Fax: +420 581 601 454

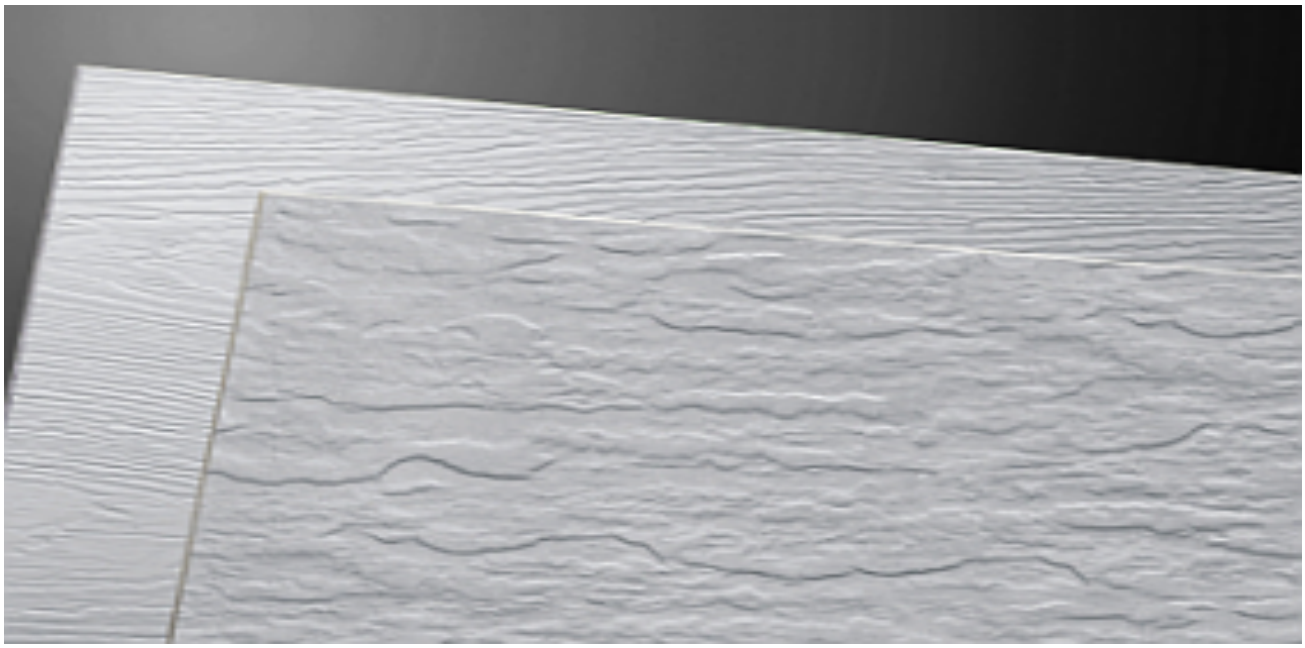
Dipl. -Ing. Martin Klvač
Direktor Cetris

Environmental Product Declaration

In accordance with ISO 14025 and EN 15804:2012+A2:2019/AC:2021 for:

Cement-bonded particleboards CETRIS®

CETRIS®
www.cetris.cz



Programme:	Czech Environmental Information Agency (CENIA), “National programme of environmental labelling” - CZ
Programme operator:	CENIA, Czech Environmental Information Agency, Executive body of NPEZ Agency
EPD owner:	CIDEM Hranice, a.s.
Author:	LCA Studio s.r.o.
Publication date:	20.10.2025
Valid until:	20.10.2030

GENERAL INFORMATION

Followed standards and third-party verification	
Standards	This EPD is carried out according to ISO 14025:2006 and EN 15804:2012+A2:2019/AC:2021
Third-party verification	Independent third-party verification of the declaration and data, according to ISO 14025:2006, via: ☒ Individual EPD verification without a pre-verified LCA/EPD tool Third-party verifier: prof. Ing. Silvia Vilčeková, PhD., Silcert, s.r.o.
	Procedure for follow-up of data during EPD validity involves third party verifier: ☐ Yes ☒ No
LCA practitioner, commissioned by the owner of the EPD	
Name	LCA Studio s.r.o.
Address	Šárecká 1962/5, 16000 Prague 6, Czech Republic, www.lcastudio.cz
Contact	Ing. Aleš Paulu, Ph.D. (ales.paulu@lcastudio.cz) prof. Ing. Vladimír Kočí, Ph.D., MBA (vladimir.koci@lcastudio.cz) Ing. et Ing. Tatiana Trecáková, Ph.D. (tatiana.trecakova@lcastudio.cz)

The EPD owner has the sole ownership, liability, and responsibility for the EPD.

EPDs within the same product category but published in different EPD programmes, may not be comparable. For two EPDs to be comparable, they shall be based on the same PCR (including the same first-digit version number) or be based on fully aligned PCRs or versions of PCRs; cover products with identical functions, technical performances and use (e.g. identical declared/functional units); have identical scope in terms of included life-cycle stages (unless the excluded life-cycle stage is demonstrated to be insignificant); apply identical impact assessment methods (including the same version of characterisation factors); and be valid at the time of comparison.

For further information about comparability, see EN 15804 and ISO 14025.

COMPANY INFORMATION

Owner of the EPD	
Name	CIDEM Hranice, a.s.
Address	Skalní 1088, 753 01 Hranice I – Město, Czech Republic, www.cetris.cz
Contact	Ing. Marie Libosvárová (libosvarova@cetris.cz)

Description of the EPD owner organisation:
CIDEM Hranice, a.s. – CETRIS Division is a manufacturer of board materials marketed under the CETRIS® trademark for cement-bonded particleboards. Construction of the production plant in the Czech Republic began in 1987, and the facility was commissioned in 1991. In 2011, the company marked 20 years since the material's market launch. In the early years, the range was limited to the CETRIS® BASIC board without any surface finish. Over time, the product portfolio expanded to include various services such as cutting, milling, grinding, drilling, and surface finishing. Today, CIDEM Hranice a.s. offers 17 types of cement-bonded particleboards and continue to develop new variants to meet the evolving needs of customers. CIDEM Hranice, a.s. – CETRIS Division is now the largest producer of cement-bonded particleboards in Europe, with an annual production capacity of 45 000 m^3.

Location of the production site:
The production plant is located in Hranice, Czech Republic.

PRODUCT INFORMATION

This EPD is valid for the following products:	Cement-bonded particle board CETRIS – basic Cement-bonded particle board CETRIS – serviced (cut, shaped and grinded) Cement-bonded particle board CETRIS – painted Cement-bonded particle board CETRIS – serviced and painted Cement-bonded particle board CETRIS Eco – basic Cement-bonded particle board CETRIS Eco – serviced (cut, shaped and grinded)
UN CPC code	3752: Boards, blocks and similar articles of vegetable fibre, straw or wood waste agglomerated with mineral binders

CETRIS® - basic and **CETRIS® Eco - basic** are cement-bonded particleboards with a smooth, natural cement-grey surface. Both products are composed of wood chips, Portland cement, water and hydration additives.

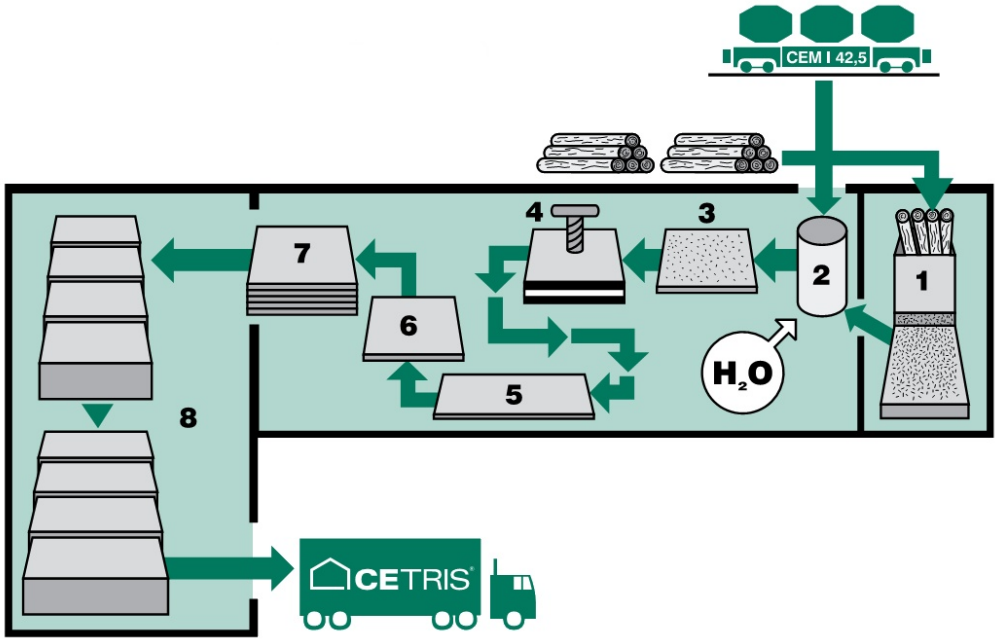
Standard thicknesses:
CETRIS®: 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30 and 32 mm
CETRIS® Eco: 30, 32, 34, 36, 38 and 40 mm

Dimensions and processing options:
The standard board size is 3 350 × 1 250 mm. Boards can be supplied cut to customer-specified dimensions. CETRIS® - basic is also available with rounded or bevelled edges (45°), milled with a rebate (from 12 mm thickness), tongue-and-groove joints (from 16 mm thickness), or with pre-drilled holes.

Applications and properties:
Designed primarily as structural material where moisture resistance, strength, non-combustibility, and environmental and hygienic safety are required. CETRIS® boards do not contain asbestos or formaldehyde, are resistant to insects and mould, provide sound insulation, and can be worked with standard woodworking tools.

Appearance and handling:
As cement-based products, free lime particles in Portland cement may migrate to the surface, where carbonation in contact with air can cause efflorescence, affecting the uniformity of the surface colour. The surface is not colour-uniform, and appearance-based complaints cannot be accepted.

Production flow-chart:



1 - spilling; 2 - preparations of mixture; 3 - layering of boards; 4 - pressing; 5 - drying; 6 - formatting; 7 - storage; 8 - transport.

CONTENT DECLARATION

The CIDEM Hranice, a.s cement-bonded particleboards consist of Portland cement and a mixture of wooden chips. All the constituents of cement-bonded particleboard are not classified as harmful, nor are listed on the list of Substances of Very High Concern (SVHC).

Product content	Mass [kg]	Mass [kg]	Biogenic material, kg of C per declared unit	Biogenic material, kg of C per declared unit
Product	**CETRIS**	**CETRIS Eco**	**CETRIS**	**CETRIS Eco**
Total	1450	1450	124	156
Cement	798	933	0	0
Wood chips	250	316	124	156
Limestone	221	-	0	0
Recycled materials	-	19.6	0	0
Hydration additives	35.6	36.4	0	0
Water	145	145	0	0

Packaging content	Mass [kg]	Mass [kg]	Biogenic material, kg of C per declared unit	Biogenic material, kg of C per declared unit
Product	**CETRIS**	**CETRIS Eco**	**CETRIS**	**CETRIS Eco**
Total	14.8	14.8	8.20	8.20
PE film	0.490	0.490	0	0
PP film	0.0620	0.0620	0	0
Wood palettes	14.2	14.2	8.20	8.20

1 kg biogenic carbon in the product/packaging is equivalent to the uptake of 44/12 kg of CO_2.

No post-consumer recycled material content is present in the products.

No substances included in the Candidate List of Substances of Very High Concern for authorization under the REACH regulations are present in the products either above the threshold for registration with the European Chemicals Agency or above 0.1% weight.

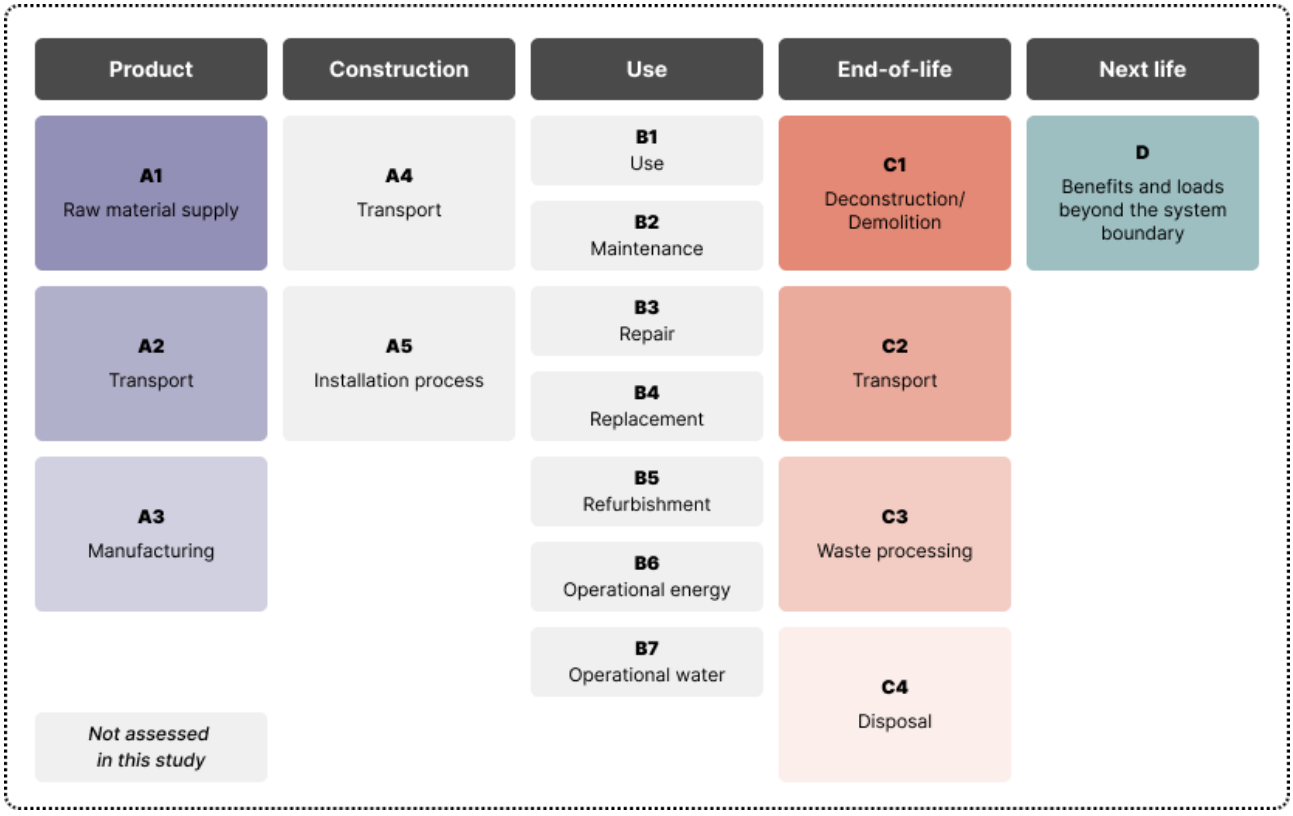
LCA INFORMATION

Functional/Declared unit	1 m^3 of cement-bonded particleboards
Reference service life:	The reference service life is the same as that of the building.
Time representativeness:	Specific manufacturer data are based on a one-year average (reference year 2024). For background data, a time scope of less than 10 years was applied.
Cut off rules:	The cut-off criterion was determined according to the EN 15804:2012+A2:2019/AC:2021 standard. In line with the requirements, more than 95% of flows were included.
Database(s) and LCA software used:	Sphera LCA for Experts software, Sphera 2025.1 and ecoinvent 3.9.1 databases
Allocations:	The general allocation rule was based on 1 m^3 of the product. No secondary materials or fuels were used in production.
Geographical scope:	Czech Republic, Europe, Global
Electricity mix	Generation of electricity consumed within the production was based on the Czech residual electricity mix.
Characterization factors	Characterisation factors are based on Environmental Footprint (EF) 3.1
Conversion to mass	The conversion factor for recalculating to mass (including packaging) is 0.0006897. To express the results per 1 kg, the values should be multiplied by this factor.

System boundary

The system boundary is "Cradle to gate" with modules C1–C4 and module D (A1–A3 + C + D). It covers the production of raw materials, all relevant transport down to factory gate and manufacturing by CIDEM Hranice, a.s., deconstruction, transport to landfill and landfilling. The review framework comprises the following details:

- Raw materials acquisition and transport
- Further processing of raw materials
- Production operations
- Energy and water consumption
- Waste management
- Packaging of the final product for delivery
- Typical deconstruction



Module A1 covers the production of materials and components for CIDEM Hranice a.s. and it includes fuels and energy carriers (electricity, natural gas). This consists of the production of input materials such as wood, cement or limestone.

Module A2 covers the transport of materials into the site of production CIDEM Hranice a.s. Generic database processes with site-specific parameters for distances were used.

Module A3 covers on-site operated processes dealing with particleboard production and packaging. These processes are under the operational control of CIDEM Hranice a.s.. These are specific processes modelled based on data collection.

Module C1 covers estimated energy for deconstruction related to the mass of deconstructed material. In this study, the deconstruction is assumed to be carried out by a hydraulic medium-size excavator with 100 kW engine power.

Module C2 covers the transport of materials to a landfill site. Generic database processes were used with an estimated general distance of 100 kilometres by truck.

Module C3 covers waste processing before disposal. No waste processing is assumed in this study as all particleboard products are assumed as being sent to a landfill when they reach their end-of-life.

Module C4 covers the process for landfilling of particleboard products.

Module D covers the potential benefits and loads beyond the system boundary—specifically those related to the reuse, recovery, and recycling of materials and energy at the end of life of a construction product. No benefits are assumed in this study as particleboards are assumed as being landfilled.

A1 - A3 Product stage	Raw material supply	A1	X
	Transport	A2	X
	Manufacturing	A3	X
A4 - A5 Construction process	Transport from the gate to the site	A4	ND
	Assembly	A5	ND
B1 - B7 Use stage	Use	B1	ND
	Maintenance	B2	ND
	Repair	B3	ND
	Replacement	B4	ND
	Refurbishment	B5	ND
	Operational water use	B6	ND
	Operational energy use	B7	ND
C1 - C4 End of life stage	De-construction	C1	X
	Transport	C2	X
	Waste processing	C3	X
	Disposal	C4	X
D Benefits and loads beyond the system boundaries	Reuse- Recycling - Recovery Potential	D	X

X = declared module, ND = not declared module

ENVIRONMENTAL PERFORMANCE

Impact contribution

The share of the primary data on GWP-GHG indicator results is 11.7% for electricity and 2.7 % for transport for the **CETRIS – basic** product. The processes that contribute to more than 10% of the total GWP-GHG indicator are the supply chains of consumed cement materials and electrical energy.

The share of the primary data on GWP-GHG indicator results is 11.2% for electricity and 2.4 % for transport for the **CETRIS Eco – basic** product. The processes that contribute to more than 10% of the total GWP-GHG indicator are the supply chains of consumed cement materials and electrical energy.

Environmental indicators

Environmental indicator results per declared unit for each module are reported in the following tables.

Environmental indicator results are calculated according to ISO 14025 and EN 15804+A2:2019. Results are expressed per declared unit – 1 m^3 of cement-bonded particleboard.

Life cycle impact assessment results of the particleboard CETRIS – basic.

Indicators	A1-A3	C1	C2	C3	C4	D
1. Environmental impact indicators [unit]						
GWP-GHG [kg CO_2 eq.]	8.83E+02	9.64E-01	1.36E+01	0.00E+00	2.23E+01	0.00E+00
Climate Change - total [kg CO_2 eq.]	4.09E+02	9.63E-01	1.36E+01	0.00E+00	4.97E+02	0.00E+00
Climate Change, fossil [kg CO_2 eq.]	8.82E+02	9.52E-01	1.34E+01	0.00E+00	2.22E+01	0.00E+00
Climate Change, biogenic [kg CO_2 eq.]	-4.73E+02	8.73E-04	1.19E-03	0.00E+00	4.75E+02	0.00E+00
Climate Change, land use and land use change [kg CO_2 eq.]	7.16E-01	9.65E-03	1.38E-01	0.00E+00	9.08E-02	0.00E+00
Ozone depletion [kg CFC-11 eq.]	9.00E-07	1.56E-13	2.23E-12	0.00E+00	6.23E-11	0.00E+00
Acidification [Mole of H^+ eq.]	1.23E+00	4.81E-03	1.61E-02	0.00E+00	1.57E-01	0.00E+00
Eutrophication, freshwater [kg P eq.]	1.98E-02	2.53E-06	3.61E-05	0.00E+00	3.30E-05	0.00E+00
Eutrophication, marine [kg N eq.]	3.06E-01	2.31E-03	5.98E-03	0.00E+00	4.10E-02	0.00E+00
Eutrophication, terrestrial [Mole of N eq.]	3.42E+00	2.50E-02	6.28E-02	0.00E+00	4.47E-01	0.00E+00
Photochemical ozone formation, human health [kg NMVOC eq.]	9.71E-01	6.24E-03	1.42E-02	0.00E+00	1.23E-01	0.00E+00
Resource use, mineral and metals [kg Sb eq.]	7.53E-04	6.23E-08	8.92E-07	0.00E+00	1.37E-06	0.00E+00
Resource use, fossils [MJ]	4.80E+03	1.20E+01	1.72E+02	0.00E+00	2.91E+02	0.00E+00
Water use [m^3 world equiv.]	4.63E+01	4.29E-03	6.13E-02	0.00E+00	2.39E+00	0.00E+00
2. Resource use indicators [unit]						
Use of renewable primary energy (PERE) [MJ]	1.64E+03	9.05E-01	1.30E+01	0.00E+00	5.62E+01	0.00E+00
Use of renewable primary energy as raw materials (PERM) [MJ]	2.80E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Total use of renewable primary energy resources (PERT) [MJ]	4.44E+03	9.05E-01	1.30E+01	0.00E+00	5.62E+01	0.00E+00
Use of non-renewable primary energy (PENRE) [MJ]	4.80E+03	1.20E+01	1.72E+02	0.00E+00	2.91E+02	0.00E+00
Use of non-renewable primary energy as raw materials (PENRM) [MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Total use of non-renewable primary energy resources (PENRT) [MJ]	4.80E+03	1.20E+01	1.72E+02	0.00E+00	2.91E+02	0.00E+00
Input of secondary material (SM) [kg]	1.61E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.00E+00
Use of renewable secondary fuels (RSF) [MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of non-renewable secondary fuels (NRSF) [MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of net fresh water (FW) [m3]	1.80E+00	4.47E-04	6.40E-03	0.00E+00	7.00E-02	0.00E+00

Life cycle impact assessment results of the particleboard CETRIS – basic.

Indicators	A1-A3	C1	C2	C3	C4	D
3. Output flows and waste categories [unit]						
Hazardous waste disposed (HWD) [kg]	1.42E-06	4.82E-10	6.89E-09	0.00E+00	6.40E-08	0.00E+00
Non-hazardous waste disposed (NHWD) [kg]	9.21E+00	1.68E-03	2.40E-02	0.00E+00	1.45E+03	0.00E+00
Radioactive waste disposed (RWD) [kg]	3.81E-01	2.27E-05	3.24E-04	0.00E+00	3.04E-03	0.00E+00
Components for re-use [kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Material for recycling [kg]	3.77E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Materials for energy recovery [kg]	6.53E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy, electricity [MJ]	9.56E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy, thermal [MJ]	1.88E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4. Optional indicators [unit]						
Particulate matter [Disease incidences]	1.82E-05	5.62E-08	1.62E-07	0.00E+00	1.95E-06	0.00E+00
Ionising radiation, human health [kBq U235 eq.]	3.16E+01	3.26E-03	4.66E-02	0.00E+00	3.31E-01	0.00E+00
Ecotoxicity, freshwater [CTUe]	2.04E+03	1.56E+01	2.23E+02	0.00E+00	2.25E+02	0.00E+00
Human toxicity, cancer [CTUh]	1.27E-07	2.11E-10	3.01E-09	0.00E+00	3.87E-09	0.00E+00
Human toxicity, non-cancer [CTUh]	4.25E-06	1.18E-08	1.68E-07	0.00E+00	1.45E-07	0.00E+00
Land Use [Pt]	9.71E+03	5.31E+00	7.60E+01	0.00E+00	7.45E+01	0.00E+00

Life cycle impact assessment results of the particleboard CETRIS – serviced.

Indicators	A1-A3	C1	C2	C3	C4	D
1. Environmental impact indicators [unit]						
GWP-GHG [kg CO_2 eq.]	8.92E+02	9.64E-01	1.36E+01	0.00E+00	2.23E+01	0.00E+00
Climate Change - total [kg CO_2 eq.]	4.18E+02	9.63E-01	1.36E+01	0.00E+00	4.97E+02	0.00E+00
Climate Change, fossil [kg CO_2 eq.]	8.91E+02	9.52E-01	1.34E+01	0.00E+00	2.22E+01	0.00E+00
Climate Change, biogenic [kg CO_2 eq.]	-4.73E+02	8.73E-04	1.19E-03	0.00E+00	4.75E+02	0.00E+00
Climate Change, land use and land use change [kg CO_2 eq.]	7.67E-01	9.65E-03	1.38E-01	0.00E+00	9.08E-02	0.00E+00
Ozone depletion [kg CFC-11 eq.]	9.00E-07	1.56E-13	2.23E-12	0.00E+00	6.23E-11	0.00E+00
Acidification [Mole of H^+ eq.]	1.27E+00	4.81E-03	1.61E-02	0.00E+00	1.57E-01	0.00E+00
Eutrophication, freshwater [kg P eq.]	1.98E-02	2.53E-06	3.61E-05	0.00E+00	3.30E-05	0.00E+00
Eutrophication, marine [kg N eq.]	3.17E-01	2.31E-03	5.98E-03	0.00E+00	4.10E-02	0.00E+00
Eutrophication, terrestrial [Mole of N eq.]	3.53E+00	2.50E-02	6.28E-02	0.00E+00	4.47E-01	0.00E+00
Photochemical ozone formation, human health [kg NMVOC eq.]	1.00E+00	6.24E-03	1.42E-02	0.00E+00	1.23E-01	0.00E+00
Resource use, mineral and metals [kg Sb eq.]	7.54E-04	6.23E-08	8.92E-07	0.00E+00	1.37E-06	0.00E+00
Resource use, fossils [MJ]	4.93E+03	1.20E+01	1.72E+02	0.00E+00	2.91E+02	0.00E+00
Water use [m^3 world equiv.]	4.69E+01	4.29E-03	6.13E-02	0.00E+00	2.39E+00	0.00E+00
2. Resource use indicators [unit]						
Use of renewable primary energy (PERE) [MJ]	1.66E+03	9.05E-01	1.30E+01	0.00E+00	5.62E+01	0.00E+00
Use of renewable primary energy as raw materials (PERM) [MJ]	2.80E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Total use of renewable primary energy resources (PERT) [MJ]	4.46E+03	9.05E-01	1.30E+01	0.00E+00	5.62E+01	0.00E+00
Use of non-renewable primary energy (PENRE) [MJ]	4.93E+03	1.20E+01	1.72E+02	0.00E+00	2.91E+02	0.00E+00
Use of non-renewable primary energy as raw materials (PENRM) [MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Total use of non-renewable primary energy resources (PENRT) [MJ]	4.93E+03	1.20E+01	1.72E+02	0.00E+00	2.91E+02	0.00E+00
Input of secondary material (SM) [kg]	1.61E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.00E+00
Use of renewable secondary fuels (RSF) [MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of non-renewable secondary fuels (NRSF) [MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of net fresh water (FW) [m3]	1.83E+00	4.47E-04	6.40E-03	0.00E+00	7.00E-02	0.00E+00

Life cycle impact assessment results of the particleboard CETRIS – serviced.

Indicators	A1-A3	C1	C2	C3	C4	D
3. Output flows and waste categories [unit]						
Hazardous waste disposed (HWD) [kg]	1.44E-06	4.82E-10	6.89E-09	0.00E+00	6.40E-08	0.00E+00
Non-hazardous waste disposed (NHWD) [kg]	3.30E+02	1.68E-03	2.40E-02	0.00E+00	1.45E+03	0.00E+00
Radioactive waste disposed (RWD) [kg]	3.86E-01	2.27E-05	3.24E-04	0.00E+00	3.04E-03	0.00E+00
Components for re-use [kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Material for recycling [kg]	3.77E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Materials for energy recovery [kg]	6.53E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy, electricity [MJ]	9.56E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy, thermal [MJ]	1.88E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4. Optional indicators [unit]						
Particulate matter [Disease incidences]	1.87E-05	5.62E-08	1.62E-07	0.00E+00	1.95E-06	0.00E+00
Ionising radiation, human health [kBq U235 eq.]	3.19E+01	3.26E-03	4.66E-02	0.00E+00	3.31E-01	0.00E+00
Ecotoxicity, freshwater [CTUe]	2.14E+03	1.56E+01	2.23E+02	0.00E+00	2.25E+02	0.00E+00
Human toxicity, cancer [CTUh]	1.29E-07	2.11E-10	3.01E-09	0.00E+00	3.87E-09	0.00E+00
Human toxicity, non-cancer [CTUh]	4.32E-06	1.18E-08	1.68E-07	0.00E+00	1.45E-07	0.00E+00
Land Use [Pt]	9.74E+03	5.31E+00	7.60E+01	0.00E+00	7.45E+01	0.00E+00

Life cycle impact assessment results of the particleboard CETRIS – painted.

Indicators	A1-A3	C1	C2	C3	C4	D
1. Environmental impact indicators [unit]						
GWP-GHG [kg CO_2 eq.]	1.38E+03	9.64E-01	1.36E+01	0.00E+00	2.23E+01	0.00E+00
Climate Change - total [kg CO_2 eq.]	9.09E+02	9.63E-01	1.36E+01	0.00E+00	4.97E+02	0.00E+00
Climate Change, fossil [kg CO_2 eq.]	1.38E+03	9.52E-01	1.34E+01	0.00E+00	2.22E+01	0.00E+00
Climate Change, biogenic [kg CO_2 eq.]	-4.71E+02	8.73E-04	1.19E-03	0.00E+00	4.75E+02	0.00E+00
Climate Change, land use and land use change [kg CO_2 eq.]	9.43E-01	9.65E-03	1.38E-01	0.00E+00	9.08E-02	0.00E+00
Ozone depletion [kg CFC-11 eq.]	9.02E-07	1.56E-13	2.23E-12	0.00E+00	6.23E-11	0.00E+00
Acidification [Mole of H^+ eq.]	2.43E+00	4.81E-03	1.61E-02	0.00E+00	1.57E-01	0.00E+00
Eutrophication, freshwater [kg P eq.]	2.03E-02	2.53E-06	3.61E-05	0.00E+00	3.30E-05	0.00E+00
Eutrophication, marine [kg N eq.]	5.75E-01	2.31E-03	5.98E-03	0.00E+00	4.10E-02	0.00E+00
Eutrophication, terrestrial [Mole of N eq.]	6.38E+00	2.50E-02	6.28E-02	0.00E+00	4.47E-01	0.00E+00
Photochemical ozone formation, human health [kg NMVOC eq.]	1.85E+00	6.24E-03	1.42E-02	0.00E+00	1.23E-01	0.00E+00
Resource use, mineral and metals [kg Sb eq.]	1.69E-03	6.23E-08	8.92E-07	0.00E+00	1.37E-06	0.00E+00
Resource use, fossils [MJ]	1.32E+04	1.20E+01	1.72E+02	0.00E+00	2.91E+02	0.00E+00
Water use [m^3 world equiv.]	9.07E+01	4.29E-03	6.13E-02	0.00E+00	2.39E+00	0.00E+00
2. Resource use indicators [unit]						
Use of renewable primary energy (PERE) [MJ]	2.52E+03	9.05E-01	1.30E+01	0.00E+00	5.62E+01	0.00E+00
Use of renewable primary energy as raw materials (PERM) [MJ]	2.80E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Total use of renewable primary energy resources (PERT) [MJ]	5.33E+03	9.05E-01	1.30E+01	0.00E+00	5.62E+01	0.00E+00
Use of non-renewable primary energy (PENRE) [MJ]	1.32E+04	1.20E+01	1.72E+02	0.00E+00	2.91E+02	0.00E+00
Use of non-renewable primary energy as raw materials (PENRM) [MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Total use of non-renewable primary energy resources (PENRT) [MJ]	1.32E+04	1.20E+01	1.72E+02	0.00E+00	2.91E+02	0.00E+00
Input of secondary material (SM) [kg]	2.41E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.00E+00
Use of renewable secondary fuels (RSF) [MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of non-renewable secondary fuels (NRSF) [MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of net fresh water (FW) [m3]	4.19E+00	4.47E-04	6.40E-03	0.00E+00	7.00E-02	0.00E+00

Life cycle impact assessment results of the particleboard CETRIS – painted.

Indicators	A1-A3	C1	C2	C3	C4	D
3. Output flows and waste categories [unit]						
Hazardous waste disposed (HWD) [kg]	2.75E-06	4.82E-10	6.89E-09	0.00E+00	6.40E-08	0.00E+00
Non-hazardous waste disposed (NHWD) [kg]	2.47E+02	1.68E-03	2.40E-02	0.00E+00	1.45E+03	0.00E+00
Radioactive waste disposed (RWD) [kg]	1.13E+00	2.27E-05	3.24E-04	0.00E+00	3.04E-03	0.00E+00
Components for re-use [kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Material for recycling [kg]	3.77E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Materials for energy recovery [kg]	2.61E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy, electricity [MJ]	3.71E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy, thermal [MJ]	7.04E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4. Optional indicators [unit]						
Particulate matter [Disease incidences]	3.21E-05	5.62E-08	1.62E-07	0.00E+00	1.95E-06	0.00E+00
Ionising radiation, human health [kBq U235 eq.]	8.26E+01	3.26E-03	4.66E-02	0.00E+00	3.31E-01	0.00E+00
Ecotoxicity, freshwater [CTUe]	5.98E+03	1.56E+01	2.23E+02	0.00E+00	2.25E+02	0.00E+00
Human toxicity, cancer [CTUh]	2.21E-07	2.11E-10	3.01E-09	0.00E+00	3.87E-09	0.00E+00
Human toxicity, non-cancer [CTUh]	7.06E-06	1.18E-08	1.68E-07	0.00E+00	1.45E-07	0.00E+00
Land Use [Pt]	1.11E+04	5.31E+00	7.60E+01	0.00E+00	7.45E+01	0.00E+00

Life cycle impact assessment results of the particleboard CETRIS – serviced and painted.

Indicators	A1-A3	C1	C2	C3	C4	D
1. Environmental impact indicators [unit]						
GWP-GHG [kg CO_2 eq.]	1.39E+03	9.64E-01	1.36E+01	0.00E+00	2.23E+01	0.00E+00
Climate Change - total [kg CO_2 eq.]	9.19E+02	9.63E-01	1.36E+01	0.00E+00	4.97E+02	0.00E+00
Climate Change, fossil [kg CO_2 eq.]	1.39E+03	9.52E-01	1.34E+01	0.00E+00	2.22E+01	0.00E+00
Climate Change, biogenic [kg CO_2 eq.]	-4.71E+02	8.73E-04	1.19E-03	0.00E+00	4.75E+02	0.00E+00
Climate Change, land use and land use change [kg CO_2 eq.]	9.93E-01	9.65E-03	1.38E-01	0.00E+00	9.08E-02	0.00E+00
Ozone depletion [kg CFC-11 eq.]	9.02E-07	1.56E-13	2.23E-12	0.00E+00	6.23E-11	0.00E+00
Acidification [Mole of H^+ eq.]	2.47E+00	4.81E-03	1.61E-02	0.00E+00	1.57E-01	0.00E+00
Eutrophication, freshwater [kg P eq.]	2.03E-02	2.53E-06	3.61E-05	0.00E+00	3.30E-05	0.00E+00
Eutrophication, marine [kg N eq.]	5.86E-01	2.31E-03	5.98E-03	0.00E+00	4.10E-02	0.00E+00
Eutrophication, terrestrial [Mole of N eq.]	6.49E+00	2.50E-02	6.28E-02	0.00E+00	4.47E-01	0.00E+00
Photochemical ozone formation, human health [kg NMVOC eq.]	1.88E+00	6.24E-03	1.42E-02	0.00E+00	1.23E-01	0.00E+00
Resource use, mineral and metals [kg Sb eq.]	1.69E-03	6.23E-08	8.92E-07	0.00E+00	1.37E-06	0.00E+00
Resource use, fossils [MJ]	1.33E+04	1.20E+01	1.72E+02	0.00E+00	2.91E+02	0.00E+00
Water use [m^3 world equiv.]	9.12E+01	4.29E-03	6.13E-02	0.00E+00	2.39E+00	0.00E+00
2. Resource use indicators [unit]						
Use of renewable primary energy (PERE) [MJ]	2.54E+03	9.05E-01	1.30E+01	0.00E+00	5.62E+01	0.00E+00
Use of renewable primary energy as raw materials (PERM) [MJ]	2.80E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Total use of renewable primary energy resources (PERT) [MJ]	5.34E+03	9.05E-01	1.30E+01	0.00E+00	5.62E+01	0.00E+00
Use of non-renewable primary energy (PENRE) [MJ]	1.33E+04	1.20E+01	1.72E+02	0.00E+00	2.91E+02	0.00E+00
Use of non-renewable primary energy as raw materials (PENRM) [MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Total use of non-renewable primary energy resources (PENRT) [MJ]	1.33E+04	1.20E+01	1.72E+02	0.00E+00	2.91E+02	0.00E+00
Input of secondary material (SM) [kg]	2.41E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.00E+00
Use of renewable secondary fuels (RSF) [MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of non-renewable secondary fuels (NRSF) [MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of net fresh water (FW) [m3]	4.22E+00	4.47E-04	6.40E-03	0.00E+00	7.00E-02	0.00E+00

Life cycle impact assessment results of the particleboard CETRIS – serviced and painted.

Indicators	A1-A3	C1	C2	C3	C4	D
3. Output flows and waste categories [unit]						
Hazardous waste disposed (HWD) [kg]	2.77E-06	4.82E-10	6.89E-09	0.00E+00	6.40E-08	0.00E+00
Non-hazardous waste disposed (NHWD) [kg]	5.68E+02	1.68E-03	2.40E-02	0.00E+00	1.45E+03	0.00E+00
Radioactive waste disposed (RWD) [kg]	1.14E+00	2.27E-05	3.24E-04	0.00E+00	3.04E-03	0.00E+00
Components for re-use [kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Material for recycling [kg]	3.77E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Materials for energy recovery [kg]	2.61E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy, electricity [MJ]	3.71E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy, thermal [MJ]	7.04E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4. Optional indicators [unit]						
Particulate matter [Disease incidences]	3.26E-05	5.62E-08	1.62E-07	0.00E+00	1.95E-06	0.00E+00
Ionising radiation, human health [kBq U235 eq.]	8.30E+01	3.26E-03	4.66E-02	0.00E+00	3.31E-01	0.00E+00
Ecotoxicity, freshwater [CTUe]	6.08E+03	1.56E+01	2.23E+02	0.00E+00	2.25E+02	0.00E+00
Human toxicity, cancer [CTUh]	2.22E-07	2.11E-10	3.01E-09	0.00E+00	3.87E-09	0.00E+00
Human toxicity, non-cancer [CTUh]	7.14E-06	1.18E-08	1.68E-07	0.00E+00	1.45E-07	0.00E+00
Land Use [Pt]	1.11E+04	5.31E+00	7.60E+01	0.00E+00	7.45E+01	0.00E+00

Life cycle impact assessment results of the particleboard CETRIS Eco – basic.

Indicators	A1-A3	C1	C2	C3	C4	D
1. Environmental impact indicators [unit]						
GWP-GHG [kg CO_2 eq.]	9.91E+02	9.64E-01	1.36E+01	0.00E+00	2.23E+01	0.00E+00
Climate Change - total [kg CO_2 eq.]	4.05E+02	9.63E-01	1.36E+01	0.00E+00	6.09E+02	0.00E+00
Climate Change, fossil [kg CO_2 eq.]	9.90E+02	9.52E-01	1.34E+01	0.00E+00	2.22E+01	0.00E+00
Climate Change, biogenic [kg CO_2 eq.]	-5.85E+02	8.73E-04	1.19E-03	0.00E+00	5.87E+02	0.00E+00
Climate Change, land use and land use change [kg CO_2 eq.]	8.10E-01	9.65E-03	1.38E-01	0.00E+00	9.08E-02	0.00E+00
Ozone depletion [kg CFC-11 eq.]	9.07E-07	1.56E-13	2.23E-12	0.00E+00	6.23E-11	0.00E+00
Acidification [Mole of H^+ eq.]	1.30E+00	4.81E-03	1.61E-02	0.00E+00	1.57E-01	0.00E+00
Eutrophication, freshwater [kg P eq.]	2.06E-02	2.53E-06	3.61E-05	0.00E+00	3.30E-05	0.00E+00
Eutrophication, marine [kg N eq.]	3.28E-01	2.31E-03	5.98E-03	0.00E+00	4.10E-02	0.00E+00
Eutrophication, terrestrial [Mole of N eq.]	3.64E+00	2.50E-02	6.28E-02	0.00E+00	4.47E-01	0.00E+00
Photochemical ozone formation, human health [kg NMVOC eq.]	1.05E+00	6.24E-03	1.42E-02	0.00E+00	1.23E-01	0.00E+00
Resource use, mineral and metals [kg Sb eq.]	7.62E-04	6.23E-08	8.92E-07	0.00E+00	1.37E-06	0.00E+00
Resource use, fossils [MJ]	5.21E+03	1.20E+01	1.72E+02	0.00E+00	2.91E+02	0.00E+00
Water use [m^3 world equiv.]	4.49E+01	4.29E-03	6.13E-02	0.00E+00	2.39E+00	0.00E+00
2. Resource use indicators [unit]						
Use of renewable primary energy (PERE) [MJ]	1.74E+03	9.05E-01	1.30E+01	0.00E+00	5.62E+01	0.00E+00
Use of renewable primary energy as raw materials (PERM) [MJ]	3.46E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Total use of renewable primary energy resources (PERT) [MJ]	5.20E+03	9.05E-01	1.30E+01	0.00E+00	5.62E+01	0.00E+00
Use of non-renewable primary energy (PENRE) [MJ]	5.21E+03	1.20E+01	1.72E+02	0.00E+00	2.91E+02	0.00E+00
Use of non-renewable primary energy as raw materials (PENRM) [MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Total use of non-renewable primary energy resources (PENRT) [MJ]	5.21E+03	1.20E+01	1.72E+02	0.00E+00	2.91E+02	0.00E+00
Input of secondary material (SM) [kg]	1.61E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.00E+00
Use of renewable secondary fuels (RSF) [MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of non-renewable secondary fuels (NRSF) [MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of net fresh water (FW) [m3]	1.82E+00	4.47E-04	6.40E-03	0.00E+00	7.00E-02	0.00E+00

Life cycle impact assessment results of the particleboard CETRIS Eco – basic.

Indicators	A1-A3	C1	C2	C3	C4	D
3. Output flows and waste categories [unit]						
Hazardous waste disposed (HWD) [kg]	1.61E-06	4.82E-10	6.89E-09	0.00E+00	6.40E-08	0.00E+00
Non-hazardous waste disposed (NHWD) [kg]	1.04E+01	1.68E-03	2.40E-02	0.00E+00	1.45E+03	0.00E+00
Radioactive waste disposed (RWD) [kg]	4.11E-01	2.27E-05	3.24E-04	0.00E+00	3.04E-03	0.00E+00
Components for re-use [kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Material for recycling [kg]	3.77E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Materials for energy recovery [kg]	6.53E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy, electricity [MJ]	9.56E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy, thermal [MJ]	1.88E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4. Optional indicators [unit]						
Particulate matter [Disease incidences]	1.99E-05	5.62E-08	1.62E-07	0.00E+00	1.95E-06	0.00E+00
Ionising radiation, human health [kBq U235 eq.]	3.39E+01	3.26E-03	4.66E-02	0.00E+00	3.31E-01	0.00E+00
Ecotoxicity, freshwater [CTUe]	2.17E+03	1.56E+01	2.23E+02	0.00E+00	2.25E+02	0.00E+00
Human toxicity, cancer [CTUh]	1.33E-07	2.11E-10	3.01E-09	0.00E+00	3.87E-09	0.00E+00
Human toxicity, non-cancer [CTUh]	4.62E-06	1.18E-08	1.68E-07	0.00E+00	1.45E-07	0.00E+00
Land Use [Pt]	1.11E+04	5.31E+00	7.60E+01	0.00E+00	7.45E+01	0.00E+00

Life cycle impact assessment results of the particleboard CETRIS Eco – serviced.

Indicators	A1-A3	C1	C2	C3	C4	D
1. Environmental impact indicators [unit]						
GWP-GHG [kg CO_2 eq.]	1.00E+03	9.64E-01	1.36E+01	0.00E+00	2.23E+01	0.00E+00
Climate Change - total [kg CO_2 eq.]	4.15E+02	9.63E-01	1.36E+01	0.00E+00	6.09E+02	0.00E+00
Climate Change, fossil [kg CO_2 eq.]	9.99E+02	9.52E-01	1.34E+01	0.00E+00	2.22E+01	0.00E+00
Climate Change, biogenic [kg CO_2 eq.]	-5.85E+02	8.73E-04	1.19E-03	0.00E+00	5.87E+02	0.00E+00
Climate Change, land use and land use change [kg CO_2 eq.]	8.61E-01	9.65E-03	1.38E-01	0.00E+00	9.08E-02	0.00E+00
Ozone depletion [kg CFC-11 eq.]	9.07E-07	1.56E-13	2.23E-12	0.00E+00	6.23E-11	0.00E+00
Acidification [Mole of H^+ eq.]	1.34E+00	4.81E-03	1.61E-02	0.00E+00	1.57E-01	0.00E+00
Eutrophication, freshwater [kg P eq.]	2.06E-02	2.53E-06	3.61E-05	0.00E+00	3.30E-05	0.00E+00
Eutrophication, marine [kg N eq.]	3.39E-01	2.31E-03	5.98E-03	0.00E+00	4.10E-02	0.00E+00
Eutrophication, terrestrial [Mole of N eq.]	3.76E+00	2.50E-02	6.28E-02	0.00E+00	4.47E-01	0.00E+00
Photochemical ozone formation, human health [kg NMVOC eq.]	1.08E+00	6.24E-03	1.42E-02	0.00E+00	1.23E-01	0.00E+00
Resource use, mineral and metals [kg Sb eq.]	7.63E-04	6.23E-08	8.92E-07	0.00E+00	1.37E-06	0.00E+00
Resource use, fossils [MJ]	5.34E+03	1.20E+01	1.72E+02	0.00E+00	2.91E+02	0.00E+00
Water use [m^3 world equiv.]	4.54E+01	4.29E-03	6.13E-02	0.00E+00	2.39E+00	0.00E+00
2. Resource use indicators [unit]						
Use of renewable primary energy (PERE) [MJ]	1.75E+03	9.05E-01	1.30E+01	0.00E+00	5.62E+01	0.00E+00
Use of renewable primary energy as raw materials (PERM) [MJ]	3.46E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Total use of renewable primary energy resources (PERT) [MJ]	5.22E+03	9.05E-01	1.30E+01	0.00E+00	5.62E+01	0.00E+00
Use of non-renewable primary energy (PENRE) [MJ]	5.34E+03	1.20E+01	1.72E+02	0.00E+00	2.91E+02	0.00E+00
Use of non-renewable primary energy as raw materials (PENRM) [MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Total use of non-renewable primary energy resources (PENRT) [MJ]	5.34E+03	1.20E+01	1.72E+02	0.00E+00	2.91E+02	0.00E+00
Input of secondary material (SM) [kg]	2.16E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.00E+00
Use of renewable secondary fuels (RSF) [MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of non-renewable secondary fuels (NRSF) [MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of net fresh water (FW) [m3]	1.84E+00	4.47E-04	6.40E-03	0.00E+00	7.00E-02	0.00E+00

Life cycle impact assessment results of the particleboard CETRIS Eco – serviced.

Indicators	A1-A3	C1	C2	C3	C4	D
3. Output flows and waste categories [unit]						
Hazardous waste disposed (HWD) [kg]	1.63E-06	4.82E-10	6.89E-09	0.00E+00	6.40E-08	0.00E+00
Non-hazardous waste disposed (NHWD) [kg]	3.31E+02	1.68E-03	2.40E-02	0.00E+00	1.45E+03	0.00E+00
Radioactive waste disposed (RWD) [kg]	4.15E-01	2.27E-05	3.24E-04	0.00E+00	3.04E-03	0.00E+00
Components for re-use [kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Material for recycling [kg]	3.77E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Materials for energy recovery [kg]	6.53E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy, electricity [MJ]	9.56E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy, thermal [MJ]	1.88E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4. Optional indicators [unit]						
Particulate matter [Disease incidences]	2.04E-05	5.62E-08	1.62E-07	0.00E+00	1.95E-06	0.00E+00
Ionising radiation, human health [kBq U235 eq.]	3.43E+01	3.26E-03	4.66E-02	0.00E+00	3.31E-01	0.00E+00
Ecotoxicity, freshwater [CTUe]	2.28E+03	1.56E+01	2.23E+02	0.00E+00	2.25E+02	0.00E+00
Human toxicity, cancer [CTUh]	1.35E-07	2.11E-10	3.01E-09	0.00E+00	3.87E-09	0.00E+00
Human toxicity, non-cancer [CTUh]	4.69E-06	1.18E-08	1.68E-07	0.00E+00	1.45E-07	0.00E+00
Land Use [Pt]	1.11E+04	5.31E+00	7.60E+01	0.00E+00	7.45E+01	0.00E+00

RELEASE OF DANGEROUS SUBSTANCES DURING THE USE STAGE

No health and environmental impacts during use are observed.

ADDITIONAL ENVIRONMENTAL INFORMATION

In CIDEM Hranice, a.s. – CETRIS division continuous attention is paid to the quality of our products. Already back in 1996 we obtained the EU ISO 9002 quality certificate awarded by the international accredited certification body, Lloyd's Register Quality Assurance. After a new standard was published, this system was recertified in 2003 according to the new ISO 9001 standard. The production of CETRIS® cement-bonded particleboard is further supervised by authorized and notified entities. The company exports the products to all of Europe. The cement-bonded particleboards are certified according to European harmonized standards.

Company has established and applied a combined management system for development, production, sales and services of its products.

Obtained certificates EN ISO 9001, and the commitment of the whole company's staff to quality give the customers a guarantee of a quality standard of products.

Positive attitude to the environment of CIDEM Hranice, a.s. is also declared by the certificate of PEFC obtained according to TD CFCS 2002:2013, ensuring that all wood matter used in CIDEM Hranice originated from verified resources.

For recommended use of cement-bonded particleboards follow http://www.cidem.cz. After reaching the end-of-life, it is possible to treat waste particleboards as common non-hazardous waste.

REFERENCES

ISO 14020:2000 Environmental labels and declarations — General principles, 2000-09

ISO 14025: EN ISO 14025:2006-11: Environmental labels and declarations - Type III environmental declarations — Principles and procedures

ISO 14040:2006 Environmental management — Life cycle assessment — Principles and framework, 2006-07

ISO 14044:2006 Environmental management — Life cycle assessment — Requirements and guidelines, 2006-07

EN 15804:2012 +A2:2019/AC:2021 European Committee for Standardization: Sustainability of construction works – Environmental product declarations – Core rules for the product category of construction products, 2021.

Sphera: software LCA for Expert. 2024, Sphera solutions, www.sphera.com

Ecoinvent, www.ecoinvent.org

ZERTIFIKAT

Dieses Multisitezertifikat bescheinigt, dass die

Bausal GmbH

Rollenhagen 7a · 17237 Blankensee · Deutschland

Zertifikatscode				
GFA-PEFC-COC-500539				
Ausstellungsdatum	**18.03.2022**	·	Ablaufdatum	**17.03.2027**
Ausstell-Nr.	1	·	Version	1

mit den Standorten gemäß Anlage (insgesamt 2 Standorte) von der GFA Certification GmbH anhand des Chain of Custody Standard des 2002:2020 Produktkettennachweis für Holzprodukte PEFC ST 2001-2020 PEFC Warenzeichen Anforderungen begutachtet wurde.

Das Unternehmen hat diese Anforderungen nach dem System der Physischen Trennung für die folgenden Produkte und/oder Dienstleistungen erbracht:

Handel von :

Code	Produkt Kategorie		
080000	**080400**	**Zementgebundene Spanplatte**	

PEFC
PEFC/04-04-0099
Förderung nachhaltiger Waldwirtschaft
www.pefc.de

DAkkS
Deutsche Akkreditierungsstelle
D-ZE-18979-01-00

Jörn Ackermann, Geschäftsführer

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