

Environmental Product Declaration



In accordance with ISO 14025:2006 and EN 15804:2012+A2:2019/AC:2021 for:



MDFLAM (Melamine-Faced MDF)

EPD of multiple products, based on a representative product
from

Çamsan Entegre Ağaç Sanayi ve Ticaret A.Ş.



Programme:	The International EPD System, www.environdec.com
Programme operator:	EPD International AB
Licensee:	EPD Türkiye
Type of EPD:	EPD of multiple products from a company
EPD registration number:	EPD-IES-0026944:001
Version date:	2026-02-05
Validity date:	2031-02-04

An EPD may be updated or depublished if conditions change. To find the latest version of the EPD and to confirm its validity, see www.environdec.com



GENERAL INFORMATION

Programme:	The International EPD® System	EPD Türkiye
Address:	EPD International AB Box 210 60 SE-100 31 Stockholm Sweden	Nef 09 B Blok No:7/15 34415 Kağıthane / İstanbul
Website:	www.environdec.com	epdturkey.org
E-mail:	info@environdec.com	info@epdturkey.org

Accountabilities for PCR, LCA and independent, third-party verification

Product Category Rules (PCR):

CEN standard EN 15804 serves as the Core Product Category Rules (PCR)

Product Category Rules (PCR): Construction products, 2019:14, version 2.0.1. Date: 2025-06-05, UN CPC code: 3142 Other plywood, veneered panels and similar laminated wood, except of bamboo

PCR review was conducted by: Rob Rouwette (chair), Noa Meron (co-chair). The review panel may be contacted via the Secretariat: www.environdec.com/support

c-PCR

c-PCR-006 (to PCR 2019:14) Wood and wood-based products for use in construction (EN 16485:2014) Version: 1.0.0 2019-12-20

Life Cycle Assessment (LCA)

LCA accountability: Ceren Naz Güleçyüz, *Greenlife Consultancy*
Kıymet Eda Sakınmaz, *Greenlife Consultancy*

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: Callum Hill, JCH Industrial Ecology Ltd

Approved by: International EPD System

Procedure for follow-up of data during EPD validity involves third party verifier:

Yes No

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 ISO 14025.

INFORMATION ABOUT EPD OWNER

Owner of the EPD: Çamsan Entegre Ağaç Sanayi ve Ticaret A.Ş.

Address: Sakarya 2. Organized Industrial Zone Hendek/SAKARYA

Contact: vedat.sarikaya@camsan.com.tr

Description of the organisation: Çamsan Entegre was established in 1978 as Turkey's first manufacturer of laminate flooring, Medium Density Fibreboard (MDF), and MDFLAM.

Carrying the pride of being the company that first introduced this technology to our country, Çamsan Entegre Ağaç Sanayi ve Ticaret A.Ş. continues to maintain its leadership in the sector in terms of both quality and product range. Embracing the full responsibility of being the first and pioneering company in its industry, Çamsan Entegre Ağaç Sanayi ve Ticaret A.Ş. has become the leading brand that comes to mind when it comes to MDF and laminate flooring, thanks to its uncompromising commitment to quality.

Ranked among Turkey's top 500 companies for many years in terms of financial scale, our company has strengthened its position as the domestic market and industry leader while also expanding its exports and influence in international markets.

Currently exporting to more than 30 countries, our company continues to increase its market share abroad through the consistent quality of its products.

In addition to high-quality raw MDF boards available in various specifications and dimensions, Çamsan Entegre operates as an integrated facility with production units for MDFLAM (Melamine-Faced Boards) and laminate flooring. In 2020, we commissioned our PANEL production line and continue to produce panels under the brand name Çamsan PANELIA.

In 2016, we launched our new investment worth 85 million euros, including MDF, coating press, and laminate flooring production facilities. Our factory, equipped with high-capacity MDF production lines, is established on a total area of 300,000 m², of which 90,000 m² is covered.

PRODUCT INFORMATION

Product name: MDFLAM

Product identification: MDFLAM (Melamine-Faced MDF)



UN CPC code: 3142

Product description: MDFLAM (Melamine-Faced MDF) is a wood-based panel product obtained by applying a lamination process to raw MDF boards. Through this process, decorative papers impregnated with melamine resin are bonded to one or both surfaces of the MDF under heat and pressure, providing the board with specific patterns, colours, and surface appearances.

MDFLAM retains all the mechanical and physical characteristics of MDF, such as strength, homogeneity, and ease of machining, while offering enhanced aesthetic and surface protection properties due to the melamine layer. The primary difference between MDF and MDFLAM lies in this melamine coating, which forms a durable, decorative, and easy-to-clean surface.

The melamine layer is a resin-impregnated decorative film that can be produced in various finishes such as glossy, semi-gloss, or matte. It may also feature solid colours, mixed tones, or wood-grain patterns—the latter being highly preferred in recent years for furniture and interior applications.

MDFLAM panels are easy to process and can be cut or machined to desired dimensions without loss of surface quality. Their combination of mechanical stability, aesthetic flexibility, and surface resistance makes them a versatile material widely used in the furniture and interior design industries.

Name and location of production site(s): Sakarya Second Organized Industrial Zone Hendek/SAKARYA

Technical Specifications:

Technical Data	Unit	5-30 mm MDFLAM Value		Test Standard
Thickness	mm	$t_{\text{average}} \leq 0.20$		TS EN 14323
		$t_{\text{max}} - t_{\text{min}} \leq 0.30$		
Surface Layer Width and Length	mm	± 4		
Deviation from Flatness	mm/m	For mm < 15; -	For 15 ≤ mm; ≤ 2	
Edge Damage Commercial dimensions Pre-cut panels	mm/m	≤ 10 ≤ 3		
Surface Defects (Decorative Side)	mm ² /m ²	Spot defects ≤ 2		
		Linear defects ≤ 20		
Edge Swelling	mm/m	≥ 12		
Scratch Resistance	%	≥ 1.5		
Resistance to Staining	N	≥ 3		
Resistance to Cracking	%	≥ 3		
Abrasion Resistance (Initial Wear Point)	Grade	≥ 350		
Formaldehyde Emission	Revolutions	E1 ≤ 8		
		E2: 8 < value ≤ 30		
Formaldehyde Emission (Gas Analysis Method)	mg/m ² .h	E0 ≤ 1.75 E1: 1.75 < value ≤ 3.5 E2: 3.5 < value ≤ 8		TS 4894 EN 120
Impact Resistance (Large Diameter Ball)	N, mm	No specification		TS EN 12460-3
Colour and Surface Texture Matching	Grade	≥ 4		TS EN 438-2
Resistance to Water Vapour	Grade	≥ 4		TS EN 14323

CONTENT DECLARATION

- The mass (weight) of one unit of a product, as purchased or per declared unit: 792 kg/m³
- Information on the environmental and hazardous/toxic properties of a substances contained in the product: Products meet the REACH requirement (reporting limit: 0.1% raw material), by default since no SVHC (substance of very high concern) exceeds 0.1%.

Product content	Mass, kg	Post-consumer recycled material, mass-% of product	Biogenic material, mass-% of product	Biogenic material, kg C/product or declared unit
Wood	713.87	0	100	352.65
Glue	71.39	0	0	0
Mould-release agent	0.086	0	0	0
Paraffin	1.904	0	0	0
Paper	4.759	0	0	0
TOTAL	792	0	90.1	352.65

Packaging materials	Mass, kg	Mass-% (versus the product)	Biogenic material, kg C/product or declared unit
Strip	0.0511	0.007	0
Cardboard	0.057	0.007	0.0228
TOTAL	0.1081	0.014	0.0228

1 kg biogenic carbon in the product/packaging is equivalent to the uptake of 44/12 kg of CO₂.

Biogenic carbon content is calculated according to EN 16449.

LCA INFORMATION

Declared unit	1 m ³ of MDFLAM
Reference service life	NA
Time representativeness	Data is representative for 2024 production year. Primary production data for the year 2024 was used in the LCA.
Geographical Scope	Türkiye and Global
Database(s) and LCA software used	Ecoinvent 3.10 database and SimaPro software

Thickness (mm)	5	6	7	8-11	12-22	23-30
Conversion factor to mass (kg/m³)	790	780	730	710	700	690

Description of System Boundaries: Cradle to gate (A1-A3) with modules A4-A5, modules C1-C4, and module D.

Raw Material Supply (A1): Çamsan's manufacturing activities begin with wood logs as the primary raw material. The company procures these logs from appropriate forest enterprises across various regions of Türkiye. This stage covers all operations carried out in the forest, including the harvesting, initial processing, and pre-treatment of the logs prior to their transportation to the production site.

Transportation (A2): Transportation stage covers the transportation of all raw materials and packaging materials to Çamsan's production facility. Transport is primarily conducted by road using trucks. The transport data for this module is modelled based on the weighted average transport distances of all raw materials and packaging materials procured in 2024.

Manufacturing (A3): At the manufacturing stage, the impact of fuel consumption and electricity usage throughout the production process, and water consumption are considered. Also, packaging and wastewater treatment were included in manufacturing.

During the manufacturing of MDFLAM, electricity is used as energy sources.

Details of electricity data used in LCA model

Country: Türkiye

Source Type: 100% Grid

Energy Sources: Coal: 62.7%

Oil: 0.7%

Natural gas: 36.6%

Electricity Data: Residual mix is calculated from "Electricity, medium voltage {TR}| market for electricity, medium voltage | Cut-off, S"

Electricity Emission Factor (GWP-GHG result): 0.573 kg CO₂eq/kWh

Transportation (A4): This stage covers the transportation of finished panels from Çamsan's production facility to the construction site or customer location. Transport is carried out primarily by road and sea, using trucks and containerships. The transport model is based on the weighted average transport distances of all product deliveries completed in 2024.

Construction (A5): The installation of MDF-based products is typically performed manually or with small hand-held tools. Consequently, the electricity and fuel consumption associated with installation activities is very low and considered negligible compared to the upstream production impacts (A1–A3). Therefore, no significant additional energy use is included in this module. Environmental impacts associated with packaging materials that leave the system during the construction stage are also accounted for within this module.

De-Construction Demolition (C1): During the deconstruction or demolition stage, electricity consumption is required for the dismantling and removal of the material. An energy use of 0.323 MJ per kilogram of material is assumed for this module, based on Gervasio & Dimova (2018).

Waste Transport (C2): A transport distance of 100 km is assumed for the movement of the product as waste after the end of its use phase.

Waste Processing (C3): No additional waste processing is required in this module, as the waste is directly sent to landfill or incineration facilities. Therefore, no further treatment prior to final disposal is considered.

Disposal (C4): In the end-of-life scenario, 75% of the MDFLAM waste is disposed of in landfill, while the remaining 25% is sent to incineration.

Resource Recovery Stage (D): For the assessment of benefits and burdens beyond the system boundary, a calorific value of 18.6 MJ per kilogram of MDFLAM was assumed to estimate the amount of electricity that could be avoided through heat recovery (Günther et al., 2012). In this stage, the electricity generation efficiency of the incineration plant is assumed to be 20 % (Intergovernmental Panel on Climate Change [IPCC], 2019). Thus, the heat generated from MDFLAM incineration is considered to be converted into electricity, which in turn substitutes an equivalent amount of electricity that would otherwise be drawn from the grid.

Cut-off Rule: All the related data have been collected through detailed data sheets from the manufacturer. Data that is sent by the manufacturer has been analysed and modelled. All data related to inputs and outputs for processes has been included. In situations where there were data gaps, generic data (Ecoinvent 3.10) has been used. The cut-off criteria have been set to allow the omission of individual input flows that account for less than 1% of the total, provided that the cumulative contribution does not exceed 5%.

The data that is omitted from the LCA modelling is as follows.

- Employees' commuting to the workplace
- Infrastructure and machinery (Machinery refers to capital goods)
- Impacts due to the maintenance of the machinery
- Waste produced during the production.
- Ancillary material use (There is not an ancillary material use)

Allocations: In the production site of Çamsan, MDFLAM is produced in its own production line. Therefore, energy consumption, water use generated waste and packaging data have been obtained specific to the product from the EPD owner. Hence, the data was gathered for each product line separately and no allocation is required.

Characterization Factor: EN 15804 method based on EF 3.1 normalization and weight values, published in July 2022.

Process flow diagram: On this production line, sanded boards are used as the raw material. The sanded boards designated for lamination according to the production schedule are placed on fixed elevators by forklift operators. The paper lay-up operator performs dimensional and surface inspections and records the inspection results as well as the relevant information from the batch identification cards on the corresponding forms. If no non-conformities are detected, the operator ensures that the boards are transferred to the raw board elevators for lamination. In the case of any detected non-conformities, a non-conformity form is prepared, the boards are removed from the line, and the unit supervisor is informed.

The paper lay-up operators ensure that the required papers are brought from the paper storage room to the production line according to the decor, grade, and pattern specified in the production schedule. The necessary information from the batch identification cards is recorded on the relevant forms. The press operator, together with other operators, installs the steel plate required for the press according to the pattern information specified in the production schedule. Production parameters are entered into the press based on the values listed in the press operation instruction sheet. When the press conditions are met, production is started.

Under the supervision of the paper lay-up operator, the sanded boards are automatically transferred from the elevators to the line using a vacuum-assisted raw board conveyor. The boards pass through a brush station to remove surface dust. The boards are aligned on the squaring station, and for double-sided boards, paper (balance or decor) is applied, while for single-sided boards, the paper is applied to the adhesive side using a vacuum carrier.

For the first paper elevator, the paper is placed at the bottom of the board and manually cross-aligned. The first paper carriage pulls the paper onto the conveyor to meet the raw board. After the raw board is placed, it passes through the first static station, where static electricity prevents sliding, and reaches the decor paper lay-up station. For the second paper elevator, decor paper is loaded and manually cross-aligned. The second paper carriage covers the board with the paper, and it passes through the second static station to reach the third paper lay-up station. For laminate flooring production, an overlay paper is applied on top of the decor paper, whereas for laminate (lam) production, this station is skipped.

After the paper lay-up process, the inter-board spacing is adjusted on the segmented conveyor, and the boards are moved to the elevator for loading onto the press board carriage. The boards are transferred by elevator to the press loading carriage and enter the press. Pressed boards are removed from the press using the press unloading carriage with vacuum assistance.

The pressed boards enter the edge cleaning unit to remove any paper overhang. After edge cleaning, the laminate flooring boards reach the quality selection station for grading and inspection. Boards are classified as first quality, second quality, or defective according to the quality selection instructions. Boards that pass the quality selection are transferred to the cooling star. After cooling, they pass through a brush station for surface cleaning and are stacked on elevators according to their quality grade. The required batch identification cards are prepared and attached to the stacks. Finally, the boards are transported to the storage area using a forklift.

Modules declared, geographical scope, share of primary data (in GWP-GHG results) and data variation (in GWP-GHG results):

X: Declared Module, MND: Module Not Declared

	Product stage			Distribution/ installation stage		Use stage							End-of-life stage				Beyond product life cycle
	Raw material supply	Transport	Manufacturing	Transport	Construction installation	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction demolition	Transport	Waste processing	Disposal	
Module	A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Modules declared	X	X	X	X	X	MND	MND	MND	MND	MND	MND	MND	X	X	X	X	X
Geography	GLO	GLO	TR	GLO	GLO	-	-	-	-	-	-	-	GLO	GLO	GLO	GLO	GLO
Share of primary data	33.8%			-	-	-	-	-	-	-	-	-	-	-	-	-	-
Variation – products	<10%			-	-	-	-	-	-	-	-	-	-	-	-	-	-
Variation – sites	0%			-	-	-	-	-	-	-	-	-	-	-	-	-	-

ENVIRONMENTAL PERFORMANCE

Impact category indicators

Results per functional or declared unit									
Indicator	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
GWP-total	kg CO ₂ eq.	-7.73E+02	1.05E+02	4.05E+01	6.43E+01	1.52E+01	0.00E+00	1.35E+03	-5.63E+02
GWP-fossil	kg CO ₂ eq.	5.14E+02	1.05E+02	4.00E+01	6.43E+01	1.52E+01	0.00E+00	6.23E+01	-5.55E+02
GWP-biogenic	kg CO ₂ eq.	-1.29E+03	0.00E+00	8.36E-02	0.00E+00	0.00E+00	0.00E+00	1.29E+03	-7.31E+00
GWP-luluc	kg CO ₂ eq.	2.85E+00	4.98E-02	4.30E-01	4.18E-03	6.17E-03	0.00E+00	1.04E-02	-3.61E-02
ODP	kg CFC 11 eq.	1.61E-05	1.60E-06	2.34E-07	3.41E-07	2.25E-07	0.00E+00	7.42E-08	-2.94E-06
AP	mol H ⁺ eq.	2.46E+00	1.73E+00	2.62E-01	4.21E-01	3.48E-02	0.00E+00	4.48E-02	-3.63E+00
EP-freshwater	kg P eq.	2.47E-01	5.84E-03	4.05E-02	6.56E-02	1.20E-03	0.00E+00	8.34E-03	-5.67E-01
EP-marine	kg N eq.	4.91E-01	4.31E-01	4.62E-02	7.45E-02	8.07E-03	0.00E+00	7.99E-02	-6.44E-01
EP-terrestrial	mol N eq.	5.46E+00	4.78E+00	4.22E-01	6.80E-01	8.72E-02	0.00E+00	1.96E-01	-5.88E+00
POCP	kg NMVOC eq.	2.35E+00	1.39E+00	1.25E-01	2.01E-01	4.87E-02	0.00E+00	5.95E-02	-1.74E+00
ADP-minerals&metals*	kg Sb eq.	3.72E-03	1.96E-04	4.35E-05	1.48E-05	4.96E-05	0.00E+00	1.06E-05	-1.28E-04
ADP-fossil*	MJ	9.83E+03	1.43E+03	4.41E+02	7.18E+02	2.13E+02	0.00E+00	5.31E+01	-6.20E+03
WDP*	m ³	4.30E+02	5.44E+00	2.05E+01	4.16E+00	9.72E-01	0.00E+00	-2.01E+00	-3.60E+01
Acronyms	GWP-fossil = Global Warming Potential fossil fuels; GWP-biogenic = Global Warming Potential biogenic; GWP-luluc = Global Warming Potential land use and land use change; ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption								

* *Disclaimer: The results of this environmental impact indicator shall be used with care as the uncertainties of these results are high or as there is limited experience with the indicator.*

Additional mandatory and voluntary impact category indicators

Indicator	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
GWP-GHG ¹	kg CO ₂ eq.	5.17E+02	1.05E+02	4.04E+01	6.43E+01	1.52E+01	0.00E+00	6.23E+01	-5.55E+02

Resource use indicators

Results per functional or declared unit									
Indicator	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
PERE	MJ	1.86E+04	1.44E+01	1.85E+02	1.31E+01	2.73E+00	0.00E+00	7.92E+03	-1.13E+02
PERM	MJ	1.06E+04	0.00E+00	-2.34E+00	0.00E+00	0.00E+00	0.00E+00	-1.06E+04	0.00E+00
PERT	MJ	2.92E+04	1.44E+01	1.83E+02	1.31E+01	2.73E+00	0.00E+00	-2.68E+03	-1.13E+02
PENRE	MJ	9.83E+03	1.43E+03	4.41E+02	7.18E+02	2.13E+02	0.00E+00	5.31E+01	-6.20E+03
PENRM	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PENRT	MJ	9.83E+03	1.43E+03	4.41E+02	7.18E+02	2.13E+02	0.00E+00	5.31E+01	-6.20E+03
SM	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
NRSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
FW	m ³	4.19E+02	5.48E+00	2.07E+01	4.12E+00	9.76E-01	0.00E+00	-2.03E+00	-3.56E+01
Acronyms	PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials; PENRM = Use of non-renewable primary energy resources used as raw materials; PENRT = Total use of non-renewable primary energy re-sources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water								

¹This indicator accounts for all greenhouse gases except biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. As such, the indicator is identical to GWP-total except that the CF for biogenic CO₂ is set to zero.

Waste indicators

PARAMETER	UNIT	A1-A3	A4	A5	C1	C2	C3	C4	D
Hazardous waste disposed	kg	4.24E-02	8.57E-03	7.44E-04	1.25E-03	1.47E-03	0.00E+00	4.61E-04	-1.08E-02
Non-hazardous waste disposed	kg	7.00E+01	6.60E+01	1.34E+00	1.28E+00	1.02E+01	0.00E+00	4.48E+01	-1.11E+01
Radioactive waste disposed	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Output flow indicators (optional)

PARAMETER	UNIT	A1-A3	A4	A5	C1	C2	C3	C4	D
Components for reuse	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Material for recycling	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Materials for energy recovery	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.94E+02	0.00E+00
Exported energy, electricity	MJ per energy carrier	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.21E+03	0.00E+00
Exported energy, thermal	MJ per energy carrier	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Additional mandatory and voluntary impact category indicators (100% Landfill End-of-Life Scenario)

Results per functional or declared unit								
Indicator	Unit	A1-A3	A4	A5	C1	C2	C3	C4
GWP-total	kg CO ₂ eq.	-7.73E+02	1.05E+02	4.05E+01	6.43E+01	1.52E+01	0.00E+00	1.29E+03
GWP-fossil	kg CO ₂ eq.	5.14E+02	1.05E+02	4.00E+01	6.43E+01	1.52E+01	0.00E+00	4.61E+00
GWP-biogenic	kg CO ₂ eq.	-1.29E+03	0.00E+00	8.36E-02	0.00E+00	0.00E+00	0.00E+00	1.29E+03
GWP-luluc	kg CO ₂ eq.	2.85E+00	4.98E-02	4.30E-01	4.18E-03	6.17E-03	0.00E+00	1.95E-03
ODP	kg CFC 11 eq.	1.61E-05	1.60E-06	2.34E-07	3.41E-07	2.25E-07	0.00E+00	6.03E-08
AP	mol H ⁺ eq.	2.46E+00	1.73E+00	2.62E-01	4.21E-01	3.48E-02	0.00E+00	3.78E-02
EP-freshwater	kg P eq.	2.47E-01	5.84E-03	4.05E-02	6.56E-02	1.20E-03	0.00E+00	5.21E-04
EP-marine	kg N eq.	4.91E-01	4.31E-01	4.62E-02	7.45E-02	8.07E-03	0.00E+00	1.63E-02
EP-terrestrial	mol N eq.	5.46E+00	4.78E+00	4.22E-01	6.80E-01	8.72E-02	0.00E+00	1.78E-01
POCP	kg NMVOC eq.	2.35E+00	1.39E+00	1.25E-01	2.01E-01	4.87E-02	0.00E+00	5.37E-02
ADP-minerals&metals*	kg Sb eq.	3.72E-03	1.96E-04	4.35E-05	1.48E-05	4.96E-05	0.00E+00	2.12E-06
ADP-fossil*	MJ	9.83E+03	1.43E+03	4.41E+02	7.18E+02	2.13E+02	0.00E+00	5.96E+01
WDP*	m ³	4.30E+02	5.44E+00	2.05E+01	4.16E+00	9.72E-01	0.00E+00	2.09E-01
Acronyms	GWP-fossil = Global Warming Potential fossil fuels; GWP-biogenic = Global Warming Potential biogenic; GWP-luluc = Global Warming Potential land use and land use change; ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption							

Additional mandatory and voluntary impact category indicators (100% Incineration End-of-Life Scenario)

Results per functional or declared unit									
Indicator	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
GWP-total	kg CO ₂ eq.	-7.73E+02	1.05E+02	4.05E+01	6.43E+01	1.52E+01	0.00E+00	1.29E+03	-1.79E+03
GWP-fossil	kg CO ₂ eq.	5.14E+02	1.05E+02	4.00E+01	6.43E+01	1.52E+01	0.00E+00	2.96E+00	-1.75E+03
GWP-biogenic	kg CO ₂ eq.	-1.29E+03	0.00E+00	8.36E-02	0.00E+00	0.00E+00	0.00E+00	1.29E+03	-3.01E+01
GWP-luluc	kg CO ₂ eq.	2.85E+00	4.98E-02	4.30E-01	4.18E-03	6.17E-03	0.00E+00	5.57E-04	-1.20E+01
ODP	kg CFC 11 eq.	1.61E-05	1.60E-06	2.34E-07	3.41E-07	2.25E-07	0.00E+00	3.72E-08	-1.45E-05
AP	mol H ⁺ eq.	2.46E+00	1.73E+00	2.62E-01	4.21E-01	3.48E-02	0.00E+00	2.11E-01	-1.05E+01
EP-freshwater	kg P eq.	2.47E-01	5.84E-03	4.05E-02	6.56E-02	1.20E-03	0.00E+00	4.61E-04	-1.73E+00
EP-marine	kg N eq.	4.91E-01	4.31E-01	4.62E-02	7.45E-02	8.07E-03	0.00E+00	1.00E-01	-1.83E+00
EP-terrestrial	mol N eq.	5.46E+00	4.78E+00	4.22E-01	6.80E-01	8.72E-02	0.00E+00	1.17E+00	-1.64E+01
POCP	kg NMVOC eq.	2.35E+00	1.39E+00	1.25E-01	2.01E-01	4.87E-02	0.00E+00	3.09E-01	-5.15E+00
ADP-minerals&metals*	kg Sb eq.	3.72E-03	1.96E-04	4.35E-05	1.48E-05	4.96E-05	0.00E+00	5.60E-06	-1.94E-03
ADP-fossil*	MJ	9.83E+03	1.43E+03	4.41E+02	7.18E+02	2.13E+02	0.00E+00	3.97E+01	-2.02E+04
WDP*	m ³	4.30E+02	5.44E+00	2.05E+01	4.16E+00	9.72E-01	0.00E+00	9.12E+00	-5.98E+02
Acronyms	GWP-fossil = Global Warming Potential fossil fuels; GWP-biogenic = Global Warming Potential biogenic; GWP-luluc = Global Warming Potential land use and land use change; ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption								

ABBREVIATIONS

Abbreviation	Definition
ADP	Abiotic Depletion Potential
AP	Acidification Potential
Çamsan	Çamsan Entegre Ağaç Sanayi ve Ticaret A.Ş.
EN	European Norm (Standard)
EF	Environmental Footprint
EP	Eutrophication Potential
Eq	Equivalent
GPI	General Programme Instructions
GHG	Greenhouse Gases
GWP	Global Warming Potential
ISO	International Organization for Standardization
CEN	European Committee for Standardization
CPC	Central product classification
GRI	Global Reporting Initiative
LCA	Life Cycle Assessment
MDFLAM	Melamine-Faced MDF
ND	Not Declared
ODP	Ozone Layer Depletion
PCR	Product Category Rules
POCP	Photochemical Oxidant Creation Potential
SVHC	Substances of Very High Concern
WDP	Water Deprivation Potential

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- The International EPD® System / The International EPD® System is a programme for type III environmental declarations, maintaining a system to verify and register EPD@s as well as keeping a library of EPD@s and PCRs in accordance with ISO 14025. www.environdec.com

VERSION HISTORY

Original Version of the EPD, 2026-02-05

