

ARCHIFIBE
ARCHITECTURAL FIBER TECHONOLOGIES

EZO BORD



VERIFIED by SCS Global Services
ENVIRONMENTAL PRODUCT DECLARATION
BASED ON LCA

Declaration Owner

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Product

EzoBord PET Acoustical Panels

Functional Unit

The functional unit is 0.093 square meter (one square foot) of acoustic panel product over a 75-year period.

EPD Number and Period of Validity

SCS-EPD-10011
EPD Valid: July 8, 2025 through July 7, 2030

Product Category Rule

UL. PCR Guidance for Building-Related Products and Services Part A: Life Cycle Assessment Calculation Rules and Report Requirements. Version 4.0 March 2022.

UL. PCR Guidance for Building-Related Products and Services Part B: Non-Metal Ceiling and Interior Wall Panel EPD Requirements. Version 2.0. April 2021.

Program Operator

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Declaration owner:	Archifibe, Inc
Address:	6845 Rexwood Rd Unit 7, Mississauga, ON L4V 1S5, Canada
Declaration Number:	SCS-EPD-10011
Declaration Validity Period:	EPD Valid: July 8, 2025 through July 7, 2030
Program Operator:	SCS Global Services
Declaration URL Link:	https://www.scsglobalservices.com/certified-green-products-guide
LCA Practitioner:	Asifur Rahman, SCS Global Services
LCA Software and LCI database:	OpenLCA 2.4.1 software and the Ecoinvent v3.11 database
Product's Intended Application:	Acoustic wall coverings, ceiling systems, panel systems, privacy screens, tackboards and custom architectural and design components.
Product RSL:	30 years (ESL 75 years)
Markets of Applicability:	Global
EPD Type:	Product-Specific
EPD Scope:	Cradle-to-Grave
LCIA Method and Version:	CML-IA Baseline and TRACI 2.1
Independent critical review of the LCA and data, according to ISO 14044 and ISO 14071	☐ internal ☒ external
LCA Reviewer:	Thomas Gloria, Ph.D., Industrial Ecology Consultants
Product Category Rule:	UL. PCR Guidance for Building-Related Products and Services Part B: Non-Metal Ceiling and Interior Wall Panel EPD Requirements. Version 2.0. April 2021.
PCR Review conducted by:	Lindita Bushi, Tom Gloria, Olivia Palmer
Independent verification of the declaration and data, according to ISO 14025 and the PCR	☐ internal ☒ external
EPD Verifier:	Thomas Gloria, Ph.D., Industrial Ecology Consultants
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Scope of Results Reported: *The PCR requirements limit the scope of the LCA metrics such that the results exclude environmental and social performance benchmarks and thresholds, and exclude impacts from the depletion of natural resources, land use ecological impacts, ocean impacts related to greenhouse gas emissions, risks from hazardous wastes and impacts linked to hazardous chemical emissions.*

Accuracy of Results: *Due to PCR constraints, this EPD provides estimations of potential impacts that are inherently limited in terms of accuracy.*

Comparability: *The PCR this EPD was based on was not written to support comparative assertions. EPDs based on different PCRs, or different calculation models, may not be comparable. When attempting to compare EPDs or life cycle impacts of products from different companies, the user should be aware of the uncertainty in the final results, due to and not limited to, the practitioner's assumptions, the source of the data used in the study, and the specifics of the product modeled.*

In accordance with ISO 21930:2017, EPDs are comparable only if they comply with the core PCR, use the same sub-category PCR where applicable, include all relevant information modules and are based on equivalent scenarios with respect to the context of construction works.

1. About Archifibe, Inc.

Archifibe specializes in converting polyester raw materials into acoustical workplace ware that helps enhance focus for workers within working environments. Formerly known as iVekter, founded in Canada in 2004, the company has grown the business worldwide through partnerships with multiple national distribution/fabrication companies dedicated to providing support of the EzoBord/EzoCore brand in the respective markets. Constantly working to be a leader in the acoustics business, Archifibe is fully engaged in constant Research & Development, collaborating with Architects, Designers, Dealers, and Engineers to continually evolve the EzoBord/EzoCore material into limitless products and applications.

2. Product

2.1 Product Description

EzoBord PET acoustic panels are robust, highly versatile, recycled base materials for EzoBord acoustic ceiling products, acoustic lighting products, acoustic wall panels and acoustic room dividers. EzoBord allows for endless possibilities of custom-made design driven acoustical solutions in a wide range of colors and can be manufactured to any design concept and specification. EzoBord is available in 15 colors in 3/8" (9mm) thickness and 1/2" (12mm) thickness.

2.2 Application

EzoBord's PET panels are intended for decorative wall and ceiling acoustical panels, office partitions, acoustic tack boards, visual and acoustical full height privacy barriers and other custom applications for use in commercial interiors.

2.3 Product Specifications

Table 1. *Product specifications for the EzoBord acoustic panels.*

Property	Test Method	EzoBord 9 mm Test Results	EzoBord 12 mm Test Results
Building Code Classification	2015 Intl. Building Code Sec. 803.1.1	Class A	Class A
Flame Spread Index	ASTM E84	0	15
Smoke Developed Index	ASTM E84	60	45
Sound Absorption Coefficient	ASTM C423 (D50 mounting method)	0.33	0.52
Noise Reduction Coefficient	ASTM C423 (D50 mounting method)	0.35	0.50

Table 2. *EzoBord acoustic panel properties.*

Parameter	Value	
Thickness	9 mm (3/8")	12 mm (1/2")
Sheet Dimensions	1,219 mm (48") x 2,439 mm (96)	1,219 mm (48") x 2,743 mm (108")
Weight/Sheet	3.85 kg (8.5 lb)	7.27 kg (16.0 lb)
Density	145 kg/m^3 (9.05 lbs/ft^3)	185 kg/m^3 (11.5 lbs/ft^3)

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2.4 Representative Product

EzoBord 9 and 12 mm panels share the same raw material component breakdown, mass, and the same manufacturing process are followed across facilities, with the main differences being the internal configurations (i.e., thickness, gross density, weight/m^2) and shape changes to the exterior design. Hence, the average product was calculated using production output-weighted average across seven facilities for each of the EzoBord panels as the representative EzoBord 9 and 12 mm panels in this study.

2.5 Flow Diagram

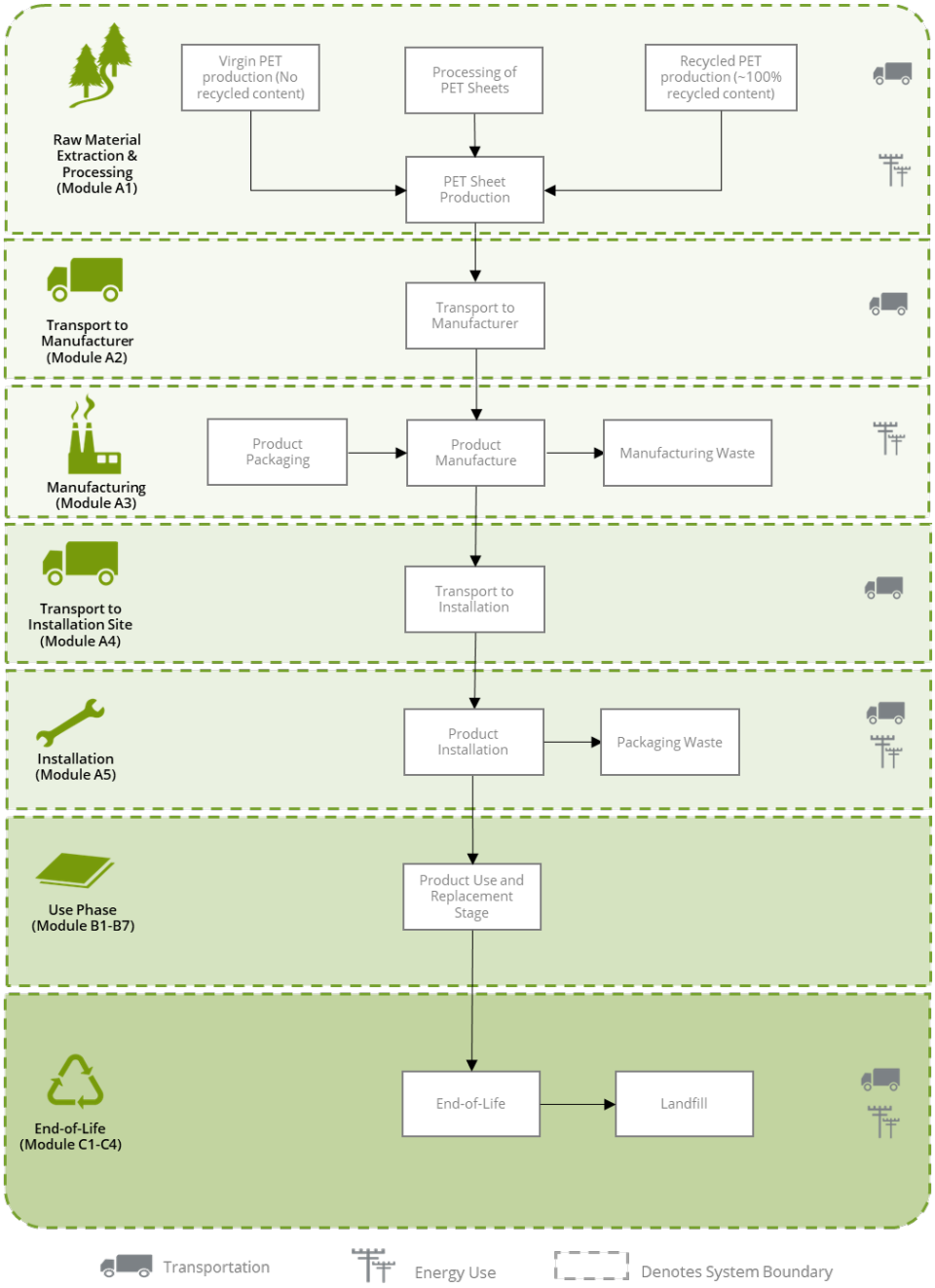

Figure 1. *Flow diagram for the life cycle of the Archifibe EzoBord acoustic panels.*

2.6 Material Composition

Table 3. *Material content for the EzoBord acoustic panels products per functional unit of 0.093 m^2.*

Raw Materials	EzoBord 9 mm			EzoBord 12 mm		
	Mass (kg)	Percentage of Total Mass	Recycled Content	Mass(kg)	% Mass Final Product	Recycled Content
Polyethylene terephthalate (PET) sheets	1.30	100%	50%	2.20	100%	50%

3. LCA: Methodological Framework

3.1 Functional Unit

The functional unit used in the study is defined as 0.093 m^2 (1 ft^2) of installed acoustic panel with a reference service life (RSL) of 30 years. The building estimated service life (ESL) is assumed to be 75-years in order to be consistent with ASHRAE 189.1 (2014, Section 9.5.1).

Table 4. *Functional unit and reference flows for the product systems under study.*

Name	Unit	EzoBord 9 mm	EzoBord 12 mm
Functional unit	0.093 m^2 (1 ft^2) of acoustic panel maintained over the 75 years of ESL of the building.		
Declared unit	m^2	0.093	0.093
Thickness of panel	cm	0.9	0.12
Gross density	kg/m^3	145	185
Weight/declared unit	kg/m^2	1.30	2.20

3.2 System Boundary

The scope of the EPD is cradle-to-grave, including raw material extraction and processing; raw material transportation; product manufacture, including packaging; product distribution; installation; use; and end-of-life.

Table 5. *Archifibe EzoBord acoustic panels system boundaries.*

Product			Construction Process		Use							End-of-life				Benefits and loads beyond the system boundary
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Raw material extraction and processing	Transport to manufacturer	Manufacturing	Transport	Construction - installation	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	Deconstruction demolition	Transport	Waste processing	Disposal	Reuse, recovery and/or recycling potential
X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	MND

X = Included in system boundary | MND = Module not declared

3.3 Allocation

Manufacturing resource use was allocated to the products based on mass. Impacts from transportation were allocated based on the mass of material and distance transported.

3.3 Cut-off criteria

According to the PCR, processes contributing greater than 1% of the total environmental impact indicator for each impact are included in the inventory. No data gaps were allowed which were expected to significantly affect the outcome of the indicator results.

3.4 Data Sources

Primary data were provided by Acrhifibe's manufacturing facilities across the US, Canada, and the UK. The principal source of secondary LCI data is the Ecoinvent 3.11 database.

Table 6. *LCI datasets and associated databases used to model the EzoBord acoustic panels.*

Component	Dataset	Geography	Data Source	Date
Product				
PET Fibers	market for polyethylene terephthalate, granulate, amorphous | polyethylene terephthalate, granulate, amorphous | Cutoff, U	GLO	Ecoinvent 3.11	2024
	market for polyethylene terephthalate, granulate, amorphous, recycled | polyethylene terephthalate, granulate, amorphous, recycled | Cutoff, U	RoW	Ecoinvent 3.11	2024
extrusion of plastic sheets and thermoforming, inline	market for extrusion of plastic sheets and thermoforming, inline | extrusion of plastic sheets and thermoforming, inline | Cutoff, U	GLO	Ecoinvent 3.11	2024
Packaging				
Cardboard (100% recycled)	market for corrugated board box | corrugated board box | Cutoff, U	RoW	Ecoinvent 3.11	2024
Plastic Wrap	market for packaging film, low density polyethylene | packaging film, low density polyethylene | Cutoff, U	GLO	Ecoinvent 3.11	2024
Plastic Strapping and packaging tape	market for polypropylene, granulate | polypropylene, granulate | Cutoff, U	GLO	Ecoinvent 3.11	2024
Bubble Wrap	market for polyethylene, low density, granulate | polyethylene, low density, granulate | Cutoff, U	GLO	Ecoinvent 3.11	2024
	market for polyethylene, low density, pellets, recycled | polyethylene, low density, pellets, recycled | Cutoff, U	RoW	Ecoinvent 3.11	2024
Transport				
Ship	market for transport, freight, sea, container ship | transport, freight, sea, container ship | Cutoff, U	Global	Ecoinvent 3.11	2024
Train	market for transport, freight train | transport, freight train | Cutoff, U	RoW	Ecoinvent 3.11	2024
Truck	market for transport, freight, lorry 16-32 metric ton, EURO4 | transport, freight, lorry 16-32 metric ton, EURO4 | Cutoff, U	RoW	Ecoinvent 3.11	2024
Manufacturing Inputs				
Electricity (Mississauga and Kitchener)	market for electricity, medium voltage | electricity, medium voltage | Cutoff, U	CA-ON	Ecoinvent 3.11	2024
Electricity (Rocky View)	market for electricity, medium voltage | electricity, medium voltage | Cutoff, U	CA-AB	Ecoinvent 3.11	2024
Electricity (Elgin)	market for electricity, medium voltage | electricity, medium voltage | Cutoff, U	US-RFC	Ecoinvent 3.11	2024
Electricity (Canoga Park)	market for electricity, medium voltage | electricity, medium voltage | Cutoff, U	US-WECC	Ecoinvent 3.11	2024
Electricity (Dahlonega)	market for electricity, medium voltage | electricity, medium voltage | Cutoff, U	US-SERC	Ecoinvent 3.11	2024
Electricity (Margate UK)	market for electricity, medium voltage | electricity, medium voltage | Cutoff, U	GB	Ecoinvent 3.11	2024
Natural Gas (Mississauga)	heat production, natural gas, at industrial furnace >100kW | heat, district or industrial, natural gas | Cutoff, U	CA	Ecoinvent 3.11	2024
kraft paper	market for kraft paper | kraft paper | Cutoff, U	RoW	Ecoinvent 3.11	2024
Transfer paper	market for paper, woodfree, coated | paper, woodfree, coated | Cutoff, U	RoW	Ecoinvent 3.11	2024
Waste Outputs				
Waste paperboard	treatment of waste paperboard, sanitary landfill | waste paperboard | Cutoff, U	RoW	Ecoinvent 3.11	2024
Waste PET for Recycling	Elementary Flows/Waste/Unspecified	-	Ecoinvent 3.11	2024
Landfill	market for inert waste, for final disposal | inert waste, for final disposal | Cutoff, U	RoW	Ecoinvent 3.11	2024

3.5 Data Quality

Table 7. *Data Quality Assessment.*

Data Quality Parameter	Data Quality Discussion
Time-Related Coverage: Age of data and the minimum length of time over which data is collected	The manufacturer provided primary data on product manufacturing for seven facilities on annual production for 2023-2024. Representative datasets (secondary data) for upstream and background processes are generally less than 5 years old.
Geographical Coverage: Geographical area from which data for unit processes is collected to satisfy the goal of the study	The data used in the analysis provide the best possible representation available with current data. Actual processes for upstream operations are primarily North American. Surrogate data used in the assessment are representative of North American or European operations. Data representative of European operations are considered sufficiently similar to actual processes. Data representing product disposal are based on US statistics.
Technology Coverage: Specific technology or technology mix	For the most part, data are representative of the actual technologies used for processing, transportation, and manufacturing operations. Representative fabrication datasets, specific to the type of material, are used to represent the actual processes, as appropriate.
Precision: Measure of the variability of the data values for each data expressed	Precision of results are not quantified due to a lack of data. Data collected for operations were typically averaged for one more year and over multiple operations, which is expected to reduce the variability of results.
Completeness: Percentage of flow that is measured or estimated	The LCA model included all known mass and energy flows for production of the products. In some instances, surrogate data used to represent upstream and downstream operations may be missing some data which is propagated in the model. No known processes or activities contributing to more than 1% of the total environmental impact for each indicator are excluded.
Representativeness: Qualitative assessment of the degree to which the data set reflects the true population of interest	Data used in the assessment represents typical or average processes as currently reported from multiple data sources and are therefore generally representative of the range of actual processes and technologies for production of these materials. Considerable deviation may exist among actual processes on a site-specific basis; however, such a determination would require detailed data collection throughout the supply chain back to resource extraction.
Consistency: Qualitative assessment of whether the study methodology is applied uniformly to the various components of the analysis	The consistency of the assessment is considered to be high. Data sources of similar quality and age are used; with a bias towards Ecoinvent v3.11 data where available. Different portions of the product life cycle are equally considered.
Reproducibility: Qualitative assessment of the extent to which information about the methodology and data values would allow an independent practitioner to reproduce the results reported in the study	Based on the description of the data and assumptions used, this assessment would be reproducible by other practitioners. All assumptions, models, and data sources are documented.
Sources of the Data: Description of all primary and secondary data sources	Data representing energy use at all the manufacturing facilities represent an annual average and are considered of high quality due to the length of time over which these data are collected, as compared to a snapshot that may not accurately reflect fluctuations in production. The Ecoinvent database is used for secondary LCI datasets.
Uncertainty of the Information: Uncertainty related to data, models, and assumptions	Uncertainty related to materials in the panel products and packaging is low. Actual supplier data for upstream operations was not available for all suppliers and the study relied upon the use of existing representative datasets. These datasets contained relatively recent data (<10 years) but lacked geographical representativeness. Uncertainty related to the impact assessment methods used in the study are high. The impact assessment method required by the PCR includes impact potentials, which lack characterization of providing and receiving environments or tipping points.

3.6 Period under review

The period of review is based on a 12-month period from May 2023 through April 2024.

3.7 Comparability

The PCR this EPD was based on was not written to support comparative assertions. EPDs based on different PCRs, or different calculation models, may not be comparable. When attempting to compare EPDs or life cycle impacts of products from different companies, the user should be aware of the uncertainty in the final results, due to and not limited to, the practitioner's assumptions, the source of the data used in the study, and the specifics of the product modeled.

3.8 Estimates and Assumptions

- Disposal of product and packaging is modeled based on regional statistics regarding municipal solid waste generation and disposal in the United States, Canada, and the EU as specified in the PCR. The data include end-of-life recycling rates of packaging and product materials.
- Installation of the products is assumed to be manual, requiring no additional materials or energy use.
- Transport of the packaging waste at installation is assumed to be 35 km by truck as required by the Part B PCR.
- Transport of the product at end-of-life to waste processing and disposal is assumed to be 35 km by truck as required by the Part B PCR.
- The Reference Service Life (RSL) of the products was modeled as 30 years, as required by the Part B PCR.
- The Estimated Service Life (ESL) of the building/construction works was assumed to be 75 years, as required by the Part B PCR, to be consistent with ASHRAE 189.1 (2020, Section 9.5.1).
- The maintenance (Module B2) of the acoustic panels is deemed negligible throughout their use phase.
- In accordance with the Part A PCR and Part B PCR, the acoustic panels are assumed to require replacement 1.5 times over the 75-year ESL.
- The use phase modules B3 (Repair), B5 (Refurbishment), B6 (Operational Energy Use) and B7 (Operational Water Use) are assumed to have no impacts, as there is no resource or energy use associated with these modules.
- For the product end-of-life, disposal of product is assumed to follow the disposal scenario indicated in the Part A PCR.

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4. LCA: Technical Information and Scenarios

4.1 Manufacture

EzoBord's acoustic panels are manufactured and packaged at seven production facilities across the USA, Canada and the UK. Archifibe first sources the primary component material, PET sheet, from a single supplier in China to their Mississauga facility in Canada. The Mississauga facility manufactures a small portion of the PET sheets and processes these sheets using a laminating line that involves electricity and heat for operation. The processed sheets are sent to the other facilities where they are processed using CNC cutting table. The manufacturer provided primary data for twelve months of data including production, resource use, electricity and heat consumption, and waste generation at the facilities. Electricity consumption is modeled using Ecoinvent datasets for the regional resource mix with the closest match to the facility.

Table 8. *List of manufacturing facilities for the EzoBord acoustic panels*

Product Category	Product	Manufacturing Facility
PET acoustic panels	EzoBord (9 and 12 mm)	▪ Archifibe Inc. |Mississauga, ON, Canada ▪ Ayrsonics Inc. – Ontario | Kitchener, ON, Canada ▪ Ayrsonics Inc. – Albarta | Rocky View County, AB, Canada ▪ Ayrsonics Midwest LLC | Elgin, IL, USA ▪ Ayrsonics Southwest LLC | Canoga Park, CA, USA***** ▪ Ayrsonics Southwest LLC | Dahlonega, GA, USA ▪ Ezobord UK Limited | Margate, Kent, UK

*****Ayrsonics Southwest LLC in Canoga Park, CA, USA has since moved to Surprise, AZ, USA.

4.2 Packaging

Table 9. *EzoBord (9 and 12 mm) packaging material components.*

Packaging material	EzoBord 9 mm			EzoBord 12 mm		
	Mass (kg)	Percentage of Total Mass	Recycled Content	Mass (kg)	Percentage of Total Mass	Recycled Content
Cardboard	0.0067	73%	100%	0.0055	73%	100%
Plastic Wrap	0.0010	11%	0%	0.0008	11%	0%
Plastic strapping	0.0002	2.1%	0%	0.0002	2.5%	0%
Bubble Wrap	0.0013	14%	20%	0.0011	14%	20%
Packing Tape	0.0000	0.0%	0%	0.0000	0.1%	0%
Total	**0.0092**	**100%**		**0.0076**	**100%**	

4.3 Transportation

Table 10. *EzoBord (9 and 12 mm) transportation summary.*

Name	Unit	Value
Fuel type	-	Diesel
Liters of fuel	l/100 km	18.7
Vehicle type	-	Diesel Truck
Transport distance	km	800
Capacity utilization	%	-
Gross mass of products transported including packaging	kg/m^2	EzoBord 9 mm: 1.3; EzoBord 12 mm: 2.2
Capacity utilization volume factor	%	*n/a*

4.4 Installation

The installation of the panels is completed using manual labor and does not require ancillary materials. As per PCR part B, 7% installation waste is assumed. Waste is generated from the disposal of the packaging material and is modeled as required in the Part A PCR.

Table 11. *EzoBord (9 and 12 mm) installation summary.*

Name	Unit	EzoBord 9 mm	EzoBord 12 mm
Ancillary materials	kg	0.00	0.00
Net freshwater consumption specified by water source and fate	m^3	0.00	0.00
Other resources	kg	0.00	0.00
Electricity consumption	kwh	0.00	0.00
Other energy carriers	MJ	0.00	0.00
Product loss per functional unit	kg	0.0085	0.0144
Waste materials at the construction site before waste processing, generated by product installation	kg	0.00	0.00
Output materials resulting from on-site waste processing	kg	0.00	0.00
Mass of packaging waste specified by type	kg	0.0091	0.0076
Recycle	kg	0.0062	0.0052
Landfill	kg	0.0025	0.0021
Incineration	kg	0.0005	0.0004
Biogenic carbon contained in packaging	kg CO_2	0.00	0.00
Direct emissions to ambient air, soil, and water	kg	0.00	0.00
VOC emissions	µg/m^3	0.00	0.00

4.5 Use

As per the part B PCR, there is assumed to be no energy, material or water inputs required during the use phase of the acoustic panel products. Hence, Modules B1, B6, and B7 are assumed to have no impacts. Moreover, Modules B2 (maintenance), B3 (Repair), and B5 (Refurbishment) are also assumed to have no impacts as the acoustic panels are assumed to not need maintenance, repair, or refurbishment duration of their RSL. The products are estimated to require replacement (B4) over the duration of the 75 year estimated service life (ESL) of the building.

Table 12. *EzoBord (9 and 12 mm) replacement summary.*

Replacement	Unit	EzoBord 9 mm	EzoBord 12 mm
Reference Service Life	Years	30	30
Replacement cycle (ESL/RSL)-1	-	1.5	1.5

4.6 End-of-Life

The deconstruction and dismantling process (Module C1) is assumed to be a manual process with hand tools and does not require energy for the removal of the product. Transport of the waste material at end-of-life for disposal is assumed to be 35 km as indicated by the Part B PCR. Module C4 (Disposal) represents the 100% landfill treatment processing, as specified in the waste scenario for the United States indicated in the Part A PCR.

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Table 13. *EzoBord (9 and 12 mm) end-of-life summary.*

End-of-life		Unit	EzoBord 9 mm	EzoBord 12 mm
Assumptions for scenario development		Manual deconstruction, followed by 35 km truck transport to final disposal in landfill		
Collection process	Collected separately	kg	0.00	0.00
	Collected with mixed construction waste	kg	0.121	0.205
Recovery	Reuse	kg	0.00	0.00
	Recycling	kg	0.00	0.00
	Landfill	kg	0.00	0.00
	Incineration	kg	0.00	0.00
	Incineration with energy recovery	kg	0.00	0.00
	Energy conversion	-	-	-
Disposal	Product of material for final deposition	kg	0.121	0.205
Removals of biogenic carbon (excluding packaging)		kg CO_2	0.00	0.00

5. LCA: Results

Results of the Life Cycle Assessment are presented in this section. It is noted that LCA results are relative expressions and do not predict impacts on category endpoints, the exceeding of thresholds, safety margins or risks. Category indicator results for the acoustic panels are summarized for the functional unit of 0.093 m^2 of acoustic panel, for the Estimated Service Life (ESL) of 75-years as required by the PCR. Modules with zero (0) impacts: B1-B3, B5-B7, C1, and C3 are omitted from the results tables. All values are rounded to three significant digits.

The following environmental impact category indicators are reported using characterization factors using the CML-IA impact assessment method and the TRACI 2.1 impact assessment method. Note that for global warming calculations, the CML characterization factors are based on IPCC 2013, while TRACI 2.1 global warming calculations are based on IPCC 2007. Note also that neither characterization method includes biogenic carbon uptake or biomass CO_2 emissions. Based on the component materials of the product and production processes, there are no impacts associated with land-use changes, nor are environmental impacts associated with carbonation relevant for the product system.

Table 14. *mandatory environmental impact assessment categories.*

CMLI-A Impact Category	Unit	TRACI 2.1 Impact Category	Unit
GWP: Global Warming Potential	kg CO_2 eq.	**GWP:** Global Warming Potential	kg CO_2 eq.
ODP: Depletion potential of the stratospheric ozone layer	kg CFC 11 eq.	**ODP:** Depletion potential of the stratospheric ozone layer	kg CFC 11 eq.
AP: Acidification Potential of soil and water	kg SO_2 eq.	**AP:** Acidification Potential of soil and water	kg SO_2 eq.
EP: Eutrophication Potential	kg PO_4^{3-} eq.	**EP:** Eutrophication Potential	kg N eq.
POCP: Photochemical Oxidant Creation Potential	kg C_2H_4 eq.	**SFP:** Smog Formation Potential	kg O_3 eq.
ADPE: Abiotic Depletion Potential, elements	kg Sb eq	**FFD:** Fossil Fuel Depletion	MJ Surplus
ADPF: Biotic Depletion Potential, fossil fuels	MJ		

These impact categories are globally deemed mature enough to be included in Type III environmental declarations. Other categories are being developed and defined and LCA should continue making advances in their development. However, the EPD users shall not use additional measures for comparative purposes. The following inventory parameters, specified by the PCR, are also reported.

Table 15. *Resource use and waste/output categories.*

Resources	Unit	Waste and Outflows	Unit
RPR_E: Renewable primary resources used as energy carrier (fuel)	MJ, LHV	**HWD:** Hazardous waste disposed	kg
RPR_M: Renewable primary resources with energy content used as material	MJ, LHV	**NHWD:** Non-hazardous waste disposed	kg
$NRPR_E$: Non-renewable primary resources used as an energy carrier (fuel)	MJ, LHV	**RWD:** Radioactive waste, conditioned, to final repository	kg
$NRPR_M$: Non-renewable primary resources with energy content used as material	MJ, LHV	**CRU:** Components for re-use	kg
SM: Secondary materials	kg	**MR:** Materials for recycling	kg
RSF: Renewable secondary fuels	MJ, LHV	**MER:** Materials for energy recovery	kg
NRSF: Non-renewable secondary fuels	MJ, LHV	**EE:** Recovered energy exported from the product system	kg
RE: Recovered energy	MJ, LHV	**EE:** Recovered energy exported from the product system	MJ, LHV
FW: Use of new freshwater resources	m^3		

EzoBord 9 mm acoustic panel results

Table 16. *CML impact indicator results for EzoBord 9 mm acoustic panels*

Module	GWP	ODP	AP	EP	POCP	ADPE	ADPF
	kg CO_2 eq	kg CFC-11 eq	kg SO_2 eq	kg PO_4^{3-} eq	kg C_2H_4 eq	kg Sb eq	MJ
A1	0.490	$6.79x10^{-7}$	$1.78x10^{-3}$	$2.66x10^{-3}$	$1.10x10^{-4}$	$1.01x10^{-6}$	7.50
A2	$7.88x10^{-2}$	$7.97x10^{-10}$	$7.00x10^{-4}$	$1.49x10^{-4}$	$2.23x10^{-5}$	$7.92x10^{-8}$	1.00
A3	$2.87x10^{-2}$	$5.09x10^{-10}$	$7.89x10^{-5}$	$1.66x10^{-4}$	$7.60x10^{-6}$	$3.47x10^{-8}$	0.436
A1-A3 Total:	**0.597**	**$6.80x10^{-7}$**	**$2.55x10^{-3}$**	**$2.97x10^{-3}$**	**$1.40x10^{-4}$**	**$1.12x10^{-6}$**	**8.94**
A4	$2.07x10^{-2}$	$2.28x10^{-10}$	$6.61x10^{-5}$	$2.61x10^{-5}$	$3.18x10^{-6}$	$3.18x10^{-8}$	0.284
A5	$8.49x10^{-3}$	$3.48x10^{-12}$	$1.61x10^{-6}$	$4.91x10^{-5}$	$1.83x10^{-6}$	$3.45x10^{-10}$	$4.16x10^{-3}$
B4	1.02	$1.09x10^{-6}$	$4.22x10^{-3}$	$7.63x10^{-3}$	$2.35x10^{-4}$	$1.85x10^{-6}$	14.9
C2	$8.99x10^{-4}$	$9.88x10^{-12}$	$2.87x10^{-6}$	$1.13x10^{-6}$	$1.38x10^{-7}$	$1.38x10^{-9}$	$1.23x10^{-2}$
C4	$1.01x10^{-2}$	$2.86x10^{-11}$	$7.33x10^{-6}$	$1.83x10^{-3}$	$1.80x10^{-6}$	$1.19x10^{-9}$	$3.08x10^{-2}$

Table 17. *TRACI impact indicator results for EzoBord 9 mm acoustic panels*

Module	GWP	ODP	AP	EP	SFP	FFD
	kg CO_2 eq	kg CFC-11 eq	kg SO_2 eq	kg N eq	kg O_3 eq	MJ Surplus
A1	0.483	$8.63x10^{-7}$	$1.87x10^{-3}$	$2.80x10^{-3}$	$2.48x10^{-2}$	0.889
A2	$7.83x10^{-2}$	$9.99x10^{-10}$	$8.09x10^{-4}$	$1.23x10^{-4}$	$1.92x10^{-2}$	0.139
A3	$2.85x10^{-2}$	$5.82x10^{-10}$	$9.28x10^{-5}$	$1.58x10^{-4}$	$1.44x10^{-3}$	$5.70x10^{-2}$
A1-A3 Total:	**0.590**	**$8.65x10^{-7}$**	**$2.77x10^{-3}$**	**$3.08x10^{-3}$**	**$4.55x10^{-2}$**	**1.09**
A4	$2.06x10^{-2}$	$2.82x10^{-10}$	$7.99x10^{-5}$	$3.14x10^{-5}$	$1.97x10^{-3}$	$3.90x10^{-2}$
A5	$8.30x10^{-3}$	$3.69x10^{-12}$	$2.19x10^{-6}$	$1.35x10^{-4}$	$3.03x10^{-5}$	$5.70x10^{-4}$
B4	1.01	$1.39x10^{-6}$	$4.60x10^{-3}$	$1.28x10^{-2}$	$7.67x10^{-2}$	1.81
C2	$8.93x10^{-4}$	$1.23x10^{-11}$	$3.47x10^{-6}$	$1.36x10^{-6}$	$8.56x10^{-5}$	$1.69x10^{-3}$
C4	$9.53x10^{-3}$	$3.58x10^{-11}$	$9.03x10^{-6}$	$5.07x10^{-3}$	$2.38x10^{-4}$	$4.45x10^{-3}$

Table 18. *Resource use indicator results for EzoBord 9 mm acoustic panels*

Module	RPR_E	RPR_M	$NRPR_E$	$NRPR_M$	SM	RSF	NRSF	RE	FW
	MJ	MJ	MJ	MJ	kg	MJ	MJ	MJ	m^3
A1	0.548	0.00	8.14	2.33	$5.55x10^{-2}$	0.00	0.00	0.00	$2.65x10^{-3}$
A2	$1.91x10^{-2}$	0.00	1.02	0.00	0.00	0.00	0.00	0.00	$1.49x10^{-4}$
A3	0.162	$6.23x10^{-2}$	0.527	0.00	0.00	0.00	0.00	0.00	$2.71x10^{-4}$
A1-A3 Total:	**0.729**	**$6.23x10^{-2}$**	**9.69**	**2.33**	**$5.55x10^{-2}$**	**0.00**	**0.00**	**0.00**	**$3.07x10^{-3}$**
A4	$4.03x10^{-3}$	0.00	0.288	0.00	0.00	0.00	0.00	0.00	$4.08x10^{-5}$
A5	$8.42x10^{-5}$	$4.36x10^{-3}$	$4.25x10^{-3}$	0.163	$3.89x10^{-3}$	0.00	0.00	0.00	$-2.26x10^{-5}$
B4	1.18	0.100	16.1	3.75	$8.91x10^{-2}$	0.00	0.00	0.00	$4.25x10^{-3}$
C2	$1.75x10^{-4}$	0.00	$1.25x10^{-2}$	0.00	0.00	0.00	0.00	0.00	$1.77x10^{-6}$
C4	$4.33x10^{-4}$	0.00	$3.12x10^{-2}$	0.00	0.00	0.00	0.00	0.00	$-4.77x10^{-4}$

Table 19. *Waste and output indicator results for EzoBord 9 mm acoustic panels*

Module	HWD	NHWD	HLRW	ILLRW	CRU	MR	MER	EE
	kg	kg	kg	kg	kg	kg	kg	MJ, LHV
A1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A3	0.00	0.00	0.00	0.00	0.00	$1.06x10^{-2}$	0.00	0.00
A1-A3 Total:	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**$1.06x10^{-2}$**	**0.00**	**0.00**
A4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A5	0.00	$4.75x10^{-4}$	0.00	0.00	0.00	$2.67x10^{-4}$	0.00	0.00
B4	0.00	0.194	0.00	0.00	0.00	$1.64x10^{-2}$	0.00	0.00
C2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
C4	0.00	0.129	0.00	0.00	0.00	0.00	0.00	0.00

EzoBord 12 mm acoustic panel results

Table 20. *CML impact indicator results for EzoBord 12 mm acoustic panels*

Module	GWP	ODP	AP	EP	POCP	ADPE	ADPF
	kg CO_2 eq	kg CFC-11 eq	kg SO_2 eq	kg PO_4^{3-} eq	kg C_2H_4 eq	kg Sb eq	MJ
A1	0.849	$1.16x10^{-6}$	$3.00x10^{-3}$	$4.50x10^{-3}$	$1.87x10^{-4}$	$1.72x10^{-6}$	13.1
A2	0.162	$1.67x10^{-9}$	$1.20x10^{-3}$	$2.82x10^{-4}$	$4.02x10^{-5}$	$1.83x10^{-7}$	2.10
A3	$4.80x10^{-2}$	$5.60x10^{-10}$	$7.27x10^{-5}$	$1.43x10^{-4}$	$7.55x10^{-6}$	$3.04x10^{-8}$	0.740
A1-A3 Total:	**1.06**	**$1.16x10^{-6}$**	**$4.26x10^{-3}$**	**$4.93x10^{-3}$**	**$2.35x10^{-4}$**	**$1.93x10^{-6}$**	**15.9**
A4	$3.38x10^{-2}$	$3.71x10^{-10}$	$1.08x10^{-4}$	$4.27x10^{-5}$	$5.20x10^{-6}$	$5.19x10^{-8}$	0.464
A5	$7.34x10^{-3}$	$2.93x10^{-12}$	$1.37x10^{-6}$	$4.25x10^{-5}$	$1.58x10^{-6}$	$2.87x10^{-10}$	$3.50x10^{-3}$
B4	1.79	$1.86x10^{-6}$	$7.05x10^{-3}$	$1.27x10^{-2}$	$3.93x10^{-4}$	$3.19x10^{-6}$	26.4
C2	$1.53x10^{-3}$	$1.68x10^{-11}$	$4.87x10^{-6}$	$1.93x10^{-6}$	$2.35x10^{-7}$	$2.34x10^{-9}$	$2.10x10^{-2}$
C4	$1.72x10^{-2}$	$4.86x10^{-11}$	$1.25x10^{-5}$	$3.10x10^{-3}$	$3.06x10^{-6}$	$2.02x10^{-9}$	$5.23x10^{-2}$

Table 21. *TRACI impact indicator results for EzoBord 12 mm acoustic panels*

Module	GWP	ODP	AP	EP	SFP	FFD
	kg CO_2 eq	kg CFC-11 eq	kg SO_2 eq	kg N eq	kg O_3 eq	MJ Surplus
A1	0.837	$1.48x10^{-6}$	$3.16x10^{-3}$	$4.69x10^{-3}$	$4.22x10^{-2}$	1.58
A2	0.161	$2.12x10^{-9}$	$1.40x10^{-3}$	$2.53x10^{-4}$	$3.37x10^{-2}$	0.290
A3	$4.76x10^{-2}$	$6.57x10^{-10}$	$8.63x10^{-5}$	$1.33x10^{-4}$	$1.48x10^{-3}$	0.110
A1-A3 Total:	**1.05**	**$1.48x10^{-6}$**	**$4.64x10^{-3}$**	**$5.07x10^{-3}$**	**$7.74x10^{-2}$**	**1.98**
A4	$3.36x10^{-2}$	$4.64x10^{-10}$	$1.30x10^{-4}$	$5.12x10^{-5}$	$3.22x10^{-3}$	$6.37x10^{-2}$
A5	$7.09x10^{-3}$	$3.13x10^{-12}$	$1.86x10^{-6}$	$1.17x10^{-4}$	$2.56x10^{-5}$	$4.79x10^{-4}$
B4	1.77	$2.38x10^{-6}$	$7.69x10^{-3}$	$2.13x10^{-2}$	0.130	3.29
C2	$1.52x10^{-3}$	$2.10x10^{-11}$	$5.89x10^{-6}$	$2.31x10^{-6}$	$1.45x10^{-4}$	$2.88x10^{-3}$
C4	$1.62x10^{-2}$	$6.11x10^{-11}$	$1.53x10^{-5}$	$8.61x10^{-3}$	$4.03x10^{-4}$	$7.55x10^{-3}$

Table 22. *Resource use indicator results for EzoBord 12 mm acoustic panels*

Module	RPR_E	RPR_M	$NRPR_E$	$NRPR_M$	SM	RSF	NRSF	RE	FW
	MJ	MJ	MJ	MJ	kg	MJ	MJ	MJ	m^3
A1	0.916	0.00	14.1	3.75	$6.56x10^{-2}$	0.00	0.00	0.00	$4.49x10^{-3}$
A2	$3.82x10^{-2}$	0.00	2.14	0.00	0.00	0.00	0.00	0.00	$3.12x10^{-4}$
A3	0.131	$9.38x10^{-2}$	0.816	0.00	0.00	0.00	0.00	0.00	$2.71x10^{-4}$
A1-A3 Total:	**1.09**	**$9.38x10^{-2}$**	**17.1**	**3.75**	**$6.56x10^{-2}$**	**0.00**	**0.00**	**0.00**	**$5.08x10^{-3}$**
A4	$6.58x10^{-3}$	0.00	0.470	0.00	0.00	0.00	0.00	0.00	$6.66x10^{-5}$
A5	$7.14x10^{-5}$	$6.57x10^{-3}$	$3.57x10^{-3}$	0.263	$4.59x10^{-3}$	0.00	0.00	0.00	$-1.96x10^{-5}$
B4	1.75	0.151	28.3	6.02	0.105	0.00	0.00	0.00	$7.02x10^{-3}$
C2	$2.97x10^{-4}$	0.00	$2.12x10^{-2}$	0.00	0.00	0.00	0.00	0.00	$3.01x10^{-6}$
C4	$7.35x10^{-4}$	0.00	$5.30x10^{-2}$	0.00	0.00	0.00	0.00	0.00	$-8.10x10^{-4}$

Table 23. *Waste and output indicator results for EzoBord 12 mm acoustic panels*

Module	HWD	NHWD	HLRW	ILLRW	CRU	MR	MER	EE
	kg	kg	kg	kg	kg	kg	kg	MJ, LHV
A1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A3	0.00	0.00	0.00	0.00	0.00	$2.40x10^{-2}$	0.00	0.00
A1-A3 Total:	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**$2.40x10^{-2}$**	**0.00**	**0.00**
A4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A5	0.00	$4.08x10^{-4}$	0.00	0.00	0.00	$1.24x10^{-4}$	0.00	0.00
B4	0.00	0.329	0.00	0.00	0.00	$3.62x10^{-2}$	0.00	0.00
C2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
C4	0.00	0.219	0.00	0.00	0.00	0.00	0.00	0.00

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6. LCA: Interpretation

The interpretation phase conforms to ISO 14044 with further guidance from the ILCD General Guide for Life Cycle Assessment. The interpretation included the use of evaluation and sensitivity checks to steer the iterative process during the assessment, and a final evaluation including completeness, sensitivity, and consistency checks, at the end of the study.

When examining the results without the replacement module (B4), the results for the EzoBord 9 and 12 mm products are dominated by the raw material extraction module (A1), with the transportation of raw materials to the manufacturer (A2) contributed significantly.

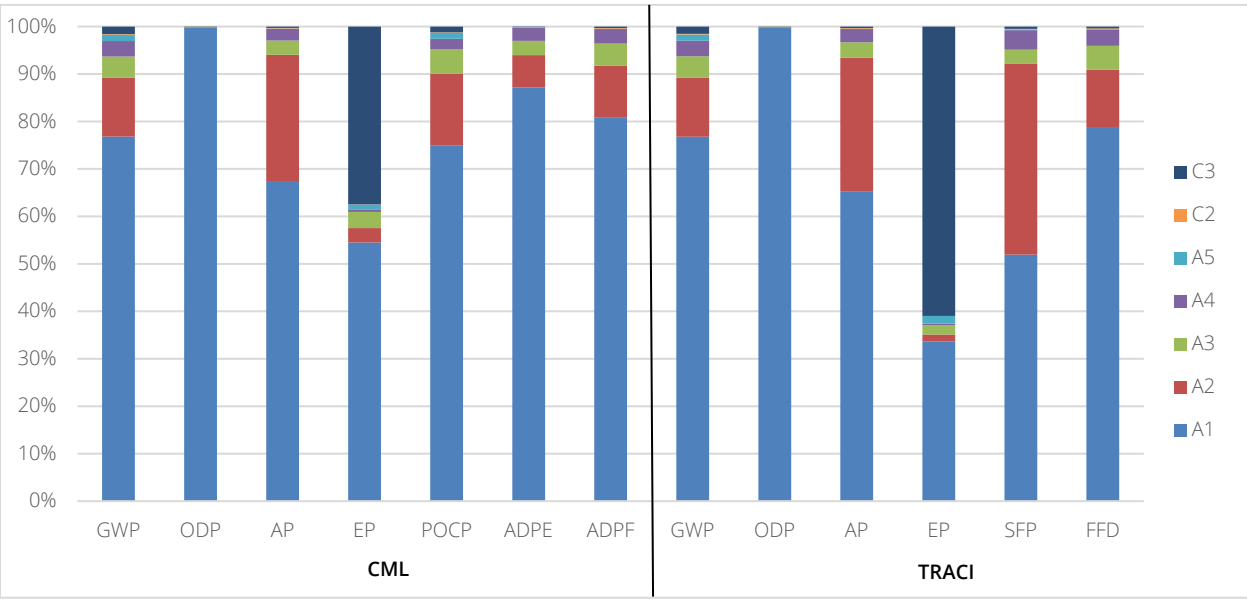

Figure 2. *Contribution analysis for the EzoBord 9 mm acoustic panels (without Module B4).*

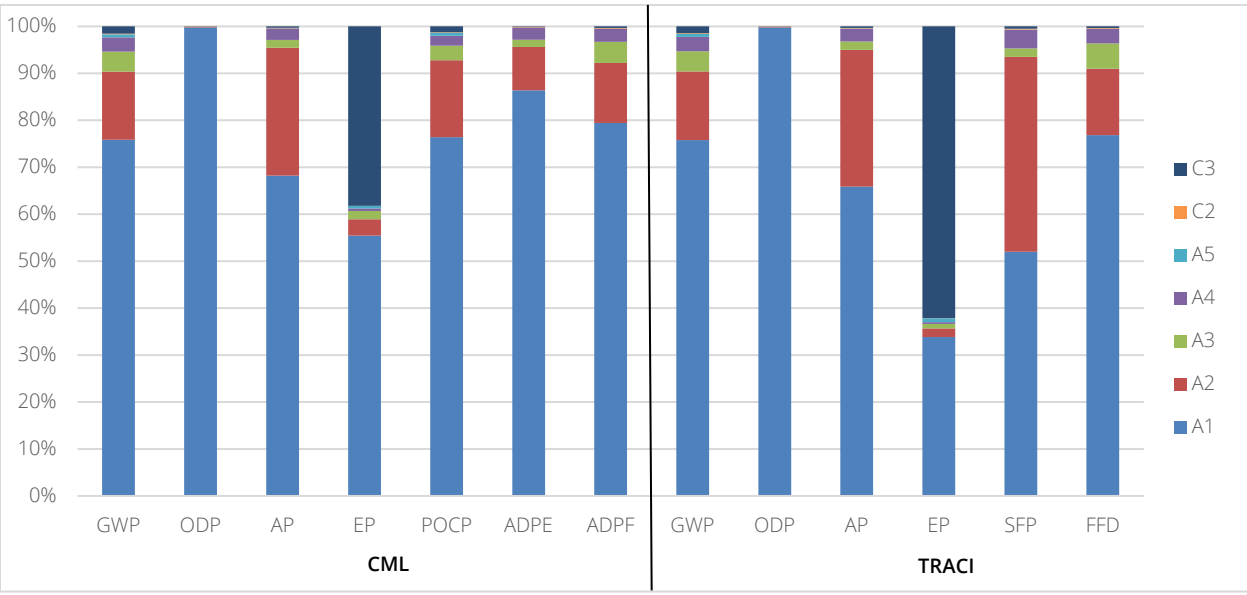

Figure 3. *Contribution analysis for the EzoBord 12 mm acoustic panels (without Module B4).*

7. Additional Environmental Information

7.1 VOC emissions

Table 24. *VOC emissions test results based on Test Method CDPH/EHLB/Standard Method V1.2*

Chemical	EzoBord 9 mm		EzoBord 12 mm	
	Predicted Concentration (Pass/Fail)		Predicted Concentration (Pass/Fail)	
	Classroom	Office	Classroom	Office
No formaldehyde or other target CREL VOCs were detected	Pass	Pass	Pass	Pass
TVOC[a]	≤ 0.5 mg/m^3	≤ 0.5 mg/m^3	≤ 0.5 mg/m^3	≤ 0.5 mg/m^3

[a] Reporting of TVOC range is for information only; TVOC is not a Pass/Fail criterion

No environmental or health impacts are expected due to extraordinary effects including fire and/or water damage and product destruction. Screening test for substances of very high concern (SVHC) resulted in no detection of all the chemical SVHCs.

For more information on EzoBord 9 and 12 mm acoustic panels' environmental certifications, please visit the website at https://ezobord.com/ezobord-material/.

7.2 Archifibe's planned take-back program

While this EPD was being developed, Archifibe was actively preparing to launch a comprehensive take-back program by the end of 2025, covering its entire product range. Although this initiative is not reflected in the current EPD/LCA data, it underscores Archifibe's dedication to innovation, sustainability, and reducing environmental impact through bold, forward-thinking solutions.

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8. References

- Life Cycle Assessment of EzoBord and EzoCore PET Acoustic Panel Products. SCS Global Services Report. Prepared for Archifibe, Inc. April 2025.
- ISO 14025:2006 Environmental labels and declarations – Type III environmental declarations – Principles and Procedures.
- ISO 14040: 2006/Amd 1:2020 Environmental Management – Life cycle assessment – Principles and Framework
- ISO 14044: 2006/Amd 1:2017/ Amd 2:2020 Environmental Management – Life cycle assessment – Requirements and Guidelines.
- ISO 21930: 2017 Sustainability in buildings and civil engineering works — Core rules for environmental product declarations of construction products and services.
- Ecoinvent v3.11 2024. Swiss Center for Life Cycle Inventories, 2024 http://www.ecoinvent.org.
- SCS Type III Environmental Declaration Program: Program Operator Manual. V12.0 December 2023. SCS Global Services.
- Tool for the Reduction and Assessment of Chemical and Other Environmental Impacts (TRACI). U.S. EPA. https://www.epa.gov/chemical-research/tool-reduction-and-assessment-chemicals-and-other-environmental-impacts-traci
- CML 4.1 baseline, from Institute of Environmental Sciences Faculty of Science University of Leiden, Netherlands.
- UL. PCR Guidance for Building-Related Products and Services Part A: Life Cycle Assessment Calculation Rules and Report Requirements. Version 4.0. December 2018.
- UL. PCR Guidance for Building-Related Products and Services Part B: Non-Metal Ceiling and Interior Wall Panel EPD Requirements. Version 2.0. April 2021.

EZO BORD



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