GLOBAL GREEN TAG INTERNATIONAL PTY LTD Level 38/71 Eagle St, Brisbane, QLD, 4000, Australia

EPD™

Environmental Product Declaration

in accordance with ISO 14025 and EN 15804

Acoufelt LLC

Truss Baffle

Company Address:	2650 N. Opdyke Road, Suite A, Auburn Hills, MI 48326 USA
Issue Date:	24 April 2024
Valid to:	24 April 2029
Document Version:	1.0

acoufelt making quiet

ECO PLATFORM

ECO PLATFORM EPD VERIFIED

Cover image is an example of Truss Baffles

Environment Product Declaration Details

EPD Scope	Cradle to Gate with options (A1 to A3, C1-C4 and D)
EPD Type	Product Specific EPD
EPD Number	ACL:FS05:2024:EP
Issue Date	24 April 2024
Valid Until	24 April 2029

CEN standard EN 15804 serves as the core PCR

Compliant with EN 15804:2012+A2:2019
Independent external verification of the declaration and data, according to ISO 14025:2010

	☐Internal	☒External
Third Party Verifier		Direshni Naiker,Gaia Conscious Consulting
Internal EPD Reviewed		Nana Bortsie-Aryee, Global GreenTag International Pty Ltd

The EPD is property of declared manufacturer. Different program EPDs may not be comparable as e.g. Australian transport is often more than elsewhere. Comparability is further dependent on the product category rules used and the source of the data. EPDs of construction products may not be comparable if they do not comply with EN15804. Further explanatory information is found at globalgreentag.com or contact: epd@globalgreentag.com.

This Environmental Product Declaration (EPD) discloses potential environmental outcomes compliant with EN 15804:2012+A2 2019 for business to business communication. LCIA results are relative expressions that do not predict impacts on category endpoints, exceeding of thresholds, safety margins or risks.

EPD Program Operator	EPD Producer	Declaration Owner
Global GreenTag International Pty Ltd Level 38, 71 Eagle Street Brisbane City QLD 4000 Australia Phone: +61 1300 263 586 http://www.globalgreentag.com	IKE Environmental Technology Co. Ltd. PO Box 610000 No.139 Kehua Middle Road, Wuhou District Phone: +86 18280064252 http://www.ike-global.com	Acoufelt LLC 2650 N. Opdyke Road, Suite A,Auburn Hills, MI 48326 USA Phone: +1 800.966.8557 https://www.acoufelt.com.au

Product Information

Product Name	Truss Baffle
Description	Truss Baffle is an acoustic ceiling baffle designed to mimic the natural aesthetic of a real wood beam, without the associated weight and sound reverberation of natural wood.
PCR	CEN Standard EN 15804+A2 2019 serves as core Product Category Rules (PCR) [PCR AIN:2021 - Acoustic Insulation(Global Green Tag International, 2021)]
Declared Unit/ Functional Unit	The function unit is 1 m^2 of Truss Baffle with an average weight of 7.68 kg/m^2 from cradle to Gate with options, C1-C4 and module D
Manufacturer Warranty	20 years
Manufacturing Site	2650 N Opdyke Rd, Auburn Hills, MI, USA
Site Representation & Geography	USA
Cut-off criteria & Data quality	Complies with EN 15804+A2:2019
Standards	This product complies with ISO 14044: 2006 EM: LCA: Requirement & guideline for data review: LCI; LCIA, Interpretation results: Include additional quality testing as required by PCR.
Restricted Substance List	N/A
Functional & Technical Performance	Industrial, commercial and residential building interior ceiling baffle. Fire Test Method Number: Group 1&ASTM E84-17a Class A Indoor Air Quality: Passed CDPH v1.2 Standard Test Method for VOC's <0.5 mg/m3 Light Fastness: ISO 105-B02 1994, 6-7 Sound Absorption: ASTM C423 with an ASTM E795 type "J" Mounting & NRC 1.65 (3"T x 12"D with 6"O.C.)
Range and variability	Standard Thickness: 12mm | 0.47" +/- 10% Dimensions: Custom size available upon request. See Specification Sheet for more information.
Primary Data	Data was collected in accordance with EN ISO 14044:2006, 4.3.2, from primary sources including factory audits, suppliers and their publications on corporate locations, logistics, technology, market share, management system, standards and commitment to improved environmental performance.
Substances of Very High Concern	Contains no substances that exceed 0.1% (1000 ppm) in the "Candidate List of Substances of Very High Concern for authorisation" of the European Chemicals Agency

Manufacturing Process

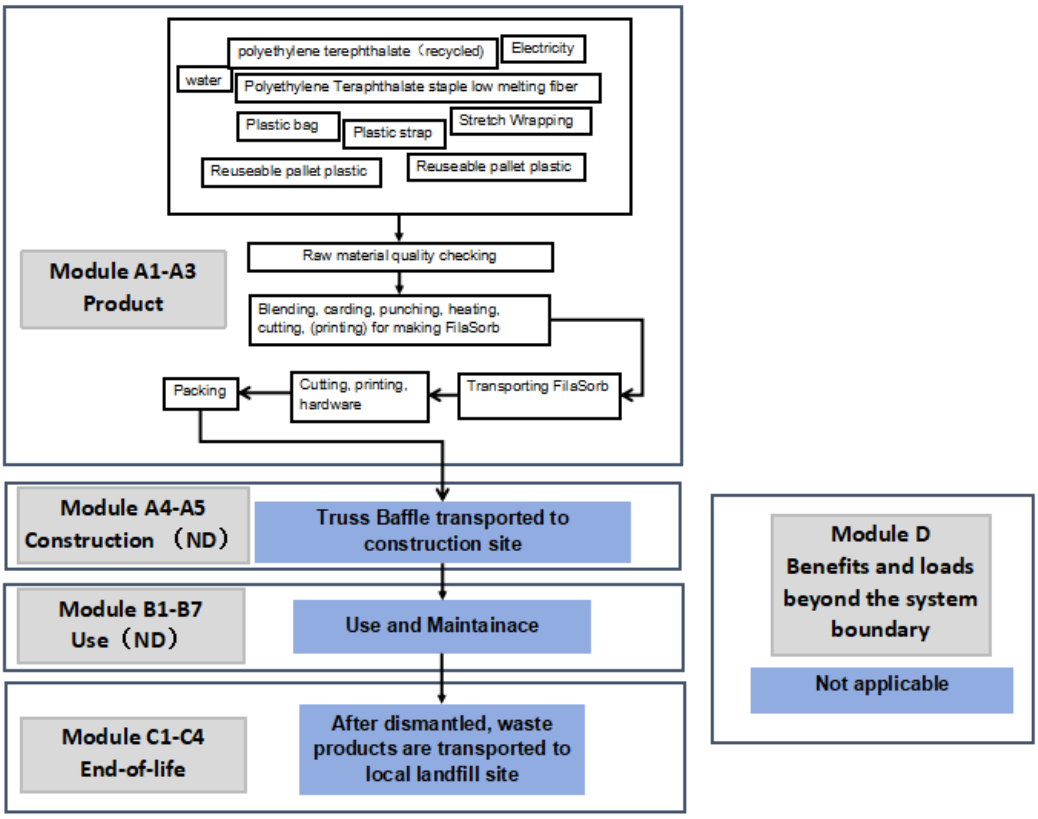

Figure 1. Truss Baffle Cradle to Gate System Boundary

Base Material Origin and Detail

Table 1 lists key components and additives by function, type, key operation, source and amount.

Table 1 Truss Baffle Base Material

Product	Component	Material	Source	% mass
Truss Baffle	FilaSorb Panel	Polyethylene Terephthalate(recycled); Polyethylene Terephthalate staple low melting fiber	Thailand	＜95%
	UV Ink	Mixture of organic chemicals	US Cleveland	＜5%
	Hot glue	Amorphous Poly Alpha Olefin	USA	＜1%
	Hardware	Stainless steel	India	＜5%

Program Description

EPD Scope	Cradle to gate with options (A1 to A3, C1-C4 and D) as defined by EN 15804+A2 and depicted in Figure 1.
System boundary	The system boundary with nature included processing material and energy system inputs, transport to factory gate, manufacturing plus packing, waste disposal, as well as waste removal and waste disposal after the expiration of product life.
Reference Service Life	20 years[1]
Comparability	EPD of construction products may not be comparable if they do not comply with EN 15804.
Product Stages Included	A1 Raw material supply • Raw material acquisition, extraction, refining and processing • Electricity generated from all sources with extraction, refining &transport A2 Transport to the factory gate A3 Manufacture of product and packaging plus • Cutting, printing, and adding hardware to product • Using cardboard, palette, etc. to packaging the product • While some scrap is modeled as being disposed of in a landfill C1, Disassembled product C2, Transport to waste processing C3, Waste processing for reuse, recovery and/or recycling C4, Disposal D, Reuse, recovery and/or recycling potentials, expressed as net impacts and benefits.
Cut Off Criteria	In this study, the "Packing Tape S-1850", "Stretch Wrap", “Banding” used in the product packaging process were excluded in accordance with EN 15804: 2012+A2 2019 section 6.3.6, because they accounted for less than 1% of the total mass input for the overall life cycle. The sum of the neglected processes over their entire life cycle does not exceed 5% of energy use and quality. The manufacturer provides transport expenditure data for all relevant material flows. Excluding machines and facilities required in the production process.
Stages Excluded	A4-5, B1-7
Data collection Year	2022
Background Data	Table 2

[1] The reference service life was determined by the manufacturer’s extended warranty.

Allocations Method	In this LCA study allocation is based on physical properties and is based on weight. For example, a variety of acoustic products are produced in one factory. The consumption (mainly electricity, raw material, packaging material consumption) of the target product is obtained by dividing the total annual production weight of each product by the total weight of all the products produced in the factory, obtaining the weight ratio of target product, and then multiplying by the total data. In the factory production process, regarding the partially generated waste scraps and packaging material "Pallet" will be recycled, and since they are recycled within the factory, no allocation will be made for them.
Scenario Modelling Assumption	Stage C - end of life: it is assumed that the product be disassembled manually and transported from building site to waste processing is 161 km (100 miles) by diesel-powered truck(unspecified). Stage D – benefits and loads beyond the system boundary: Truss Baffle is typically not reused or recycled following removal from a building. Thus, reuse, recycling, and energy recovery are not applicable for this product.
Product Average	The EPD is intended to represent an manufacturer specific Truss Baffle. The average is weighted based on the mass of product manufactured at Acoufelt LLC facility throughout 2022 year.

Background Data

Table 2. Data sources for Truss Baffle

Component	Material Description	Material Dataset	Data Source	Publication Date
Truss Baffle Component				
FilaSorb Panel	FilaSorb Panel	FilaSorb Panel	Foreground Data	2022
UV Ink	Mixture of organic chemicals	Market for chemical, organic (Global)	Ecoinvent 3.9.1	2022
Hardware	Stainless rolled steel sheet	Sheet rolling, chromium steel (Rest of world)	Ecoinvent 3.9.1	2022
Hot glue	Amorphous Poly Alpha Olefin	Market for alpha-naphthol (Global)	Ecoinvent 3.9.1	2022
FilaSorb Panel Component				
Recycled Polyethylene Terephthalate staple fiber	Polyethylene terephthalate(recycled)	Polyethylene terephthalate, granulate, bottle grade, recycled (Rest of world)	Ecoinvent 3.9.1	2022
Polyethylene Terephthalate staple low melting fiber	Polyethylene terephthalate	Polyethylene terephthalate, granulate, bottle grade (Rest of world)	Ecoinvent 3.9.1	2022
Transportation				
Local supplier freight to factory	Lorry	Transport, freight, lorry, unspecified (Rest of world)	Ecoinvent 3.9.1	2022
Sea transportation	Container ship	Market for transport, freight, sea, container ship (Global)	Ecoinvent 3.9.1	2022
Packing				

Cardboard	Carton	Market for folding boxboard carton (Rest of world)	Ecoinvent 3.9.1	2022
Coner	Kraft paper	Market for kraft paper (Rest of world)	Ecoinvent 3.9.1	2022
Energy				
Grid Electricity	Electricity provided by DTE	Market group for electricity, medium voltage (America)	Ecoinvent 3.9.1	2022
Waste Treatment				
General waste to landfill	Construction waste	Treatment of waste polyethylene terephthalate, sanitary landfill (Rest of world)	Ecoinvent 3.9.1	2022

Data Quality Assessment

The data quality assessment addressed the following parameters: time-related coverage, geographical coverage, technological coverage, precision, completeness, representativeness, consistency, reproducibility, sources of data, and uncertainty.

Table 3. Data quality assessment for the Truss Baffle system

Data Quality Parameter	Data Quality Discussion
Time-Related Coverage: Age of data and the minimum length of time over which data is collected	The most recent available data is used, based on other considerations such as data quality and similarity to the actual operations. Typically, these datasets are less than 2 years old (typically 2022). All of the data used represented an average of at least one year's worth of data collection, and up to two years in some cases. Manufacturer-supplied data (primary data) are based on annualized production for 2022-2023.
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 provides the best possible representation available with current data. Surrogate data used in the assessment are representative of global or rest of world operations. Data representative of rest of world operations are considered sufficiently similar to actual processes. Data representing product packing disposal are based on regional statistics.
Technology Coverage: Specific technology or technology mix	For the most part, data is 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	All relevant foreground data is primary data, which is collected from on-site reviewing and supported by professional data input document. The activity data of the enterprise are all from enterprise statistics or on-site measured data, with high precision.

Data Quality Parameter	Data Quality Discussion
Completeness: Percentage of flow that is measured or estimated	The LCA model included all known mass and energy flows for production of the Truss Baffle. 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	In this study, for all background processes representative primary data input based on specific industry averages which derived from various reliable databases and the data input for foreground processes all obtained from on-site product related precise investigation. Data used in the assessment represent 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	In order to figure out that the LCA methodology can be uniformly applied or not, various component's qualitative assessment is conducted. The primary data input provided by manufacturers is re-checked and recalculated.
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 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 Acoufelt LLC's facility in USA represent an annual average and are considered of high quality due to the length of time over which these data are collected. For secondary LCI datasets, Ecoinvent v3.9.1 LCI data are used.
Uncertainty of the Information: Uncertainty related to data, models, and assumptions	Uncertainty related to materials in the Truss Baffle 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 (<2 years).

LCA Scenarios and Additional Technical Information

Product stage (A1-A3)

The electricity consumption data of the production stage is calculated based on the power and usage time of the instruments used in each process, and these calculated electricity consumption data are verified by the manufacturer. In additional, the manufacturer claims that the electricity used during the production stage comes from DTE, but there is no specific producer's electricity in the background database, so there is an approximate replacement by market group for electricity medium voltage from Ecoinvent database.

For raw and auxiliary materials imported from foreign countries, only the sea transportation distance was counted, and the road transportation distance was assumed to be 161km.

EoL stage (C1 - C4, D)

The disposal stage includes demolition of the products (C1): These products can be disassembled manually, so no resource and material consumption and no environmental emissions are generated during demolition.

Transport of these disassembled products to waste treatment facilities (C2): Assumes a 161 km average distance to disposal with unspecified diesel truck. The data for waste transportation per t*km are obtained from Ecoinvent 3.9.1. The functional unit was defined as diesel trucks completing 1t*km on the suburb’ s highway with unspecified load capacity.

Waste processing (C3): It is assumed that the dismantled product is hauled directly to landfill site, so there is no additional waste disposal process.

Waste disposal(C4): It is assumed that dismantled products are disposed of in landfill.

Table 4. EoL parameters for Truss Baffle, per 1 m^2

Processes	Unit	Truss Baffle
Collection Process	kg: collected separately	7.68
Transportation	km	161
Recovery System	kg: landfill	7.68

(D):According to the information provided by the manufacturer, the vast majority of the product covered in this report will be disposed of in landfills, and the product does not contain biogenic carbon, to be conservative, assuming that the product does not involve reuse, recovery and/ or recycling potentials.

Information Modules

The LCA and EPD declare results for default A1-A3, C1-C4 and D information modules as shown in Figure 2. Optional modules and stages A4-A5, B1-B7 are excluded and are marked Not Declared (ND). ND does not indicate zero inventory or impact results.

	Product			Construction		Use stage of building fabric and operation							End of life stage				Resource recovery stage
	A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
	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	Reuse-Recovery-Recycling-potential
Modules	✓	✓	✓	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	✓	✓	✓	✓	✓
Modelling	**Actual**			**Scenarios**													**Optional**

MND = Module not declared ✓= included

Figure 2. Phases and Stages Cradle to Gate

The description of life cycle stage A-D are as follows:

A1 Extraction and processing of raw materials for the Truss Baffle components.
A2 Transport of component materials to the manufacturing facilities
A3 Manufacturing of Truss Baffle and packaging
A4 Transport of product (including packaging) to the building site（ND）
A5 Install the product（ND）
B1 Use of the Truss Baffle in a building setting（ND）
B2 Maintenance of the usage phase（ND）
B3-B5 Repairing, replacing and refurbishing during the use phase (ND)
B6 Energy use during the use phase (ND)
B7 Water use during the use phase (ND)
C1 Demolition of the products is accomplished by using hand tools
C2 Transport of waste Truss Baffle to local recycling centre at end-of-life
C3 No other waste processing
C4 Waste Truss Baffle are landfilled
D Waste Truss Baffle are landfilled and thus benefits are declared to be zero

Product Average

The environmental impact category indicators are also reported based on the EFv3.1 characterization factors according to EN15804.

Table 5. LCA impact indicators

Core Environmental Impact Indicators		
Impact category	**Indicator**	**Unit**
Climate change - fossil	GWP-fossil	kg CO_2 eq
Climate change - biogenic	GWP-biogenic	kg CO_2 eq
Climate change - land use and land use change	GWP-luluc	kg CO_2 eq
Climate change – total	GWP-total	kg CO_2 eq
Ozone Depletion	ODP	kg CFC 11 eq.
Acidification	AP	mol H+ eq.
Depletion of abiotic resources -fossil fuels	ADP-fossil	MJ, net calorific value
Eutrophication aquatic freshwater	EP-freshwater	kg P eq.
Eutrophication aquatic marine	EP-marine	kg N eq.
Eutrophication terrestrial	EP-terrestrial	mol N eq
Photochemical ozone formation	POCP	kg NMVOC eq.
Depletion of abiotic resources -minerals and metals	ADP-minerals&metals	kg Sb eq.
Depletion of abiotic resources -fossil fuels	ADP- fossil	kg Sb eq.
Water use	WDP	m^3 world eq
Additional Environmental Impact Indicators		
Impact category	**Indicator**	**Unit**
Particulate Matter emissions	PM	Disease incidence
Ionizing radiation, human health	IRP	kBq U235 eq
Eco-toxicity (freshwater)	ETP-fw	CTUe
Human toxicity, cancer effects	HTP-c	CTUh
Human toxicity, non-cancer effects	HTP-nc	CTUh
Land use related impacts/ Soil quality	SQP	dimensionless

Results of the Life Cycle Assessment are presented below.

Table 6. Cradle to Gate LCA results for 1m^2 Truss Baffle

/		Truss Baffle
Core environmental impact indicators	GWP-total	2.57E+01
	GWP-luluc	3.50E-02
	GWP-biogenic	6.31E-01
	GWP-fossil	2.51E+01
	ADP-fossil	4.26E+02
	ADP minerals & metals	1.19E-03
	EP-freshwater	8.58E-03
	POCP	1.04E-01
	AP	1.35E-01
	EP-terrestrial	3.06E-01
	EP-marine	5.19E-02
	ODP	4.64E-05
	WDP	8.38E+00
Additional environmental impact indicators	ETP-fw	1.06E+02
	HTP-c	1.37E-08
	HTP-nc	2.98E-07
	SQP	9.81E+01
	PM	1.24E-06
	IRP	1.08E+00

Cradle to Gate + Options Inventory

Table 7 Key life cycle inventory parameters for 1m^2 Truss Baffle

Parameter	Units	A1-A3	C1	C2	C3	C4	D
Indicators describing resource use							
Non-renewable primary energy resources not feedstock	MJ	2.69E+02	0.00E+00	2.65E+00	0.00E+00	2.03E+00	0.00E+00
Non-renewable primary energy resources feedstock	MJ	1.52E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Total Non-renewable primary energy resources	MJ	4.21E+02	0.00E+00	2.65E+00	0.00E+00	2.03E+00	0.00E+00
Renewable primary energy not feedstock	MJ	2.52E+01	0.00E+00	4.13E-02	0.00E+00	4.22E-02	0.00E+00
Renewable primary energy feedstock	MJ	9.40E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Total Renewable primary energy	MJ	3.46E+01	0.00E+00	4.13E-02	0.00E+00	4.22E-02	0.00E+00
Use of secondary material	kg	4.46E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of renewable secondary fuels	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	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Net use of fresh water	m3	8.27E-02	0.00E+00	1.82E-04	0.00E+00	3.15E-04	0.00E+00
Environmental information describing waste categories							
Hazardous waste	kg	3.10E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Non-hazardous waste	kg	2.31E+00	0.00E+00	0.00E+00	0.00E+00	7.68E+00	0.00E+00
Radioactive waste disposed	kg	1.61E-04	0.00E+00	1.35E-06	0.00E+00	9.16E-05	0.00E+00
Environmental information describing output flows							
Components for re-use	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Materials for recycling	kg	7.68E-01	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
Exported energy	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Table 8 LCIA results for 1m^2 Truss Baffle product in the production and waste phase cycle

Truss Baffle	A1-A3	C1	C2	C3	C4	D
GWP-LU	3.43E-02	0.00E+00	6.56E-04	0.00E+00	7.62E-05	0.00E+00
GWP	2.46E+01	0.00E+00	1.85E-01	0.00E+00	6.94E-01	0.00E+00
GWP-Biogenic	6.08E-01	0.00E+00	5.43E-05	0.00E+00	4.97E-04	0.00E+00
GWP-Fossil	2.40E+01	0.00E+00	1.84E-01	0.00E+00	6.94E-01	0.00E+00
ADP-fossil	4.09E+02	0.00E+00	2.65E+00	0.00E+00	2.03E+00	0.00E+00
ADP-minerals and metals	1.16E-03	0.00E+00	5.76E-07	0.00E+00	2.09E-07	0.00E+00
EP-freshwater	8.52E-03	0.00E+00	1.55E-05	0.00E+00	1.37E-05	0.00E+00
POFP	1.02E-01	0.00E+00	1.22E-03	0.00E+00	1.06E-03	0.00E+00
AP	1.34E-01	0.00E+00	8.81E-04	0.00E+00	6.81E-04	0.00E+00
EP-terrestrial	3.00E-01	0.00E+00	3.57E-03	0.00E+00	2.68E-03	0.00E+00
EP-marine	3.41E-02	0.00E+00	3.38E-04	0.00E+00	1.74E-02	0.00E+00
ODP	4.46E-05	0.00E+00	3.28E-09	0.00E+00	2.16E-09	0.00E+00
WU	8.37E+00	0.00E+00	2.29E-02	0.00E+00	1.21E-02	0.00E+00
ET-freshwater	1.11E+02	0.00E+00	1.93E+00	0.00E+00	2.48E+00	0.00E+00
HT-cancer	1.67E-08	0.00E+00	9.78E-11	0.00E+00	5.46E-11	0.00E+00
HT-non-cancer	2.96E-07	0.00E+00	2.13E-09	0.00E+00	1.54E-09	0.00E+00
LU	9.17E+01	0.00E+00	2.08E+00	0.00E+00	4.46E+00	0.00E+00
PM	1.21E-06	0.00E+00	1.82E-08	0.00E+00	1.43E-08	0.00E+00
IR	1.11E+00	0.00E+00	2.53E-03	0.00E+00	3.20E-03	0.00E+00

Interpretation

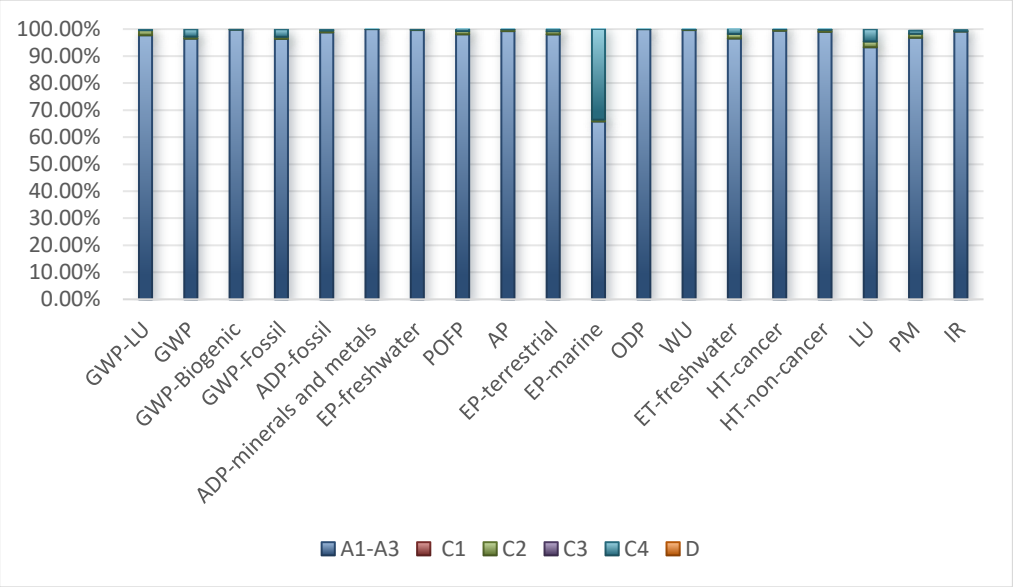

Figure 3. Truss Baffle product each stage contribution to LCA results

For the given figures, the A1-A3 manufacturing module presents the high proportion of total environmental impacts for all indicators in the modelled life-cycle modules (A1-A3, C1-C4 and D).

For the indicator EP-marine, the high contribution of the C4 phase compared to other indicators is due to direct emissions such as total organic carbon during waste disposal (Treatment of waste polyethylene terephthalate, sanitary landfill).

The LCA study has been carried out based on available data, information, regional and global knowledge and experience to achieve more possible accuracy, completeness and representative of the results. No known flows are deliberately excluded from this EPD.

References for this EPD

1. EN 15804:2012+A2:2019 Sustainability of construction works – Environmental product declarations – Core rules for the product category of construction products.
2. Ecoinvent, Switzerland. Ecoinvent database. http://www.ecoinvent.org/
3. ISO 14025:2006 Environmental labelling & declarations Type III EPDs Principles & procedures ISO 14031:1999 EM: Environmental performance evaluation: Guidelines
4. ISO 14040:2006: Life cycle assessment (LCA): Principles & framework
5. ISO 14044:2006: LCA: Requirement & guideline for data review: LCI; LCIA, Interpretation results
6. CML LCA methodology, Institute of Environmental Sciences (CML), Faculty of Science, University of Leiden, Netherlands
7. Global GreenTag International. 2021 Product Category Rules AIN– 2021 Acoustic Insulation. https://www.globalgreentag.com/get/files/1107/2021-acoustic-insulation-pcr.pdf
8. Commission Recommendation 2013/179/EU. Commission Recommendation of 9 April 2013 on the use of common methods to measure and communicate the life cycle environmental performance of products and organisations Text with EEA relevance. http://data.europa.eu/eli/reco/2013/179/oj
9. Fazio, S. Zampori, L. Schryver, A.D. Kusche, O. Thellier, L. Diaconu. E. Guide for EF compliant data sets: Version 2.0, EUR 30175 EN, Publications Office of the European Union, Luxembourg, 2020, ISBN 978-92-76-17951-1, doi:10.2760/537292, JRC120340
10. Valente, A. Kusche, O. Ardente, F. Updates on “Guide for EF compliant data sets (Version 2.0)” to reflect the changes in the Environmental Footprint 3.1 reference package.,2022