Environmental Product Declaration

RevWood Contract Laminate Flooring

RevWood Contract from Mohawk Group is the latest innovation in hard surface flooring. Featuring the most realistic wood visuals with emboss in register technology, attached pad for premium sound absorption, waterproof click system, and maximum scratch and wear resistance.

Mohawk Group

Sustainability is a core value for Mohawk Group. We use life cycle assessment to better understand the impacts of our products and inform strategies to drive towards zero impact. Mohawk Group shares these environmental product declarations to help customers better understand a product's sustainable qualities to make better informed product selections. Our culture drives us to seek innovation and efficiency throughout the life cycle of our products, thus reducing our consumption of water, energy, and raw materials. At Mohawk Group, we believe in better. And better for our world means being part of the climate change solution through decarbonization of our products. So, we're taking all our flooring beyond carbon neutral, to build a regenerative, climate-positive future to create a better tomorrow for people and the planet. Through third-party verification, Mohawk embraces transparency for the benefit of both itself and its customer.

For more information, visit: mohawkgroup.com

UL CERTIFIED ENVIRONMENTAL PRODUCT DECLARATION UL.COM/EPD

ENVIRONMENTAL PRODUCT DECLARATION

Mohawk Group

CERTIFIED ENVIRONMENTAL PRODUCT DECLARATION UL.COM/EPD

RevWood Contract
10mm Padded and Unpadded Laminate Flooring

According to ISO 14025 and ISO21930:2017

EPD PROGRAM AND PROGRAM OPERATOR NAME, ADDRESS, LOGO, AND WEBSITE	UL Solutions, 333 Pfingsten Rd., Northbrook, IL 606011 WWW.UL.COM WWW.SPOT.UL.COM
GENERAL PROGRAM INSTRUCTIONS AND VERSION NUMBER	UL Environment Environmental Product Declaration Program, GENERAL PROGRAM INSTRUCTIONS, VERSION 2.7, MARCH 2022
MANUFACTURER NAME AND ADDRESS	Mohawk Industries 160 South Industrial Blvd. Calhoun, GA, 30701
DECLARATION NUMBER	4790854194.101.1
DECLARED PRODUCT & FUNCTIONAL UNIT OR DECLARED UNIT	10mm RevWood Padded and Unpadded Flooring 1 m2 of finished floor covering for a period of 75 years
REFERENCE PCR AND VERSION NUMBER	Part A: Life Cycle Assessment Calculation Rules and Report Requirements (UL Environment, V3.2, 2018) Part B: Flooring EPD Requirements (UL Environment V2.0, 2018)
DESCRIPTION OF PRODUCT APPLICATION/USE	Laminate flooring planks are commonly used in a variety of applications, including commercial, light commercial, institutional, and residential interiors and flooring.
PRODUCT RSL DESCRIPTION (IF APPL.)	30 years
MARKETS OF APPLICABILITY	North America
DATE OF ISSUE	September 1, 2023
PERIOD OF VALIDITY	5 Years
EPD TYPE	Product-Specific
RANGE OF DATASET VARIABILITY	N/A
EPD SCOPE	Cradle-to-Grave
YEAR(S) OF REPORTED PRIMARY DATA	2021
LCA SOFTWARE & VERSION NUMBER	LCA for Experts 10.7.0.183
LCI DATABASE(S) & VERSION NUMBER	LCA for Experts CUP 2023.1
LCIA METHODOLOGY & VERSION NUMBER	TRACI 2.1

The PCR review was conducted by:	Jack Ceibig, Ecoform Thomas Gloria, PhD, Industrial Ecology Consultants Thaddeus Owen
This declaration was independently verified in accordance with ISO 14025: 2006. ☐ INTERNAL ☒ EXTERNAL	Cooper McCollum Cooper McCollum, UL Solutions
This life cycle assessment was conducted in accordance with ISO 14044 and the reference PCR by:	Nicholas Hammond, WAP Sustainability Consulting, LLC
This life cycle assessment was independently verified in accordance with ISO 14044 and the reference PCR by:	Thomas Gloria, PhD, Industrial Ecology Consultants

LIMITATIONS

Exclusions: EPDs do not indicate that any environmental or social performance benchmarks are met, and there may be impacts that they do not encompass. LCAs do not typically address the site-specific environmental impacts of raw material extraction, nor are they meant to assess human health toxicity. EPDs can complement but cannot replace tools and certifications that are designed to address these impacts and/or set performance thresholds – e.g. Type 1 certifications, health assessments and declarations, environmental impact assessments, etc.

Accuracy of Results: EPDs regularly rely on estimations of impacts; the level of accuracy in estimation of effect differs for any particular product line and reported impact.

Comparability: EPDs from different programs may not be comparable. Full conformance with a PCR allows EPD comparability only when all stages of a life cycle have been considered. However, variations and deviations are possible". Example of variations: Different LCA software and background LCI datasets may lead to differences results for upstream or downstream of the life cycle stages declared.

1. Product Definition and Information

1.1. Description of Company/Organization

Mohawk is a leading manufacturer of carpet, wood, laminate, and luxury vinyl tile flooring that began in 1878. Mohawk is committed to growing in ways that are environmentally sound, socially responsible, and make sense for their stakeholders. The Mohawk Group strives to design and manufacture innovative products with reduced environmental and social impacts. As part of the world's largest flooring manufacturer, Mohawk feels a profound sense of responsibility to advance their shared mission of a more sustainable future.

1.2. Product Description

Product Identification

This EPD is for 10mm thick RevWood Contract flooring products which may be either padded or unpadded. The products are manufactured at one of two facilities in the United States, in the state of North Carolina. The flooring boards primarily consist of high density fiberboard and MUF resin. The boards feature a patented uniclic locking system for easy instalation. The primary UNSPSC code for this flooring product is 30161700 and the CSI code is 09 62 00.

Flow Diagram

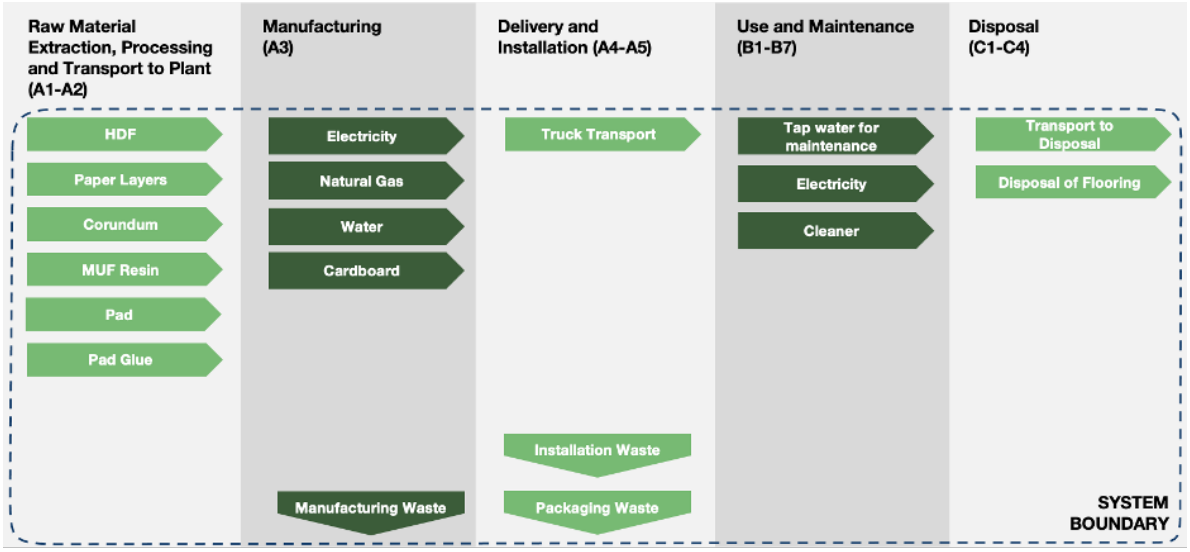

Figure 1: System Boundary

Product Average

Results in this LCA are presented based on a 10mm thick padded and unpadded product that is calculated from the total materials consumed during 2021 and annual production data for sites which produce RevWood flooring.

1.3. Application

Wood plank products are commonly used in a variety of applications including commercial, light commercial, institutional, and residential interior applications.

1.4. Declaration of Methodological Framework

This LCA is considered a Cradle-to-Grave study. The LCA for this study follows an attributional approach. Infrastructure flows have been excluded.

A summary of the life cycle stages included in this EPD is presented in Table 6. The reference service life is outlined in Table 9 and is only applicable if all manufacturing guidelines are followed regarding site-selection and installation, found online. No known flows are deliberately excluded from this EPD. Third party verified ISO 14040/44 secondary LCI data sets contribute more than 67% of total impacts in all impact categories required by the PCR.

1.5. Technical Data

Table 1: Technical Details

PARAMETER	VALUE		UNIT
	Padded	Unpadded	
Use Rating	Light Commercial Laminated Wood		
Core Type	High Density Fiberboard		
Thickness	11.5	10	mm
Length	1.38	1.38	m
Width	0.19	0.19	m
Product Weight	8,910	8,820	g/m^2
Density	774,783	882,000	g/m^3
Underlay Weight	90	na	g/m^2

1.6. Properties of Declared Product as Delivered

RevWood planks are delivered in cardboard packaging.

1.7. Material Composition

Table 2: Material Composition

COMPONENT	COMPOSITION	
	Padded	Unpadded
Core	93.6%	94.5%
Paper Layers	1.9%	2.1%
Corundum	<1%	<1%
MUF Resin	3.1%	3.1%
Pad	<1%	-
Pad Glue	<1%	-

1.8. Manufacturing

Mohawk sources HDF primairly (60%) from an internal supply stream where yellow pine chips are purchased domestically from the Unites States and compressed into HDF using MUF resin. The remaining 40% of HDF comes from external suppliers including the US, Brazil, Turkey, and France as demand requires. The core layer is sandwiched between paper layers using additional MUF resin and then cut to size. A sound dampening pad is added to the bottom of the boards if purchasing the padded product.

1.9. Packaging

Once the planks are manufactured, they are packaged in cardboard. The amount of packaging is detailed in Table 3.

Table 3: Packaging Inputs, per functional unit

Input	Values		Unit
	Padded	Unpadded	
Cardboard	0.16	0.16	kg/m^2

1.10. Transportation

The product is delivered to the customer via truck. Transportation distances are based on the default scenarios of the PCR and are shown in Table 7.

1.11. Product Installation

Manual installation of the flooring product is assumed. The flooring is engineered with interlocking grooves which allow for the floor panels to lock together without the need of nails or additional adhesive. Because of the manual nature of the installation, only the disposal of packaging is included within A5. The disposal of packaging is detailed within Table 8. Disposal has been modeled as per guidelines in section 2.8.5 of Part A: Life Cycle Assessment Calculation Rules and Report Requirements from UL Environment.

1.12. Use

According to Part A of the PCR, the Estimated Service Life (ESL) of the building is assumed to be 75 years. The Reference Service Life (RSL) of the RevWood laminate flooring is determined to be 30 years. Therefore, 1.5 replacements will be needed over the duration of the ESL. There are some impacts during the maintenance (B2) stage as the product uses electricity for vaccuming, water, and cleaning solution for cleaning purposes. The cleaning scenario used to determine environmental impacts is described in Table 10.

The study does not include the impacts associated with repair, replacement, and refurbishment (B3-B5) as minimal resources are used in the rare occasion that repair, replacement, or refurbishment is necessary.

1.13. Reference Service Life and Estimated Building Service Life

According to Part A of the PCR, the Estimated Service Life (ESL) of the building is assumed to be 75 years. The Reference Service Life (RSL) of the RevWood laminate flooring is determined to be 30 years. Therefore, 1.5 replacements will be needed over the duration of the ESL.

1.14. Reuse, Recycling, and Energy Recovery

A part of the offcuts from high density fiberboard are used in a wood chip boiler in the facility that in turn is used for the thermal treatment of manufacturing materials. Sawdust from the flooring manufacturers are sent to an external recycler.

1.15. Disposal

All waste has been classified according to regional-specific legislation as laid out in Section 2.8.6 in Part A: Life Cycle Assessment Calculation rules and Report Requirements from UL Environment. Waste has been classified as “other materials” for the Unites States region.

Table 4: End of Life Parameters, per functional unit

	Disposal Mechanism	Values		Unit
		Padded	Unpadded	
Collected as mixed construction waste	-	8.91	8.82	kg
Waste to be processed	0% recycled	0	0	kg
	100% landfilled	8.91	8.82	kg
	0% incinerated	0	0	kg

2. Life Cycle Assessment Background Information

2.1. Functional or Declared Unit

The functional unit according to the UL PCR is 1 m^2 of finished flooring installed in a building with an estimated service life of 75 years.

Table 5 shows additional details related to the functional unit. The function of a floor covering is to cover and protect the flooring substrate.

Table 5: Functional Unit

	Values		Unit
	Padded	Unpadded	
Functional Unit	1	1	m^2
Average Weight per m^2	8.91	8.82	kg

2.2. System Boundary

This EPD is considered a Cradle-to-Grave study. A summary of the life cycle modules included in this EPD is presented in Table 6. Infrastructure flows have been excluded.

Table 6: System Boundary

Module Name	Description	Analysis Period	Summary of Included Elements
A1	Product Stage: Raw Material Supply	2021	Raw Material sourcing and processing as defined by secondary data.
A2	Product Stage: Transport	2021	Shipping from supplier to manufacturing site. Fuel use requirements estimated based on product weights and measured and calculated distance.
A3	Product Stage: Manufacturing	2021	Energy, water and material inputs required for manufacturing products from raw materials. Packaging materials and manufacturing waste are included as well.
A4	Construction Process Stage: Transport	2021	Shipping from manufacturing site to project site. Fuel use requirements estimated based on assumed distance recommended by the PCR (Part B).
A5	Construction Process Stage: Installation	2021	Disposal of packaging waste as installation is assumed to be manual with minimal product loss
B1	Use Stage: Use	2021	Use of the product.
B2	Use Stage: Maintenance	2021	Water, electricity, and cleaning solution used for cleaning.
B3	Use Stage: Repair	2021	No inputs required for repairs as minimal resources are used in the rare occasion that a repair is necessary.
B4	Use Stage: Replacement	2021	Replacement rate is based on the gap between the RSL and the ESL. 1.5 replacements are needed.
B5	Use Stage: Refurbishment	2021	As such, RevWood floors last as long as the RSL and does not need refurbishment in general.
B6	Operational Energy Use	2021	No Operational Energy Use of Building Integrated System During Product Use
B7	Operational Water Use	2021	No Operational Water Use of Building Integrated System During Product Use
C1	EOL: Deconstruction	2021	No inputs required for deconstruction.
C2	EOL: Transport	2021	Shipping from project site to landfill, incineration or recycling center. Fuel use requirements estimated based on product weight and assumed distance recommended by the PCR (Part B).
C3	EOL: Waste Processing	2021	Waste processing included for incineration and not applicable for this product.
C4	EOL: Disposal	2021	Assumes all products are sent to landfill.
D	Benefits beyond system	MND	Module Not Declared

2.3. Estimates and Assumptions

All estimates and assumptions are within the requirements of ISO 14040/44. The majority of the estimations are within the primary data. Some assumptions made in the study that may have affected the results are:

- The primary data was collected as annual totals including all utility usage and production information. For the LCA, the usage information was divided by the production to create an energy and water use per square meter.
- Installation tools are used enough times that the per-square-meter impacts are negligible.
- The disposal pathways and the corresponding transportation distances of unused product waste, packaging waste, and post-consumer product waste are assumed in accordance with the PCR.
- The use and selection of secondary datasets from GaBi – The selection of which generic dataset to use to represent an aspect of a supply chain is a significant value choice. Collaboration between LCA practitioner, Mohawk associates, and secondary data experts was valuable in determining best-case scenarios in the selection of data. However, no generic data can be a perfect fit. Improved supply chain-specific data would improve the accuracy of results, however budgetary and time constraints have to be taken into account.

2.4. Cut-off Criteria

Material inputs greater than 1% (based on total mass of the final product) were included within the scope of analysis. Material inputs less than 1% were included if sufficient data was available to warrant inclusion and/or the material input was thought to have significant environmental impact. No known flows or material inputs are deliberately excluded from this EPD.

2.5. Data Sources

Primary data was collected by mafi associates for onsite energy, water and waste during the course of manufacturing. Whenever available, supplier data was used for raw materials used in the production process. When primary data did not exist, secondary data for raw material production was used from LCA for Experts version 10.7.0.183, Content Update Pack 2023.1. All calculation procedures adhere to ISO14044.

2.6. Data Quality

The geographical scope of the manufacturing portion of the life cycle is the United States. All primary data were collected from the manufacturer. The geographic coverage of primary data is considered excellent. Primary data were provided by the manufacturer and represent all information for calendar year 2021. Primary data provided by the manufacturer is specific to the technology that the company uses in manufacturing their product. It is site-specific and considered of good quality. Data used to allocate energy and water on a per unit of product produced includes overhead energy such as lighting, heating and sanitary use of water. Sub-metering was not available to extract process only energy and water use from the total energy use. Sub-metering would improve the technological coverage of data quality.

2.7. Period under Review

The period under review is calendar year 2021.

2.8. Allocation

General principles of allocation were based on ISO 14040/44. To derive a per unit value for manufacturing inputs such as electricity, thermal energy, and water, allocation based on total production in square meters was adopted. As a default, secondary LCA for Experts datasets use a physical mass basis for allocation. Throughout the study, recycled materials were accounted for via the cut-off method. Under this method, impacts and benefits associated with the previous life of a raw material from recycled stock are excluded from the system boundary. Additionally, impacts and benefits associated with secondary functions of materials at end of life are also excluded (i.e. production into a third life or energy generation from the incineration plant). The study does include the impacts associated with reprocessing and preparation of recycled materials that are part of the bill of materials of the products under study.

2.9. Comparability and Benchmarking

The user of the EPD should take care when comparing EPDs from different companies. Assumptions, data sources, and assessment tools may all impact the variability of the final results and make comparisons misleading. Without understanding the specific variability, the user is therefore, not encouraged to compare EPDs. Even for similar products, differences in use and end-of-life stage assumptions, and data quality may produce incomparable results. Comparison of the environmental performance of flooring products using EPD information shall be based on the product's use and impacts at the building level, and therefore EPDs may not be used for comparability purposes when not considering the building energy use phase as instructed under this PCR. Full conformance with the PCR for flooring products allows EPD comparability only when all stages of a life cycle have been considered. However, variations and deviations are possible. Example of variations: Different LCA software and background LCI datasets may lead to differences results for upstream or downstream of the life cycle stages declared.

3. Life Cycle Assessment Scenarios

Table 7. Transport to the building site (A4) per Functional Unit

NAME	VALUE		UNIT
	Padded	Unpadded	
Fuel type	Diesel	Diesel	
Fuel efficiency for full vehicle	39.06	39.06	l/100km
Vehicle type	Heavy-duty diesel truck / 53,333 lb. payload	Heavy-duty diesel truck / 53,333 lb. payload	
Transport distance	800	800	km
Capacity utilization (including empty runs, mass based)	67	67	%
Gross density of products transported	775	882	kg/m^3
Capacity utilization volume factor (factor: =1 or <1 or ≥ 1 for compressed or nested packaging products)	1	1	-

Table 8. Installation into the building (A5)

NAME	VALUE		UNIT
	Padded	Unpadded	
Packaging Waste to Landfill	0.028	0.028	kg/m^2
Packaging Waste to Incineration	0.007	0.007	kg/m^2
Packaging Waste to Recycling	0.124	0.123	kg/m^2
Biogenic carbon contained in packaging	0.322	0.319	kg CO_2

Table 9. Reference Service Life

NAME	VALUE	UNIT
RSL	30	years
Declared product properties (at the gate) and finishes, etc.	See Table 1	Units as appropriate
Design application parameters (if instructed by the manufacturer), including references to the appropriate practices and application codes)	Installation per recommendation by manufacturer	-
An assumed quality of work, when installed in accordance with the manufacturer's instructions	Accepted industry standard	-
Indoor environment, (if relevant for indoor applications), e.g., temperature, moisture, chemical exposure)	Normal building operating conditions	-
Use conditions, e.g., frequency of use, mechanical exposure.	Normal building operating conditions	-

Table 10. Maintenance (B2)

NAME	VALUE	UNIT
Maintenance process information	Weekly cleaning using both vacuuming and damp mopping with a 1-2 solution of acetone and water as the cleaning agent.	
Maintenance cycle	1,560	cycles/ RSL
Maintenance cycle	3,900	cycles/ ESL
Net Freshwater Consumption	435, tap water, evaporated	kg/ m^2/ESL
Cleaning agent	0.893	kg/m^2/ESL
Energy input	1.65, vacuum	kWh/m^2/ESL
Direct emissions to ambient air, soil and water	0	kg

The study does not include the impacts associated with repair and refurbishment (B3 or B5) as minimal resources are used in the rare occasion that repair or refurbishment is necessary.

Table 11. Replacement (B4)

NAME	VALUE		UNIT
	Padded	Unpadded	
Reference Service Life	30	30	Years
Replacement Cycle	1.5	1.5	(ESL/RSL) -1

The product does not require operational energy or water use of the building integrated systems (B6-B7).

Table 12. End of life (C1-C4)

NAME		VALUE		UNIT
		Padded	Unpadded	
Assumptions for scenario development		Product is either disposed of with the underlying floor or manually removed via scraping		
Collection process	Collected separately	0	0	kg
	Collected with mixed construction waste	8.91	8.91	kg
Recovery	Reuse	0	0	kg
	Recycling	0	0	kg
	Landfill	8.91	8.91	kg
	Incineration	0	0	kg
	Incineration with energy recovery	0	0	kg
	Energy conversion efficiency rate	0	0	%
Disposal	Product or material for final deposition	8.91	8.91	kg
Removals of biogenic carbon (excluding packaging)		13.6	13.5	kg CO_2

4. Life Cycle Assessment Results

Table 13. Description of the system boundary modules

	PRODUCT STAGE			CONSTRUCT-ION PROCESS STAGE		USE STAGE							END OF LIFE STAGE				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 supply	Transport	Manufacturing	Transport from gate to site	Assembly/Install	Use	Maintenance	Repair	Replacement	Refurbishment	Building Operational Energy Use During Product Use	Building Operational Water Use During Product Use	Deconstruction	Transport	Waste processing	Disposal	Reuse, Recovery, Recycling Potential
Cradle to Grave	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	MND

An X in the table above signifies that a module was included in the life cycle assessment. MND stands for Module Not Declared and signifies that a life cycle stage was not evaluated in the life cycle assessment.

4.1. Life Cycle Impact Assessment Results

Table 14: Description of Results Indicators

Abbreviation	Indicator	Abbreviation	Indicator
	Impact Assessment Results		
AP	Acidification potential of soil and water	ODP	Depletion of stratospheric ozone layer
EP	Eutrophication potential	POCP	Photochemical ozone creation potential (Smog)
GWPi	Global warming potential (100 years, includes biogenic CO2)	GWPe	Global warming potential (100 years, excludes biogenic CO2)
ADP-elements	Abiotic depletion potential of minerals and metals	ADP-fossil	Abiotic depletion potential of fossil fuel resources
	Life Cycle Inventory Data		
RPRE	Use of renewable primary energy excluding renewable primary energy resources used as raw materials	FW	Net use of fresh water
RPRM	Use of renewable primary energy resources used as raw materials	HWD	Disposed-of-hazardous waste
RPRT	Total use of renewable primary energy resources	NHWD	Disposed-of non-hazardous waste
NRPRE	Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials	HLRW	High-level radioactive waste, conditioned, to final repository
NRPRM	Use of non-renewable primary energy resources used as raw materials	ILLRW	Intermediate- and low-level radioactive waste, conditioned, to final repository
NRPRT	Total use of non-renewable primary energy resources	CRU	Components for reuse
SM	Use of secondary materials	MR	Materials for recycling
RSF	Use of renewable secondary fuels	MER	Materials for energy recovery
NRSF	Use of non-renewable secondary fuels	EEE	Exported electrical energy
RE	Recovered energy	EET	Exported thermal energy

Table 15. Results for 1 m^2 10mm Padded Laminate Flooring

	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4
TRACI v2.1 (North American Impact Assessment Results)														
GWPi [kg CO_2 eq]	-9.97E+00	5.87E-01	3.77E-02	0.00E+00	1.39E+00	0.00E+00	6.27E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.18E-04	0.00E+00	1.35E+01
GWPe [kg CO_2 eq]	6.60E+00	5.87E-01	2.09E-02	0.00E+00	1.38E+00	0.00E+00	2.58E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.18E-04	0.00E+00	1.00E+01
ODP [kg CFC-11 eq]	5.36E-07	1.50E-15	3.91E-17	0.00E+00	7.26E-14	0.00E+00	8.04E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.84E-18	0.00E+00	9.16E-15
AP [kg SO_2 eq]	2.32E-02	2.68E-03	6.71E-05	0.00E+00	1.79E-03	0.00E+00	1.10E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.99E-06	0.00E+00	4.77E-02
EP [kg N eq]	2.91E-03	2.37E-04	1.11E-05	0.00E+00	4.72E-04	0.00E+00	2.15E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.08E-07	0.00E+00	1.12E-02
POCP [kg O_3 eq]	5.18E-01	6.20E-02	3.10E-04	0.00E+00	3.55E-02	0.00E+00	1.03E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.55E-05	0.00E+00	1.08E-01
ADP-fossil [MJ, LHV]	1.14E+02	8.11E+00	1.36E-02	0.00E+00	2.65E+01	0.00E+00	1.88E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.96E-03	0.00E+00	2.89E+00
EN 15804+A2 (European Impact Assessment Results)														
GWP – total [kg CO2 eq]	-9.94E+00	5.90E-01	3.82E-02	0.00E+00	1.39E+00	0.00E+00	6.65E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.21E-04	0.00E+00	1.37E+01
GWP, fossil [kg CO2 eq]	6.51E+00	5.88E-01	9.77E-04	0.00E+00	1.38E+00	0.00E+00	1.10E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.19E-04	0.00E+00	2.04E-01
GWP, biogenic [kg CO2 eq]	-1.65E+01	4.26E-04	3.72E-02	0.00E+00	1.79E-02	0.00E+00	-4.32E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.23E-07	0.00E+00	1.35E+01
GWP, land use [kg CO2 eq]	2.42E-03	6.60E-04	3.72E-07	0.00E+00	1.08E-04	0.00E+00	4.73E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.11E-07	0.00E+00	7.06E-05
ODP [kg CFC-11 eq.]	2.40E-07	7.12E-14	1.86E-15	0.00E+00	3.43E-12	0.00E+00	3.60E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.74E-17	0.00E+00	4.35E-13
AP [Mole of H+ eq.]	2.20E-02	2.87E-03	5.49E-05	0.00E+00	1.80E-03	0.00E+00	7.44E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.14E-06	0.00E+00	2.47E-02
EP, FW [kg P eq.]	2.81E-05	2.85E-06	4.41E-07	0.00E+00	2.10E-05	0.00E+00	1.26E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.50E-09	0.00E+00	5.24E-05
EP, Marine [kg N eq.]	8.81E-03	1.45E-03	1.12E-05	0.00E+00	6.05E-04	0.00E+00	3.30E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.05E-06	0.00E+00	1.17E-02
EP, Terr. [Mole of N eq.]	8.24E-02	1.59E-02	2.42E-04	0.00E+00	6.03E-03	0.00E+00	3.12E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.16E-05	0.00E+00	1.10E-01
POCP [kg NMVOC eq.]	4.34E-02	2.94E-03	2.81E-05	0.00E+00	2.84E-03	0.00E+00	8.73E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.09E-06	0.00E+00	1.18E-02
ADP-Elements [kg Sb eq.]	5.00E-07	3.80E-08	5.28E-11	0.00E+00	6.46E-08	0.00E+00	8.23E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.67E-11	0.00E+00	1.08E-08
ADP-fossil fuel [MJ]	1.32E+02	7.61E+00	1.40E-02	0.00E+00	2.92E+01	0.00E+00	2.15E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.35E-03	0.00E+00	2.93E+00
Water [m^3 world equiv.]	1.11E+00	3.39E-02	1.03E-03	0.00E+00	1.49E+01	0.00E+00	1.81E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.16E-05	0.00E+00	6.22E-02
Carbon Emissions and Uptake														
BCRP [kg CO2]	1.78E+01	0.00E+00	-1.24E-01	0.00E+00	0.00E+00	0.00E+00	2.66E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
BCEP [kg CO2]	7.27E-02	0.00E+00	3.51E-02	0.00E+00	0.00E+00	0.00E+00	2.06E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.36E+01	0.00E+00
BCRK [kg CO2]	3.22E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.83E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
BCEK [kg CO2]	0.00E+00	0.00E+00	3.22E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
BCEW [kg CO2]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CCE [kg CO2]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CCR [kg CO2]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CWNR [kg CO2]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Resource Use Indicators														
RPRE [MJ]	-1.89E+02	3.26E-01	1.51E-03	0.00E+00	2.76E+00	0.00E+00	-2.83E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.00E-04	0.00E+00	3.49E-01
RPRM [MJ]	1.98E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.97E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RPRT [MJ]	8.37E+00	3.26E-01	1.51E-03	0.00E+00	2.76E+00	0.00E+00	1.36E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.00E-04	0.00E+00	3.49E-01
NRPRE [MJ]	6.02E+01	8.17E+00	1.42E-02	0.00E+00	2.93E+01	0.00E+00	1.07E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.00E-02	0.00E+00	2.98E+00
NRPRM [MJ]	3.67E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.51E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
NRPRT [MJ]	9.69E+01	8.17E+00	1.42E-02	0.00E+00	2.93E+01	0.00E+00	1.62E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.00E-02	0.00E+00	2.98E+00
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	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	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	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RE [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	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
FW [m3]	3.65E-02	1.12E-03	2.47E-05	0.00E+00	4.43E-01	0.00E+00	5.88E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.37E-06	0.00E+00	1.59E-03
Output Flows and Waste Categories														
HWD [kg]	2.11E-05	2.35E-11	3.62E-13	0.00E+00	1.02E-09	0.00E+00	3.16E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.89E-14	0.00E+00	7.44E-11
NHWD [kg]	1.13E-01	7.11E-04	2.21E-02	0.00E+00	3.29E-02	0.00E+00	8.83E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.74E-07	0.00E+00	5.75E+00
HLRW [kg]	7.98E-06	2.78E-08	2.67E-10	0.00E+00	1.18E-06	0.00E+00	1.21E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.42E-11	0.00E+00	3.69E-08
ILLRW [kg]	6.82E-03	2.34E-05	2.31E-07	0.00E+00	9.95E-04	0.00E+00	1.03E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.88E-08	0.00E+00	3.30E-05
CRU [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	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MR [kg]	1.06E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.59E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MER [kg]	0.00E+00	0.00E+00	7.02E-03	0.00E+00	0.00E+00	0.00E+00	1.05E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
EEE [MJ]	1.93E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.90E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
EET [MJ]	8.85E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.33E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Table 16. Results for 1 m² 10mm Unadded Laminate Flooring

	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4
TRACI v2.1 (North American Impact Assessment Results)														
GWPi [kg CO_2 eq]	-1.03E+01	5.81E-01	3.73E-02	0.00E+00	1.39E+00	0.00E+00	5.62E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.11E-04	0.00E+00	1.34E+01
GWPe [kg CO_2 eq]	6.31E+00	5.81E-01	2.07E-02	0.00E+00	1.38E+00	0.00E+00	2.52E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.11E-04	0.00E+00	9.91E+00
ODP [kg CFC-11 eq]	5.36E-07	1.48E-15	3.88E-17	0.00E+00	7.26E-14	0.00E+00	8.04E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.82E-18	0.00E+00	9.07E-15
AP [kg SO_2 eq]	2.24E-02	2.65E-03	6.64E-05	0.00E+00	1.79E-03	0.00E+00	1.08E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.97E-06	0.00E+00	4.72E-02
EP [kg N eq]	2.86E-03	2.35E-04	1.09E-05	0.00E+00	4.72E-04	0.00E+00	2.13E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.06E-07	0.00E+00	1.11E-02
POCP [kg O_3 eq]	5.05E-01	6.14E-02	3.07E-04	0.00E+00	3.55E-02	0.00E+00	1.01E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.50E-05	0.00E+00	1.07E-01
ADP-fossil [MJ, LHV]	1.06E+02	8.03E+00	1.35E-02	0.00E+00	2.65E+01	0.00E+00	1.76E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.86E-03	0.00E+00	2.86E+00
EN 15804+A2 (European Impact Assessment Results)														
GWP – total [kg CO2 eq]	-1.02E+01	5.84E-01	3.78E-02	0.00E+00	1.39E+00	0.00E+00	6.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.14E-04	0.00E+00	1.36E+01
GWP, fossil [kg CO2 eq]	6.23E+00	5.83E-01	9.67E-04	0.00E+00	1.38E+00	0.00E+00	1.05E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.12E-04	0.00E+00	2.02E-01
GWP, biogenic [kg CO2 eq]	-1.65E+01	4.21E-04	3.68E-02	0.00E+00	1.79E-02	0.00E+00	-4.52E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.18E-07	0.00E+00	1.34E+01
GWP, land use [kg CO2 eq]	2.39E-03	6.53E-04	3.69E-07	0.00E+00	1.08E-04	0.00E+00	4.67E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.03E-07	0.00E+00	6.99E-05
ODP [kg CFC-11 eq.]	2.40E-07	7.04E-14	1.84E-15	0.00E+00	3.43E-12	0.00E+00	3.60E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.65E-17	0.00E+00	4.31E-13
AP [Mole of H+ eq.]	2.10E-02	2.84E-03	5.43E-05	0.00E+00	1.80E-03	0.00E+00	7.25E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.12E-06	0.00E+00	2.44E-02
EP, FW [kg P eq.]	2.76E-05	2.82E-06	4.36E-07	0.00E+00	2.10E-05	0.00E+00	1.24E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.47E-09	0.00E+00	5.19E-05
EP, Marine [kg N eq.]	8.62E-03	1.43E-03	1.11E-05	0.00E+00	6.05E-04	0.00E+00	3.25E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.04E-06	0.00E+00	1.16E-02
EP, Terr. [Mole of N eq.]	8.04E-02	1.58E-02	2.40E-04	0.00E+00	6.03E-03	0.00E+00	3.07E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.15E-05	0.00E+00	1.09E-01
POCP [kg NMVOC eq.]	4.23E-02	2.91E-03	2.78E-05	0.00E+00	2.84E-03	0.00E+00	8.55E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.07E-06	0.00E+00	1.17E-02
ADP-Elements [kg Sb eq.]	4.91E-07	3.77E-08	5.23E-11	0.00E+00	6.46E-08	0.00E+00	8.09E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.63E-11	0.00E+00	1.07E-08
ADP-fossil fuel [MJ]	1.24E+02	7.54E+00	1.39E-02	0.00E+00	2.92E+01	0.00E+00	2.01E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.26E-03	0.00E+00	2.90E+00
Water [m^3 world equiv.]	1.05E+00	3.35E-02	1.02E-03	0.00E+00	1.49E+01	0.00E+00	1.72E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.12E-05	0.00E+00	6.16E-02
Carbon Emissions and Uptake														
BCRP [kg CO2]	1.78E+01	0.00E+00	-1.23E-01	0.00E+00	0.00E+00	0.00E+00	2.66E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
BCEP [kg CO2]	7.20E-02	0.00E+00	3.48E-02	0.00E+00	0.00E+00	0.00E+00	2.04E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.35E+01	0.00E+00
BCRK [kg CO2]	3.19E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.78E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
BCEK [kg CO2]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
BCEW [kg CO2]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CCE [kg CO2]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CCR [kg CO2]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CWNR [kg CO2]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Resource Use Indicators														
RPRE [MJ]	-1.90E+02	3.22E-01	1.49E-03	0.00E+00	2.76E+00	0.00E+00	-2.83E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.96E-04	0.00E+00	3.46E-01
RPRM [MJ]	1.98E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.97E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RPRT [MJ]	8.14E+00	3.22E-01	1.49E-03	0.00E+00	2.76E+00	0.00E+00	1.32E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.96E-04	0.00E+00	3.46E-01
NRPRE [MJ]	5.96E+01	8.09E+00	1.41E-02	0.00E+00	2.93E+01	0.00E+00	1.06E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.94E-03	0.00E+00	2.95E+00
NRPRM [MJ]	3.26E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.89E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
NRPRT [MJ]	9.22E+01	8.09E+00	1.41E-02	0.00E+00	2.93E+01	0.00E+00	1.55E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.94E-03	0.00E+00	2.95E+00
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	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	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	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RE [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	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
FW [m3]	3.50E-02	1.11E-03	2.44E-05	0.00E+00	4.43E-01	0.00E+00	5.65E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.36E-06	0.00E+00	1.57E-03
Output Flows and Waste Categories														
HWD [kg]	2.09E-05	2.33E-11	3.58E-13	0.00E+00	1.02E-09	0.00E+00	3.13E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.86E-14	0.00E+00	7.36E-11
NHWD [kg]	1.11E-01	7.04E-04	2.19E-02	0.00E+00	3.29E-02	0.00E+00	8.74E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.65E-07	0.00E+00	5.70E+00
HLRW [kg]	7.70E-06	2.75E-08	2.65E-10	0.00E+00	1.18E-06	0.00E+00	1.17E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.38E-11	0.00E+00	3.65E-08
ILLRW [kg]	6.58E-03	2.32E-05	2.29E-07	0.00E+00	9.95E-04	0.00E+00	9.95E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.85E-08	0.00E+00	3.27E-05
CRU [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	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MR [kg]	1.05E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.58E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MER [kg]	0.00E+00	0.00E+00	6.95E-03	0.00E+00	0.00E+00	0.00E+00	1.04E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
EEE [MJ]	1.92E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.88E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
EET [MJ]	8.78E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.32E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

5. LCA Interpretation

Figure 2 represents the contributions of all life cycle models for the 10mm padded flooring. Life cycle impacts for the unpadded flooring from a relative contribution perspective are nearly identical and a separate figure is not warranted.

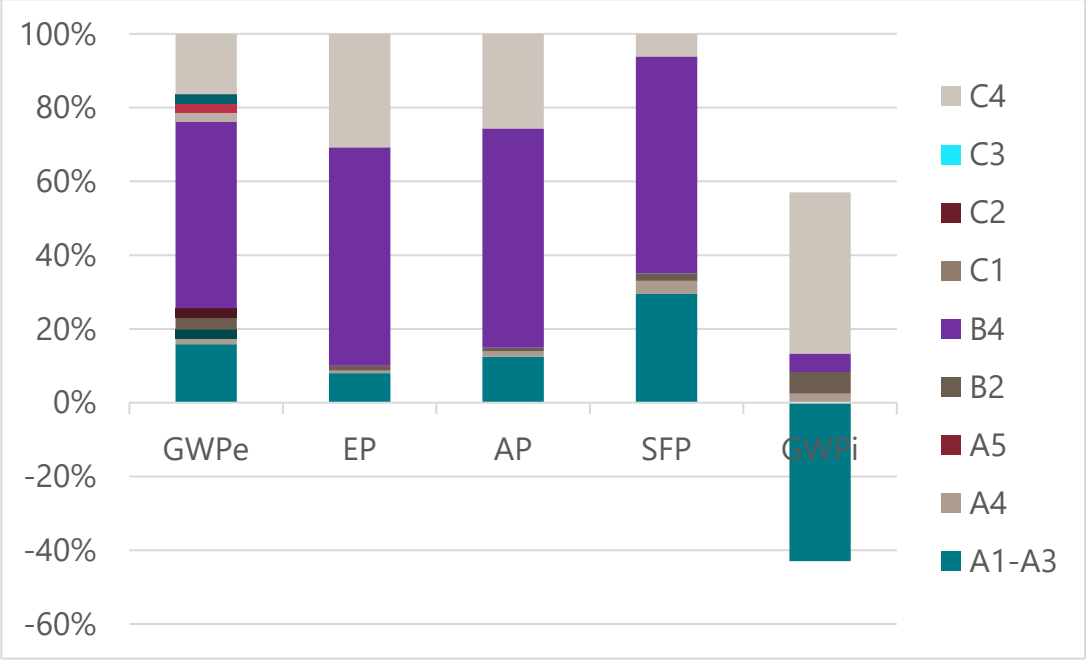

Figure 2: Contribution analysis for 10mm Padded RevWood Contract Laminate Flooring – TRACI 2.1

The dominate driver of impacts over the life cycle of the flooring is the replacements required to scale the RSL to the ESL of the building. Impacts of the disposal of the product particularly drive EP more than any other impact catetory. Impacts from the disposal of the product will ofset any benefit from biogenic carbon intake of the wood chip mass used for the HDF core. The decomposition of biological material in landfills additionally emits methane under anaerobic conditions which has a very high GWP value in the short term. Negative GWPi values in the A1-A3 module should not be used to claim that the product is carbon negative.

Some limitations to the study have been identified as follows:

- Supplier specific MUF resin data was not provided and modeling of MUF relies on an LCI from a recently published study on wood resins.
- Landfilling of wood products at the end of life can produce vastly different impacts based on the landfilling practices in the disposal area.
- Availability of geographically more accurate datasets would have improved the accuracy of the study.
- Only known and quantifiable environmental impacts are considered.
- Due to the assumptions and value choices listed above, these do not reflect real-life scenarios and hence they cannot assess actual and exact impacts, but only potential environmental impacts.

6. Additional Environmental Information

6.1. Environmental Activities and Certifications

More information on Mohawk's product, manufacturing operations, and company portfolio can be found at https://www.mohawkgroup.com/.

6.2. Extraordinary Effects

The product has no additional impact to the environment during unforeseeable extraordinary effects including fire, flooding, or mechanical destruction.

7. References

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4. ISO 14044: 2006 Environmental Management – Life cycle assessment – Requirements and Guidelines.
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6. ISO 14025:2006 Environmental labels and declarations – Type III environmental declarations – Principles and Procedures.
7. ISO 21930:2017 Sustainability in buildings and civil engineering works – Core rules for environmental product declarations of construction products and services.
8. European Standard EN 15804:2012+A2:2019/AC:2021. Sustainability of construction works – Environmental product declarations – Core rules for the product category of construction products.
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11. UL Environment Program Operator Rules v2.7 March 2022