

ENVIRONMENTAL PRODUCT DECLARATION

METAL CEILING PANELS

CERTAINTEED ARCHITECTURAL SOLUTIONS (NORCROSS, GA)

PLANK & TILE, LINEAR, LINEAR-EXTERIOR, LINEAR PLANK, LINEAR PLANK-EXTERIOR, CELL, AND BEAMS & BAFFLES



Metal ceiling system with a range of aesthetic and performance properties.



With innovative building solutions made possible through its comprehensive offering of interior and exterior products, CertainTeed is transforming how the industry builds. As leaders in building science and sustainable construction, CertainTeed makes it easier than ever to create high-performance, energy-efficient places to live, work and play, so that together we can make the world a better home.

A subsidiary of Saint-Gobain, one of the world's largest and oldest building products companies, CertainTeed has more than 6,900 employees and more than 60 manufacturing facilities throughout the United States and Canada. For more information visit: www.certainteed.com



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and ISO 21930:2017

EPD PROGRAM AND PROGRAM OPERATOR NAME, ADDRESS, LOGO, AND WEBSITE	UL SOLUTIONS 333 PFINGSTEN RD, NORTHBROOK, IL 60062	WWW.UL.COM WWW.SPOT.UL.COM
GENERAL PROGRAM INSTRUCTIONS AND VERSION NUMBER	Program Operator Rules v 2.7 2022	
MANUFACTURER NAME AND ADDRESS	CertainTeed Architectural Solutions 5015 Oakbrook Pkwy STE 100, Norcross, GA 30093	
DECLARATION NUMBER	4791015127.101.1	
DECLARED PRODUCT & DECLARED UNIT OR DECLARED UNIT	Metal Ceiling Panels - Norcross, GA	
REFERENCE PCR AND VERSION NUMBER	Product Category Rules for Building-Related Product and Services: Part A – Life Cycle Assessment Calculation Rules and Report Requirements, Version 3.2. December 2018. UL Environment. Product Category Rule Guidance for Building-Related Products and Services Part B: Metal Ceiling and Interior Wall Panel System EPD Requirements, Version 1.0 2020. UL Environment. CSI: 30161602	
DESCRIPTION OF PRODUCT APPLICATION/USE	Modular installation of suspended ceilings in commercial buildings.	
PRODUCT RSL DESCRIPTION (IF APPL.)	N/A	
MARKETS OF APPLICABILITY	North America	
DATE OF ISSUE	July 15 th 2024	
PERIOD OF VALIDITY	5 Years	
EPD TYPE	Product-specific	
RANGE OF DATASET VARIABILITY	N/A	
EPD SCOPE	Cradle to gate with options	
YEAR(S) OF REPORTED PRIMARY DATA	2022	
LCA SOFTWARE & VERSION NUMBER	LCA FE software v10.7	
LCI DATABASE(S) & VERSION NUMBER	The Sphera GaBi 2022.2, US LCI, and Ecoinvent v3.8 databases	
LCIA METHODOLOGY & VERSION NUMBER	TRACI v2.1	

The PCR review was conducted by:	UL Solutions
	PCR Review Panel
	epd@ul.com

This declaration was independently verified in accordance with ISO 14025: 2006. ☐ INTERNAL ☒ EXTERNAL	 Cooper McCollum, UL Solutions
	Saint-Gobain North America ESG

This life cycle assessment was conducted in accordance with ISO 14044 and the reference PCR by: This life cycle assessment was independently verified in accordance with ISO 14044 and the reference PCR by:	 Maggie Wildnauer, WAP Sustainability Consulting
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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.

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1. Product Definition and Information

1.1. Description of Company/Organization

CertainTeed Corporation, a subsidiary of Saint-Gobain, is a leading North American manufacturer of interior building materials including gypsum, ceilings, and insulation as well as exterior building materials which include roofing, vinyl siding, and trim.

1.2. Product Description

Product Identification

The Specialty Metal Ceiling Panel product family is made up of the **Plank & Tile, Linear, Linear-Exterior, Linear Plank, Linear Plank-Exterior, Cell, and Beams & Baffles** acoustic ceiling products. These products are manufactured in Norcross, Georgia. CertainTeed Architectural's quality assurance process is based on industry-accepted best practices that involve constant measurement and evaluation throughout the manufacturing process. The Saint-Gobain Acoustical Laboratory is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) and has been assessed against the management and technical requirements published in the International Standard, ISO/IEC 17025:2017. This Environmental Product Declaration (EPD) is developed for these ceiling panel products only and does not include the ceiling suspension systems. Those are examined in a separate EPD.



Features

- Compatible with industry standard lighting, HVAC speaker, fire safety and security services
- Seismic rating: Zones A, B, C, D, E, F
- Class A rated per ASTM E84 / CAN/ULC S102 Surface burning characteristics
- Flame Spread: 25 or less Smoke development: 50 or less
- Wind load: Per code (for exterior applications) Miami-Dade NOA 21-0427.06 (expires March 19, 2025)
- No VOCs: No added urea-formaldehyde



Flow Diagram

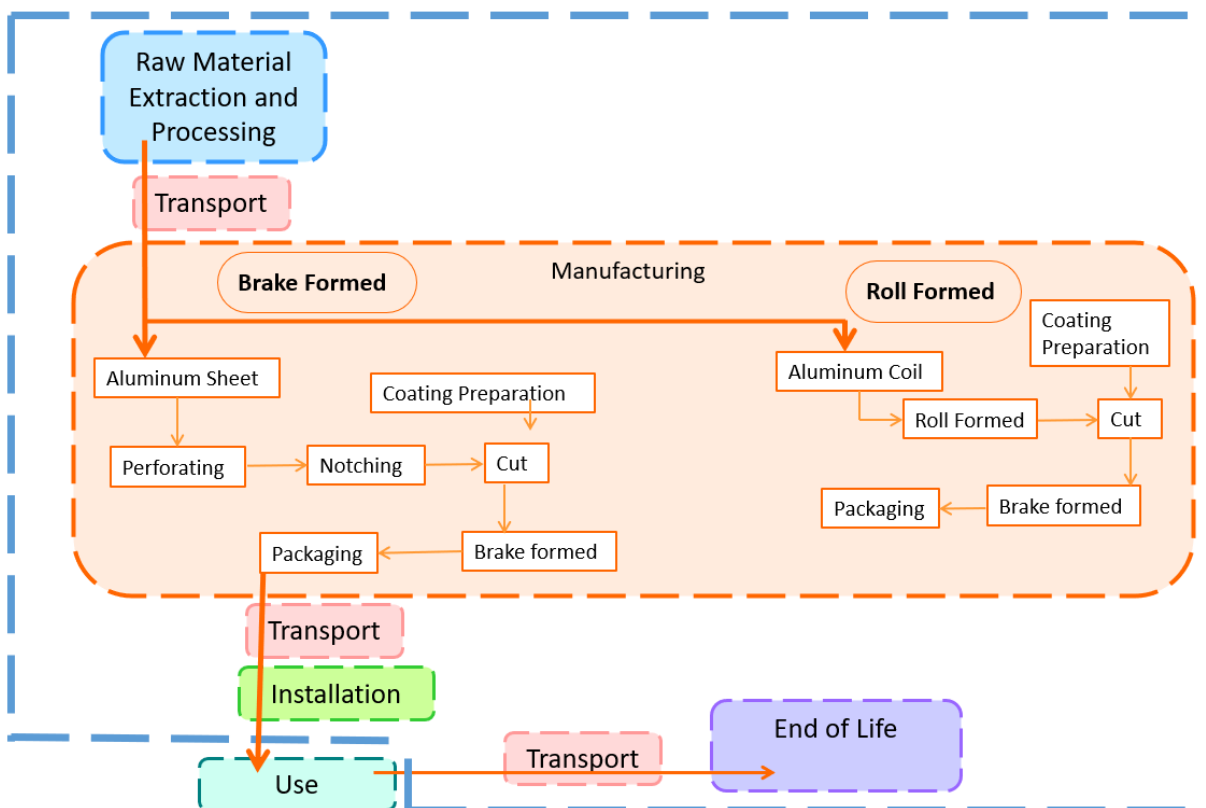


Figure 1. Flow Diagram

Product Specific

This is a product specific EPD manufactured in one facility. Multiple products within the product lines were analyzed and a weighted average was calculated to showcase the results of various product lines. Each product uses between one and four aluminum suppliers. Products with multiple aluminum suppliers were analyzed individually, then the product line was averaged to showcase all suppliers utilized. This assessment was completed to ensure the products included in the product line grouping differ by no more than $\pm 10\%$ for any environmental impact indicator.

1.3. Application

Modular installation of suspended ceilings in commercial buildings.

1.4. Declaration of Methodological Framework

The nature of life cycle assessment is to include a wide range of inputs and outputs associated with the product being analyzed. Constraining the LCA scope is an essential part of the study. The following section describes the various information included in the framework of this LCA study in order to appropriately define goal, scope, and boundaries of the study. The LCA study follows an attributional approach as outlined in ISO 21930 Section 7.1.1.

The environmental information on the products analyzed is intended mainly for B2C communication and its prime

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purpose is to provide measurable and verifiable input for the assessment and improvements of the environmental performance of construction works. EPDs used in the B2C marketplace shall follow the provisions of ISO 14025:2006, Clause 9. Third party verified ISO 14040/44 secondary LCI data sets contribute more than 67% of total impact (either at the unit process level or in aggregate) to any of the required impact categories identified by the applicable PCR.





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1.5. Technical Data

Table 1. Technical Data

TECHNICAL DATA	VALUE	UNIT
Acoustical Tests performed in accordance with ASTM C423 and ASTM E795, in a type E400 mounting	0.5-1.0	NRC
Seismic rating	Zones A, B, C, D, E, F	n/a
Fire Rating Test Method ASTM E84	Class A	n/a
Painted or anodized metal	Flame spread: ≤ 25, Smoke ≤ 50	n/a
Film on metal		
Wood veneer on metal	Flame spread: ≤ 25, Smoke ≤ 55	n/a
CSI 09 54 00: Specialty Ceilings		

1.6. Properties of Declared Product as Delivered

All flows to and from the environment within the system boundary are normalized to a unit summarizing the function of the system. The environmental impact potentials per declared unit are the basis for comparison in an LCA. It provides a unit of analysis and comparison for all environmental impacts.

The declared unit for the study is one kg of ceiling panel.

1.7. Material Composition

The panel's core component consists of aluminum. The finishes vary between coil, powder, and wet coats.





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The coating consists of a mixture of additional materials and is applied to the surface of the panel. The various coatings available for the product consist primarily of varying percentages of chromium, carbon black, quartz, talcum, soda ash, butyl acetate, zinc, silicon, magnesium oxide, and titanium dioxide, along with other smaller amounts of additives. The coating modeled and used in the results for this EPD is the mixture with the highest environmental impacts. The recycled content of the supplied aluminum is unknown and may vary. The study uses an industry average to represent the aluminum, which includes both post consumer recycled content (PCRC) and post industrial recycled content. Only PCRC was counted as Secondary Material (SM) in Table 24 through Table 28.

Table 2. Material Composition

Component	Aluminum w/coil coat	Aluminum w/powder coat	Aluminum w/wet coat
Aluminum	96.4% <i>PCRC: 28.6%</i>	94.2% <i>PCRC: 24.3-28.6%</i>	96.8% <i>PCRC: 24.3-28.6%</i>
Finish	3.7%	5.8%	3.2%
Total*:	100%	100%	100%

*Components may not total 100% due to rounding.

1.8. Manufacturing

A detailed analysis of the Metal Ceiling Panel Product families manufacturing process was completed by the Saint-Gobain North America ESG group. A process flow diagram is attached in Appendix A and illustrates all process steps, inputs, and outputs including material, energy, emissions, and wastes.

To produce metal ceiling panels, aluminum sheets of various sizes are perforated, notched and cut to shape using turrets. The material is then sent to a secondary equipment where it is brake formed into its final shape.

Roll formed panels follow a similar process. Aluminum coils of various widths are roll formed in a post cut operation, and then packaged into cartons. The roll formed panels have many specific profile shapes but all vary in degrees of a U profile.

Once the panel is trimmed and cut to size, it is further finished with various coating options. Coating is applied as necessary according to the specification of the individual product type being manufactured. Finally, the panels are packaged for shipping.

Energy, water, and materials go into the Metal Ceiling Panel Product family process, waste and emissions are outputs from the manufacturing process.



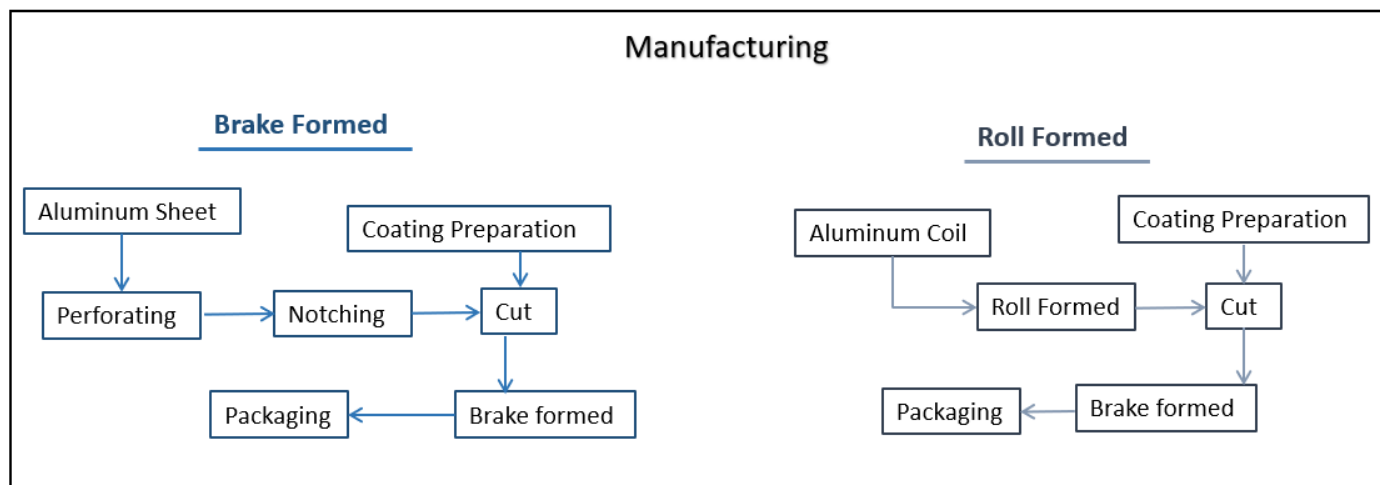


Figure 2. Manufacturing Flow Diagram

1.9. Packaging

Packaging of the final product after production is included in the life cycle assessment. The product is stacked with cardboard, Styrofoam, or wooden strips between the layers. The packages of product in cardboard sleeves are then stacked on a pallet with other finished product and wrapped in a polyester strap before final shipping. Protective corner guards help in the protection of the shipped material. The purchased amount of packaging material was provided by the Norcross facility personnel and the weight of each material per kilogram of finished product was calculated. The average weight of the packaging material was assumed to be the same for each of the product categories included in this study.

1.10. Transportation

Raw materials are transported to the manufacturing sites by standard freight truck, train, or ocean freighters. Unless otherwise noted, transport vehicles are fueled with diesel fuel.

Final products are transported on trucks throughout the United States. This study assumed an average of 800 km for the final shipment of product based on the assumption within the Product Category Rule (PCR).

1.11. Use

The use stage is excluded in the life cycle assessment.

The PCR requires products with indoor applications to report on the VOC emissions as determined in accordance with the "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers Version 1.2." All of the product families included in this study have been tested and certified in compliance with the VOC emissions standard for individual VOCs of concern and formaldehyde.

1.12. Reuse, Recycling, and Energy Recovery

No reuse, recycling, and energy recovery will be reported for this study.

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1.13. Disposal

The following chart depicts the industry consensus for end of life scenarios, per the PCR guidance. This assumption was replicated within the study. 85% of the end of life disposal is assumed to be recycled. The remaining 15% is assumed to be landfilled.

Table 3. End of Life Scenario

Name		Value	Unit
Assumptions for scenario development (description of deconstruction, collection, recovery, disposal method, and transportation)			
Collection process (specified by type)	Collected separately	0	kg
	Collected with mixed construction waste	1.00	kg
Recovery (specified by type)	Reuse	0	kg
	Recycling	0.85	kg
	Incineration	0	kg
	Incineration with energy recovery	0	kg
	Energy conversion (specify efficiency rate)	-	
Disposal (specified by type)	Product or material for final disposal	0.15	kg
Removals of biogenic carbon (excluding packaging)		0	kg CO2

2. Life Cycle Assessment Background Information

2.1. Declared Unit

The declared unit for the study is one kg of ceiling panel.

Table 4. Declared Unit

Name	Value	Unit
Declared unit	1	kilogram
Declared unit (wall, ceiling, and column panels, covers, and assemblies)	1	kilogram



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Declared thickness	0.025-0.10	inches
Density per declared unit	2712.6	kg/m ³

2.2. System Boundary

The life cycle assessment conducted for this EPD is a “cradle-to-gate with options” study. The study follows cradle to installation with end of life. The system boundary includes raw material supply and transport, manufacturing, distribution, installation, and end of life. The figure below outlines life cycle stages included in the study.

Table 5. System Boundary

Description of the System Boundary (X=included in LCA: MND=module not declared)																
Product Stage			Construction Process Stage		Use Stage							End of Life Stage				Benefits & Loads Beyond System Boundaries
Raw Material Supply	Transport	Manufacturing	Transport from the gate to the site	Assembly	Use	Maintenance	Repair	Replacement	Refurbishment	Operational Energy Use	Operational Water Use	De-construction demolition	Transport	Waste Processing	Disposal	Reuse-Recover-Recycling Potential
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
X	X	X	X	X	MND	MND	MND	MND	MND	MND	MND	X	X	X	X	MND

2.3. Estimates and Assumptions

Estimates and assumptions are required when little or no data is available. The study’s assumptions and estimates are recorded and documented in the background report.

2.4. Cut-off Criteria

Processes whose total contribution to the final result, with respect to their mass and in relation to all considered impact categories, is less than 1% can be neglected. The sum of the neglected processes may not exceed 5% by mass of the considered impact categories. For that a documented assumption is admissible.

For Hazardous Substances – as defined by the U.S. Occupational Health and Safety Act the following requirements



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apply:

- The Life Cycle Inventory (LCI) of hazardous substances will be included, if the inventory is available.
- If the LCI for a hazardous substance is not available, the substance will appear as an input in the LCI of the product, if its mass represents more than 0.1% of the product composition.
- If the LCI of a hazardous substance is approximated by modeling another substance, documentation will be provided.

This EPD is in compliance with the cut-off criteria. No known flows were deliberately excluded. Capital items for the production processes (machines, buildings, etc.) were not taken into consideration. Following the cut-off approach, the recycling at end of life has no environmental burden or credit.

2.5. Data Sources

LCA FE v10.7 software system was used for modeling the life cycle of the CertainTeed Metal Ceiling Panel. The Sphera GaBi, US LCI, and Ecoinvent v3.9 databases were used for raw materials, transportation, and energy inputs.

2.6. Data Quality

Wherever secondary data is used, the study adopts critically reviewed data for consistency, precision, and reproducibility to limit uncertainty. Since the inventory flows for the utilized databases are very often accompanied by a series of data quality ratings, a general indication of precision can be inferred. Using these ratings, the data sets used generally have medium-to-high precision. The Saint-Gobain North American ESG Department collected specific data on energy and material inputs, wastes, water use, emissions, and transportation impacts for the Norcross, GA manufacturing plant.

2.7. Period under Review

For this life cycle assessment, the Saint-Gobain North American ESG Department collected specific data on energy and material inputs, wastes, water use, emissions, and transportation impacts for the Norcross, GA manufacturing plant. The data used spanned between January 1, 2022 through December 31, 2022.

2.8. Allocation

The Norcross, GA facility is the only location that produces the Metal Ceiling Panel product line in the United States for CertainTeed Corporation. However, there are additional products produced at this location that were excluded from the study. Allocation was conducted based on the production mass data provided by the facility as a percentage of the overall production mass at each facility.

3. Life Cycle Assessment Scenarios

Table 6. Transport to the building site (A4)

NAME	VALUE	UNIT
Fuel type	Diesel	-
Liters of fuel	-	l/100km
Vehicle type	Standard Freight Trailer	



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Transport distance	800	km
Capacity utilization (including empty runs, mass based)	85	%
Gross density of products transported	2712.6	kg/m ³
Weight of products transported (if gross density not reported)		kg
Volume of products transported (if gross density not reported)		m ³
Capacity utilization volume factor (factor: =1 or <1 or ≥ 1 for compressed or nested packaging products)	<1	-

Table 7. Installation into the building (A5)

NAME	VALUE	UNIT
Ancillary materials	0	kg
Net freshwater consumption specified by water source and fate (amount evaporated, amount disposed to sewer)	0	m ³
Other resources	0	kg
Electricity consumption	0	kWh
Other energy carriers	0	MJ
Product loss per declared unit	7.00E-02	kg
Waste materials at the construction site before waste processing, generated by product installation	6.99E-05	kg
Output materials resulting from on-site waste processing (specified by route; e.g. for recycling, energy recovery and/or disposal)	0	kg
Biogenic carbon contained in packaging	0	kg CO ₂
Direct emissions to ambient air, soil and water	0	kg
VOC content	0	µg/m ³

Table 8. Reference Service Life

NAME	VALUE	UNIT
RSL	-	years
Declared product properties (at the gate) and finishes, etc.	-	Units as appropriate
Design application parameters (if instructed by the manufacturer), including references to the appropriate practices and application codes)	-	Units as appropriate
An assumed quality of work, when installed in accordance with the manufacturer's instructions	-	Units as appropriate
Outdoor environment, (if relevant for outdoor applications), e.g. weathering, pollutants, UV and wind exposure, building orientation, shading, temperature	-	Units as appropriate
Indoor environment, (if relevant for indoor applications), e.g. temperature, moisture, chemical exposure)	-	Units as appropriate
Use conditions, e.g. frequency of use, mechanical exposure.	-	Units as appropriate



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Maintenance, e.g. required frequency, type and quality of replacement components	-	Units as appropriate
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Table 9. Maintenance (B2)

NAME	VALUE	UNIT
Maintenance process information (cite source in report)	-	-
Maintenance cycle	-	Number/ RSL
Maintenance cycle	-	Number/ ESL
Net freshwater consumption specified by water source and fate (amount evaporated, amount disposed to sewer)	-	m ³
Ancillary materials specified by type (e.g. cleaning agent)	-	kg
Other resources	-	kg
Energy input, specified by activity, type and amount	-	kWh
Other energy carriers specified by type	-	kWh
Power output of equipment	-	kW
Waste materials from maintenance (specify materials)	-	kg
Direct emissions to ambient air, soil and water	-	kg
Further assumptions for scenario development (e.g. frequency and time period of use, number of occupants);	-	-

Table 10. Repair (B3)

NAME	VALUE	UNIT
Repair process information (cite source in report)	-	None required
Inspection process information (cite source in report)	-	None required
Repair cycle	-	Number/ RSL
Repair cycle	-	Number/ ESL
Net freshwater consumption specified by water source and fate (amount evaporated, amount disposed to sewer)	-	m ³
Ancillary materials specified by type (e.g. cleaning agent)	-	kg
Energy input, specified by activity, type and amount	-	kWh
Waste materials from repair (specify materials)	-	kg
Direct emissions to ambient air, soil and water	-	kg
Further assumptions for scenario development (e.g. frequency and time period of use, number of occupants);	-	N/A

Table 11. Replacement (B4)

NAME	VALUE	UNIT
Replacement cycle	-	Number/ RSL



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Replacement cycle	-	Number/ ESL
Energy input, specified by activity, type and amount	-	kWh
Net freshwater consumption specified by water source and fate (amount evaporated, amount disposed to sewer)	-	m ³
Ancillary materials specified by type (e.g. cleaning agent)	-	kg
Replacement of worn parts, specify parts/materials	-	kg
Direct emissions to ambient air, soil and water	-	kg
Further assumptions for scenario development, e.g. frequency and time period of use	-	As appropriate

Table 12. Refurbishment (B5)

NAME	VALUE	UNIT
Refurbishment process description (cite source in report)	-	-
Replacement cycle	-	Number/ RSL
Replacement cycle	-	Number/ ESL
Energy input, specified by activity, type and amount	-	kWh
Net freshwater consumption specified by water source and fate (amount evaporated, amount disposed to sewer)	-	m ³
Material input for refurbishment, including ancillary materials specified by type (e.g. cleaning agent)	-	kg
Waste material(s), specified by material	-	kg
Direct emissions to ambient air, soil and water	-	kg
Further assumptions for scenario development (e.g. frequency and time period of use, number of occupants);	-	-

Table 13. Operational energy use (B6) and Operational water use (B7)

NAME	VALUE	UNIT
Net freshwater consumption specified by water source and fate (amount evaporated, amount disposed to sewer)	-	m ³
Ancillary materials	-	kg
Energy input, specified by activity, type and amount	-	kWh
Equipment power output	-	kW
Characteristic performance (e.g. energy efficiency, variation of performance with capacity utilization)	-	Units as appropriate
Direct emissions to ambient air, soil and water	-	kg
Further assumptions for scenario development (e.g. frequency and time period of use, number of occupants);	-	As appropriate

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Table 14. End of life (C1-C4)

NAME		VALUE	UNIT	MODE	DISTANCE (KM)
Assumptions for scenario development (description of deconstruction, collection, recovery, disposal method and transportation)		-	-	-	-
Collection process (specified by type)	Collected separately	0	kg	-	-
	Collected with mixed construction waste	1.0	kg	Truck	200
Recovery (specified by type)	Reuse	0	kg	-	-
	Recycling	0.85	kg	Truck	200
	Landfill	0.15	kg	Truck	200
	Incineration	0	kg	-	-
	Incineration with energy recovery	0	kg	-	-
	Energy conversion efficiency rate	0		-	-
Disposal (specified by type)	Product or material for final deposition	0	kg	-	-
Removals of biogenic carbon (excluding packaging)		0	kg CO ₂	-	-

Table 15. Reuse, recovery and/or recycling potentials (D), relevant scenario information

NAME	VALUE	UNIT
Net energy benefit from energy recovery from waste treatment declared as exported energy in C3 (R>0.6)	-	MJ
Net energy benefit from thermal energy due to treatment of waste declared as exported energy in C4 (R<0.6)	-	MJ
Net energy benefit from material flow declared in C3 for energy recovery	-	MJ
Process and conversion efficiencies	-	
Further assumptions for scenario development (e.g. further processing technologies, assumptions on correction factors);	-	

4. Life Cycle Assessment Results

Table 16. Description of the system boundary modules

PRODUCT STAGE			CONSTRUCTION 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



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	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
EPD Type	X	X	X	X	X	MND	MND	MND	MND	MND	MND	MND	X	X	X	X	MND

4.1. Life Cycle Impact Assessment Results

Table 17. North American Impact Assessment Results- Plank and Tile, Linear w/coil

TRACI v2.1	A1-A3	A4	A5	C1	C2	C3	C4
GWP 100 [kg CO ₂ eq]	6.41E+00	7.42E-02	2.35E-02	0	1.85E-02	0	1.66E-01
ODP [kg CFC-11 eq]	1.39E-08	2.81E-12	7.30E-17	0	7.02E-13	0	5.14E-16
AP [kg SO ₂ eq]	4.88E-02	4.46E-04	1.55E-04	0	1.11E-04	0	1.09E-03
EP [kg N eq]	1.38E-03	2.47E-05	5.53E-05	0	6.17E-06	0	3.89E-04
POCP [kg O ₃ eq]	2.34E-01	1.23E-02	4.01E-04	0	3.07E-03	0	2.82E-03
ADP _{fossil} [MJ, LHV]	9.32E+00	1.31E-01	2.99E-03	0	3.28E-02	0	2.11E-02

Table 18. North American Impact Assessment Results- Plank and Tile, Linear, Linear-Exterior w/powder

TRACI v2.1	A1-A3	A4	A5	C1	C2	C3	C4
GWP 100 [kg CO ₂ eq]	5.52E+00	7.42E-02	2.35E-02	0	1.85E-02	0	1.66E-01
ODP [kg CFC-11 eq]	3.18E-08	2.81E-12	7.30E-17	0	7.02E-13	0	5.14E-16
AP [kg SO ₂ eq]	1.79E-02	4.46E-04	1.55E-04	0	1.11E-04	0	1.09E-03
EP [kg N eq]	1.94E-03	2.47E-05	5.53E-05	0	6.17E-06	0	3.89E-04
POCP [kg O ₃ eq]	1.97E-01	1.23E-02	4.01E-04	0	3.07E-03	0	2.82E-03
ADP _{fossil} [MJ, LHV]	6.76E+00	1.31E-01	2.99E-03	0	3.28E-02	0	2.11E-02

Table 19. North American Impact Assessment Results- Plank and Tile, Linear, Linear-Exterior w/wet coat

TRACI v2.1	A1-A3	A4	A5	C1	C2	C3	C4
GWP 100 [kg CO ₂ eq]	5.53E+00	7.42E-02	2.35E-02	0	1.85E-02	0	1.66E-01
ODP [kg CFC-11 eq]	1.54E-08	2.81E-12	7.30E-17	0	7.02E-13	0	5.14E-16
AP [kg SO ₂ eq]	1.66E-02	4.46E-04	1.55E-04	0	1.11E-04	0	1.09E-03
EP [kg N eq]	1.28E-03	2.47E-05	5.53E-05	0	6.17E-06	0	3.89E-04
POCP [kg O ₃ eq]	1.94E-01	1.23E-02	4.01E-04	0	3.07E-03	0	2.82E-03



ENVIRONMENTAL PRODUCT DECLARATION



Plank & Tile, Linear, Linear-Exterior, Linear Plank, Linear Plank-Exterior, Cell, and Beams & Baffles

According to ISO 14025
and ISO 21930:2017

ADP _{fossil} [MJ, LHV]	6.90E+00	1.31E-01	2.99E-03	0	3.28E-02	0	2.11E-02
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Table 20. North American Impact Assessment Results- Linear Plank, Linear Plank - Ext, Cell w/powder

TRACI v2.1	A1-A3	A4	A5	C1	C2	C3	C4
GWP 100 [kg CO ₂ eq]	5.39E+00	7.42E-02	2.35E-02	0	1.85E-02	0	1.66E-01
ODP [kg CFC-11 eq]	2.54E-08	2.81E-12	7.30E-17	0	7.02E-13	0	5.14E-16
AP [kg SO ₂ eq]	1.71E-02	4.46E-04	1.55E-04	0	1.11E-04	0	1.09E-03
EP [kg N eq]	1.53E-03	2.47E-05	5.53E-05	0	6.17E-06	0	3.89E-04
POCP [kg O ₃ eq]	1.88E-01	1.23E-02	4.01E-04	0	3.07E-03	0	2.82E-03
ADP _{fossil} [MJ, LHV]	6.69E+00	1.31E-01	2.99E-03	0	3.28E-02	0	2.11E-02

Table 21. North American Impact Assessment Results- Linear Plank, Linear Plank - Ext, Cell w/wet coat

TRACI v2.1	A1-A3	A4	A5	C1	C2	C3	C4
GWP 100 [kg CO ₂ eq]	5.61E+00	7.42E-02	2.35E-02	0	1.85E-02	0	1.66E-01
ODP [kg CFC-11 eq]	1.77E-08	2.81E-12	7.30E-17	0	7.02E-13	0	5.14E-16
AP [kg SO ₂ eq]	1.71E-02	4.46E-04	1.55E-04	0	1.11E-04	0	1.09E-03
EP [kg N eq]	1.47E-03	2.47E-05	5.53E-05	0	6.17E-06	0	3.89E-04
POCP [kg O ₃ eq]	1.99E-01	1.23E-02	4.01E-04	0	3.07E-03	0	2.82E-03
ADP _{fossil} [MJ, LHV]	6.96E+00	1.31E-01	2.99E-03	0	3.28E-02	0	2.11E-02

Table 22. North American Impact Assessment Results- Beams and Baffles w/wet coat

TRACI v2.1	A1-A3	A4	A5	C1	C2	C3	C4
GWP 100 [kg CO ₂ eq]	6.70E+00	7.42E-02	2.35E-02	0	1.85E-02	0	1.66E-01
ODP [kg CFC-11 eq]	3.52E-08	2.81E-12	7.30E-17	0	7.02E-13	0	5.14E-16
AP [kg SO ₂ eq]	2.31E-02	4.46E-04	1.55E-04	0	1.11E-04	0	1.09E-03
EP [kg N eq]	2.23E-03	2.47E-05	5.53E-05	0	6.17E-06	0	3.89E-04
POCP [kg O ₃ eq]	2.44E-01	1.23E-02	4.01E-04	0	3.07E-03	0	2.82E-03
ADP _{fossil} [MJ, LHV]	7.74E+00	1.31E-01	2.99E-03	0	3.28E-02	0	2.11E-02

Table 23. North American Impact Assessment Results- Beams and Baffles w/powder coat

TRACI v2.1	A1-A3	A4	A5	C1	C2	C3	C4
GWP 100 [kg CO ₂ eq]	6.47E+00	7.42E-02	2.35E-02	0	1.85E-02	0	1.66E-01
ODP [kg CFC-11 eq]	1.84E-08	2.81E-12	7.30E-17	0	7.02E-13	0	5.14E-16



ENVIRONMENTAL PRODUCT DECLARATION



Plank & Tile, Linear, Linear-Exterior, Linear Plank, Linear Plank-Exterior, Cell, and Beams & Baffles

According to ISO 14025
and ISO 21930:2017

AP [kg SO ₂ eq]	2.10E-02	4.46E-04	1.55E-04	0	1.11E-04	0	1.09E-03
EP [kg N eq]	1.52E-03	2.47E-05	5.53E-05	0	6.17E-06	0	3.89E-04
POCP [kg O ₃ eq]	2.31E-01	1.23E-02	4.01E-04	0	3.07E-03	0	2.82E-03
ADP _{fossil} [MJ, LHV]	7.59E+00	1.31E-01	2.99E-03	0	3.28E-02	0	2.11E-02

4.2. Life Cycle Inventory Results

Table 24. Resource Use- Plank and Tile, Linear w/coil

PARAMETER	A1-A3	A4	A5	C1	C2	C3	C4
RPR _E [MJ, LHV]	2.10E+01	0.00E+00	2.78E-03	-	0	0	1.96E-02
RPR _M [MJ, LHV]	1.44E-02	0.00E+00	0.00E+00	0	0	0	0
RPR _T [MJ, LHV]	2.10E+01	0.00E+00	2.78E-03	-	0	0	1.96E-02
NRPR _E [MJ, LHV]	7.43E+01	9.55E-01	2.38E-02	-	2.39E-01	0	1.67E-01
NRPR _M [MJ, LHV]	4.80E+01	0.00E+00	0.00E+00	-	0	0	0
NRPR _T [MJ, LHV]	7.43E+01	9.55E-01	2.38E-02	-	2.39E-01	0	1.67E-01
SM [kg] ¹	2.34E-01	0	0	0	0	0	0
RSF [MJ, LHV]	0	0	0	0	0	0	0
NRSF [MJ, LHV]	0	0	0	0	0	0	0
RE [MJ, LHV]	0	0	0	0	0	0	0
FW [m ³]	6.90E-02	0	6.42E-06	0	0	0	4.52E-05

Table 25. Resource Use- Plank and Tile, Linear, Linear-Exterior, Linear Plank, Linear Plank-Ext., Cell w/powder

PARAMETER	A1-A3	A4	A5	C1	C2	C3	C4
RPR _E [MJ, LHV]	2.06E+01	0.00E+00	2.78E-03	-	0	0	1.96E-02
RPR _M [MJ, LHV]	1.44E-02	0.00E+00	0.00E+00	0	0	0	0
RPR _T [MJ, LHV]	2.06E+01	0.00E+00	2.78E-03	-	0	0	1.96E-02
NRPR _E [MJ, LHV]	7.34E+01	9.55E-01	2.38E-02	-	2.39E-01	0	1.67E-01
NRPR _M [MJ, LHV]	4.71E+01	0.00E+00	0.00E+00	-	0	0	0
NRPR _T [MJ, LHV]	7.34E+01	9.55E-01	2.38E-02	-	2.39E-01	0	1.67E-01
SM [kg] ¹	2.29E-01	0	0	0	0	0	0
RSF [MJ, LHV]	0	0	0	0	0	0	0
NRSF [MJ, LHV]	0	0	0	0	0	0	0
RE [MJ, LHV]	0	0	0	0	0	0	0
FW [m ³]	6.35E-02	0	6.42E-06	0	0	0	4.52E-05

Table 26. Resource Use- Plank and Tile, Linear, Linear-Exterior, Linear Plank, Linear Plank-Ext., Cell w/wet coat



ENVIRONMENTAL PRODUCT DECLARATION



Plank & Tile, Linear, Linear-Exterior, Linear Plank, Linear Plank-Exterior, Cell, and Beams & Baffles

According to ISO 14025
and ISO 21930:2017

PARAMETER	A1-A3	A4	A5	C1	C2	C3	C4
RPR _E [MJ, LHV]	2.11E+01	0.00E+00	2.78E-03	-	0	0	1.96E-02
RPR _M [MJ, LHV]	1.44E-02	0.00E+00	0.00E+00	0	0	0	0
RPR _T [MJ, LHV]	2.11E+01	0.00E+00	2.78E-03	-	0	0	1.96E-02
NRPR _E [MJ, LHV]	7.47E+01	9.55E-01	2.38E-02	-	2.39E-01	0	1.67E-01
NRPR _M [MJ, LHV]	4.84E+01	0.00E+00	0.00E+00	-	0	0	0
NRPR _T [MJ, LHV]	7.47E+01	9.55E-01	2.38E-02	-	2.39E-01	0	1.67E-01
SM [kg] ¹	2.35E-01	0	0	0	0	0	0
RSF [MJ, LHV]	0	0	0	0	0	0	0
NRSF [MJ, LHV]	0	0	0	0	0	0	0
RE [MJ, LHV]	0	0	0	0	0	0	0
FW [m ³]	6.29E-02	0	6.42E-06	0	0	0	4.52E-05

Table 27. Resource Use- Beams & Baffles w/powder coat

PARAMETER	A1-A3	A4	A5	C1	C2	C3	C4
RPR _E [MJ, LHV]	2.68E+01	0.00E+00	2.78E-03	-	0	0	1.96E-02
RPR _M [MJ, LHV]	1.44E-02	0.00E+00	0.00E+00	0	0	0	0
RPR _T [MJ, LHV]	2.68E+01	0.00E+00	2.78E-03	-	0	0	1.96E-02
NRPR _E [MJ, LHV]	5.86E+01	9.55E-01	2.38E-02	-	2.39E-01	0	1.67E-01
NRPR _M [MJ, LHV]	2.75E-03	0.00E+00	0.00E+00	-	0	0	0
NRPR _T [MJ, LHV]	5.86E+01	9.55E-01	2.38E-02	-	2.39E-01	0	1.67E-01
SM [kg] ¹	2.49E-01	0	0	0	0	0	0
RSF [MJ, LHV]	0	0	0	0	0	0	0
NRSF [MJ, LHV]	0	0	0	0	0	0	0
RE [MJ, LHV]	0	0	0	0	0	0	0
FW [m ³]	8.39E-02	0	6.42E-06	0	0	0	4.52E-05

Table 28. Resource Use- Beams & Baffles w/wet coat

PARAMETER	A1-A3	A4	A5	C1	C2	C3	C4
RPR _E [MJ, LHV]	2.75E+01	0.00E+00	2.78E-03	-	0	0	1.96E-02
RPR _M [MJ, LHV]	1.44E-02	0.00E+00	0.00E+00	0	0	0	0
RPR _T [MJ, LHV]	2.75E+01	0.00E+00	2.78E-03	-	0	0	1.96E-02
NRPR _E [MJ, LHV]	5.96E+01	9.55E-01	2.38E-02	-	2.39E-01	0	1.67E-01
NRPR _M [MJ, LHV]	2.75E-03	0.00E+00	0.00E+00	-	0	0	0
NRPR _T [MJ, LHV]	5.96E+01	9.55E-01	2.38E-02	-	2.39E-01	0	1.67E-01
SM [kg] ¹	2.56E-01	0	0	0	0	0	0



ENVIRONMENTAL PRODUCT DECLARATION



Plank & Tile, Linear, Linear-Exterior, Linear Plank, Linear Plank-Exterior, Cell, and Beams & Baffles

According to ISO 14025
and ISO 21930:2017

RSF [MJ, LHV]	0	0	0	0	0	0	0
NRSF [MJ, LHV]	0	0	0	0	0	0	0
RE [MJ, LHV]	0	0	0	0	0	0	0
FW [m³]	1.22E-01	0	6.42E-06	0	0	0	4.52E-05

Table 29. Output Flows and Waste Categories- Plank and Tile, Linear w/coil

PARAMETER	A1-A3	A4	A5	C1	C2	C3	C4
HWD [kg]	1.09E-07	0.00E+00	5.93E-13	0	0	0	4.17E-12
NHWD [kg]	1.44E+00	0.00E+00	6.17E-02	0	0	0	4.34E-01
HLRW [kg] or [m³]	4.20E-06	0.00E+00	2.94E-10	0	0	0	2.07E-09
ILLRW [kg] or [m³]	3.51E-03	0.00E+00	2.63E-07	0	0	0	1.85E-06
CRU [kg]	0	0	0	0	0	0	0
MR [kg]	6.53E-01	0	0	0	0	8.50E-01	0
MER [kg]	0	0	0	0	0	0	0
EE [MJ, LHV]	0	0	0	0	0	0	0

Table 30. Output Flows and Waste Categories- Plank and Tile, Linear, Linear-Exterior, Linear Plank, Linear Plank - Ext, Cell w/ powder coat

PARAMETER	A1-A3	A4	A5	C1	C2	C3	C4
HWD [kg]	1.07E-07	0.00E+00	5.93E-13	0	0	0	4.17E-12
NHWD [kg]	1.42E+00	0.00E+00	6.17E-02	0	0	0	4.34E-01
HLRW [kg] or [m³]	4.18E-06	0.00E+00	2.94E-10	0	0	0	2.07E-09
ILLRW [kg] or [m³]	3.49E-03	0.00E+00	2.63E-07	0	0	0	1.85E-06
CRU [kg]	0	0	0	0	0	0	0
MR [kg]	6.53E-01	0	0	0	0	8.50E-01	0
MER [kg]	0	0	0	0	0	0	0
EE [MJ, LHV]	0	0	0	0	0	0	0

Table 31. Output Flows and Waste Categories- Plank and Tile, Linear, Linear-Exterior, Linear Plank, Linear Plank - Ext, Cell w/ wet coat

PARAMETER	A1-A3	A4	A5	C1	C2	C3	C4
HWD [kg]	1.10E-07	0.00E+00	5.93E-13	0	0	0	4.17E-12
NHWD [kg]	1.44E+00	0.00E+00	6.17E-02	0	0	0	4.34E-01
HLRW [kg] or [m³]	4.21E-06	0.00E+00	2.94E-10	0	0	0	2.07E-09
ILLRW [kg] or [m³]	3.51E-03	0.00E+00	2.63E-07	0	0	0	1.85E-06
CRU [kg]	0	0	0	0	0	0	0
MR [kg]	6.53E-01	0	0	0	0	8.50E-01	0
MER [kg]	0	0	0	0	0	0	0



ENVIRONMENTAL PRODUCT DECLARATION



Plank & Tile, Linear, Linear-Exterior, Linear Plank, Linear Plank-Exterior, Cell, and Beams & Baffles

According to ISO 14025
and ISO 21930:2017

EE [MJ, LHV]	0	0	0	0	0	0	0
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Table 32. Output Flows and Waste Categories- Beams and Baffles w/powder

PARAMETER	A1-A3	A4	A5	C1	C2	C3	C4
HWD [kg]	3.94E-07	0.00E+00	5.93E-13	0	0	0	4.17E-12
NHWD [kg]	1.78E+00	0.00E+00	6.17E-02	0	0	0	4.34E-01
HLRW [kg] or [m ³]	4.24E-06	0.00E+00	2.94E-10	0	0	0	2.07E-09
ILLRW [kg] or [m ³]	3.54E-03	0.00E+00	2.63E-07	0	0	0	1.85E-06
CRU [kg]	0	0	0	0	0	0	0
MR [kg]	6.53E-01	0	0	0	0	8.50E-01	0
MER [kg]	0	0	0	0	0	0	0
EE [MJ, LHV]	0	0	0	0	0	0	0

Table 33. Output Flows and Waste Categories- Beams and Baffles w/wet

PARAMETER	A1-A3	A4	A5	C1	C2	C3	C4
HWD [kg]	4.06E-07	0.00E+00	5.93E-13	0	0	0	4.17E-12
NHWD [kg]	1.82E+00	0.00E+00	6.17E-02	0	0	0	4.34E-01
HLRW [kg] or [m ³]	4.28E-06	0.00E+00	2.94E-10	0	0	0	2.07E-09
ILLRW [kg] or [m ³]	3.57E-03	0.00E+00	2.63E-07	0	0	0	1.85E-06
CRU [kg]	0	0	0	0	0	0	0
MR [kg]	6.53E-01	0	0	0	0	8.50E-01	0
MER [kg]	0	0	0	0	0	0	0
EE [MJ, LHV]	0	0	0	0	0	0	0

¹ Secondary Material indicator includes only post-consumer recycled content

5. LCA Interpretation

Based on the results from the life cycle assessment, the life cycle impacts are strongly driven by the raw materials and manufacturing processes. These six 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. LCIA results are relative expressions and do not predict impacts on category endpoints, the exceeding of thresholds, safety margins or risks. Biogenic carbon emissions and removals are not included, as they are irrelevant to the product and only included in packaging. In addition, the GWP indicator excludes biogenic.

6. Additional Environmental Information

6.1. Environment and Health During Manufacturing



ENVIRONMENTAL PRODUCT DECLARATION



Plank & Tile, Linear, Linear-Exterior, Linear Plank, Linear Plank-Exterior, Cell, and Beams & Baffles

According to ISO 14025
and ISO 21930:2017

CertainTeed has well-established Environmental, Health, and Safety (EHS) and product stewardship programs which help to enforce proper evaluation and monitoring of chemicals that are chosen to manufacture products. These programs ensure that all environmental and OSHA requirements are met or exceeded to ensure the health and safety of all employees and contractors. In addition, this plant is zero discharge to Publicly Owned Treatment Works (POTWs). The water system utilizes a settling pond on-site and discharges the remaining water to a spray field rather than a sewer system. There are no substances required to be reported as hazardous are associated with the production of this product.

6.2. Environment and Health During Installation

Installation has minimal impacts due to the modular nature of ceiling panels and minimal energy required for installation. The assumption is that ceiling panels require no cleaning or maintenance so use phase impacts are zero.

6.3. Extraordinary Effects

Fire

ASTM E1264 – Class A

ASTM E84 – Flame spread of 25 or less, smoke developed of 50 or less

Water

This product is subject to water damage. No water or water vapor from sources including, but not limited to, condensation, leaking pipes and/or ducts, or steam must come in contact with the ceiling panels.

Mechanical Destruction

This product is intended for commercial applications. Use and Practice information can be found in “Acoustical Ceilings: Use and Practice” published by Ceilings & Interior Systems Construction Association (CISCA). The product should be installed according to CertainTeed Ceilings installation instructions.

6.4. Renewable Energy

Saint-Gobain is committed to achieving Carbon Neutrality by 2050. In January 2021, Saint-Gobain North America started receiving renewable energy certificates (RECs) from a 12-year virtual power purchase agreement (vPPA) with the Blooming Grove Wind Farm in McLean County, Illinois. Each year within the agreement, the company receives and retires these RECs, effectively reduced approximately 33% of CO2 emissions from electricity usage in 2021 in the United States and Canada. Updated results reflecting the RECs in the electricity input in manufacturing (A3) are shown below.

Table 22. North American Impact Assessment Results with RECs included- Plank and Tile, Linear w/coil

TRACI v2.1	A1-A3	A4	A5	C1	C2	C3	C4
GWP 100 [kg CO ₂ eq]	9.66E+00	7.42E-02	2.35E-02	0	1.85E-02	0	1.66E-01
ODP [kg CFC-11 eq]	3.35E-07	2.81E-12	7.30E-17	0	7.02E-13	0	5.14E-16
AP [kg SO ₂ eq]	7.63E-02	4.46E-04	1.55E-04	0	1.11E-04	0	1.09E-03
EP [kg N eq]	2.34E-02	2.47E-05	5.53E-05	0	6.17E-06	0	3.89E-04
POCP [kg O ₃ eq]	5.85E-01	1.23E-02	4.01E-04	0	3.07E-03	0	2.82E-03



ENVIRONMENTAL PRODUCT DECLARATION



Plank & Tile, Linear, Linear-Exterior, Linear Plank, Linear Plank-Exterior, Cell, and Beams & Baffles

According to ISO 14025
and ISO 21930:2017

ADP _{fossil} [MJ, LHV]	8.68E+00	1.31E-01	2.99E-03	0	3.28E-02	0	2.11E-02
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Table 23. North American Impact Assessment Results with RECs included- Plank and Tile, Linear, Linear-Exterior w/powder

TRACI v2.1	A1-A3	A4	A5	C1	C2	C3	C4
GWP 100 [kg CO ₂ eq]	8.69E+00	7.42E-02	2.35E-02	0	1.85E-02	0	1.66E-01
ODP [kg CFC-11 eq]	3.46E-07	2.81E-12	7.30E-17	0	7.02E-13	0	5.14E-16
AP [kg SO ₂ eq]	4.47E-02	4.46E-04	1.55E-04	0	1.11E-04	0	1.09E-03
EP [kg N eq]	2.35E-02	2.47E-05	5.53E-05	0	6.17E-06	0	3.89E-04
POCP [kg O ₃ eq]	5.41E-01	1.23E-02	4.01E-04	0	3.07E-03	0	2.82E-03
ADP _{fossil} [MJ, LHV]	6.12E+00	1.31E-01	2.99E-03	0	3.28E-02	0	2.11E-02

Table 24. North American Impact Assessment Results with RECs included- Plank and Tile, Linear, Linear-Exterior w/wet coat

TRACI v2.1	A1-A3	A4	A5	C1	C2	C3	C4
GWP 100 [kg CO ₂ eq]	8.80E+00	7.42E-02	2.35E-02	0	1.85E-02	0	1.66E-01
ODP [kg CFC-11 eq]	3.38E-07	2.81E-12	7.30E-17	0	7.02E-13	0	5.14E-16
AP [kg SO ₂ eq]	4.43E-02	4.46E-04	1.55E-04	0	1.11E-04	0	1.09E-03
EP [kg N eq]	2.35E-02	2.47E-05	5.53E-05	0	6.17E-06	0	3.89E-04
POCP [kg O ₃ eq]	5.48E-01	1.23E-02	4.01E-04	0	3.07E-03	0	2.82E-03
ADP _{fossil} [MJ, LHV]	6.26E+00	1.31E-01	2.99E-03	0	3.28E-02	0	2.11E-02

Table 25. North American Impact Assessment Results with RECs included- Linear Plank, Linear Plank - Ext, Cell w/powder

TRACI v2.1	A1-A3	A4	A5	C1	C2	C3	C4
GWP 100 [kg CO ₂ eq]	8.67E+00	7.42E-02	2.35E-02	0	1.85E-02	0	1.66E-01
ODP [kg CFC-11 eq]	3.44E-07	2.81E-12	7.30E-17	0	7.02E-13	0	5.14E-16
AP [kg SO ₂ eq]	4.47E-02	4.46E-04	1.55E-04	0	1.11E-04	0	1.09E-03
EP [kg N eq]	2.35E-02	2.47E-05	5.53E-05	0	6.17E-06	0	3.89E-04
POCP [kg O ₃ eq]	5.40E-01	1.23E-02	4.01E-04	0	3.07E-03	0	2.82E-03
ADP _{fossil} [MJ, LHV]	6.11E+00	1.31E-01	2.99E-03	0	3.28E-02	0	2.11E-02

Table 26. North American Impact Assessment Results with RECs included- Linear Plank, Linear Plank - Ext, Cell w/wet coat

TRACI v2.1	A1-A3	A4	A5	C1	C2	C3	C4
GWP 100 [kg CO ₂ eq]	8.79E+00	7.42E-02	2.35E-02	0	1.85E-02	0	1.66E-01
ODP [kg CFC-11 eq]	3.37E-07	2.81E-12	7.30E-17	0	7.02E-13	0	5.14E-16
AP [kg SO ₂ eq]	4.42E-02	4.46E-04	1.55E-04	0	1.11E-04	0	1.09E-03
EP [kg N eq]	2.34E-02	2.47E-05	5.53E-05	0	6.17E-06	0	3.89E-04
POCP [kg O ₃ eq]	5.47E-01	1.23E-02	4.01E-04	0	3.07E-03	0	2.82E-03



ENVIRONMENTAL PRODUCT DECLARATION



Plank & Tile, Linear, Linear-Exterior, Linear Plank, Linear Plank-Exterior, Cell, and Beams & Baffles

According to ISO 14025
and ISO 21930:2017

ADP _{fossil} [MJ, LHV]	6.25E+00	1.31E-01	2.99E-03	0	3.28E-02	0	2.11E-02
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Table 27. North American Impact Assessment Results with RECs included- Beams and Baffles w/wet coat

TRACI v2.1	A1-A3	A4	A5	C1	C2	C3	C4
GWP 100 [kg CO ₂ eq]	8.61E+00	7.42E-02	2.35E-02	0	1.85E-02	0	1.66E-01
ODP [kg CFC-11 eq]	3.43E-07	2.81E-12	7.30E-17	0	7.02E-13	0	5.14E-16
AP [kg SO ₂ eq]	4.42E-02	4.46E-04	1.55E-04	0	1.11E-04	0	1.09E-03
EP [kg N eq]	2.33E-02	2.47E-05	5.53E-05	0	6.17E-06	0	3.89E-04
POCP [kg O ₃ eq]	5.35E-01	1.23E-02	4.01E-04	0	3.07E-03	0	2.82E-03
ADP _{fossil} [MJ, LHV]	6.08E+00	1.31E-01	2.99E-03	0	3.28E-02	0	2.11E-02

Table 28. North American Impact Assessment Results with RECs included- Beams and Baffles w/powder coat

TRACI v2.1	A1-A3	A4	A5	C1	C2	C3	C4
GWP 100 [kg CO ₂ eq]	8.73E+00	7.42E-02	2.35E-02	0	1.85E-02	0	1.66E-01
ODP [kg CFC-11 eq]	3.36E-07	2.81E-12	7.30E-17	0	7.02E-13	0	5.14E-16
AP [kg SO ₂ eq]	4.38E-02	4.46E-04	1.55E-04	0	1.11E-04	0	1.09E-03
EP [kg N eq]	2.32E-02	2.47E-05	5.53E-05	0	6.17E-06	0	3.89E-04
POCP [kg O ₃ eq]	5.43E-01	1.23E-02	4.01E-04	0	3.07E-03	0	2.82E-03
ADP _{fossil} [MJ, LHV]	6.23E+00	1.31E-01	2.99E-03	0	3.28E-02	0	2.11E-02

7. Supporting Documentation

The LCA reports the life cycle inventory and environmental impacts relevant to CertainTeed Ceiling Panels. The life cycle methods used for this study were consistent with ISO 14040 and 14044. This project is fulfilling the reporting requirements in Section 5 of ISO 14044 and Product Category Rules Guidance for Building-Related Products and Services UL® Environments (2020) Part B: Metal Ceiling Panel EPD Requirements.

8. References

Product Category Rules for Building-Related Product and Services: Part A – Life Cycle Assessment Calculation Rules and Report Requirements, Version 3.2. December 2018. UL Environment.

UL Environment. Product Category Rule Guidance for Building-Related Products and Services Part B: Metal Ceiling and Interior Wall Panel System EPD Requirements, Version 1.0 2020. UL Environment. CSI 30161602 Ceiling panels

UL Environment. Environmental Product Declaration: Ceilings & Interior Systems Construction Association Aluminum Specialty Products. 2020. UL Environment.

ISO 14025: 2006 Series – Environmental Management-Life Cycle Assessment

ENVIRONMENTAL PRODUCT DECLARATION



Plank & Tile, Linear, Linear-Exterior, Linear Plank, Linear Plank-Exterior, Cell, and Beams & Baffles

According to ISO 14025
and ISO 21930:2017

ISO 14040: 2006 Series – Environmental Management-Life Cycle Assessment

ISO 14044: 2006 Series – Environmental Management-Life Cycle Assessment

ISO 21930 – Sustainability in building construction – Environmental declaration of building products

GaBi Databases. <https://gabi.sphera.com/america/>

US LCI Database. <https://www.nrel.gov/lci/>

Ecoinvent v3.8 Database. <http://ecoinvent.org/>

CertainTeed Ceilings and Walls Website. <https://www.certainteed.com/ceilings-and-walls/>

