# ENVIRONMENTAL PRODUCT DECLARATION

IN ACCORDANCE WITH ISO 14025:2006 AND ISO 21930:2017

SmartEPD-2026-137-0951-01.1

## Decoustics 2” Clean-Air Claro



| Date of Issue: | Expiration: | Last updated: |
|---|---|---|
| Jun 23, 2026 | Jun 23, 2031 | Oct 26, 2026 |

Refer to the EPD Library at **www.smartepd.com** for the latest EPD listing information

# General Information



## CertainTeed Saint-Gobain

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certainteed.com

| | |
|---|---|
| **Product Name:** | Decoustics 2” Clean-Air Claro |
| **Declared Unit:** | 0.093 m2 |
| **Declaration Number:** | SmartEPD-2026-137-0951-01.1 |
| **Date of Issue:** | June 23, 2026 |
| **Expiration:** | June 23, 2031 |
| **Last updated:** | October 26, 2026 |
| **EPD Scope:** | Cradle to gate with other options<br>A1 - A3, A4, A5, C1 - C4 |
| **Market(s) of Applicability:** | North America |

# General Organization Information

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 and vinyl siding. CertainTeed respects the environment through the responsible development of sustainable building products and systems. Architects, contractors, and manufacturers continue to look for ways to reduce our industry’s impact on the environment while meeting customer demand for products that deliver beauty, comfort, and performance. CertainTeed’s respect for the environment is reflected in our ongoing emphasis on sustainable building products and systems. Open sharing of the data we gather on these effects – as embodied in Environmental Product Declarations – is central to the process and sets CertainTeed apart.

# Limitations, Liability and Ownership

Environmental declarations from different programs (ISO 14025) may not be comparable. Comparison of the environmental performance of 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 whole building life cycle. EPD comparability is only possible 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.
The EPD owner has sole ownership, liability, and responsibility for the EPD.

# Reference Standards

| | |
|---|---|
| **Standard(s):** | ISO 14025:2006 and ISO 21930:2017 |

| | |
|---|---|
| **Core PCR:** | UL Part A PCR for Building-Related Products and Services v4 |
| | Date of issue: March 01, 2022 |
| **Sub-category PCR:** | UL Part B: Non-Metal Ceiling and Interior Wall Panels v2 |
| | Date of issue: April 13, 2021 |
| | Valid until: October 31, 2026 |
| **Sub-category PCR review panel:** | Contact Smart EPD for more information. |
| **General Program Instructions:** | Smart EPD General Program Instructions v.2.0, March 2025 |

## Verification Information

| | |
|---|---|
| **LCA Author/Creator:** | Saint-Gobain North American ESG Sustainability Group |
| | sustainability@saint-gobain.com |
| **EPD Program Operator:** | Smart EPD |
| | info@smartepd.com |
| | www.smartepd.com |
| | 585 Grove St., Ste. 145, Herndon, VA 20170, USA |
| **Verification:** | Independent critical review of the LCA and data, according to ISO 14044 and ISO 14071: External<br>Anni Oviir \| LCA Support \| anni.oviir@lcasupport.com |
| | Independent external verification of EPD, according to ISO 14025 and reference PCR(s): External<br>Anni Oviir \| LCA Support \| anni.oviir@lcasupport.com |

## Product Information

| | |
|---|---|
| **Declared Unit:** | 0.093 m2 |
| **Mass:** | 0.72 kg |
| **Reference Service Life:** | 30 Years |
| **Product Specificity:** | ✗ Product Average |
| | ✓ Product Specific |

## Product Description

Decoustics 2" Clean-Air Claro is a premium, custom-engineered acoustical ceiling and wall panel. Decoustics Clean-Air Claro® | CertainTeed. Designed to mimic the smooth aesthetic of drywall or plaster Clean-Air Claro® Finish, it features an acoustically transparent, stipple-textured coating, Decoustics Claro, that offers high-performance sound absorption.

The default RSL of 30 years was used based on PCR guidance.

**Further information can be found at:** https://www.certainteed.com/products/ceiling-wall-systems-products/decoustics-clean-air-claro

# Product Specifications

| | |
|---|---|
| **Product Classification Codes:** | UNSPSC - 30161504 – Acoustic Wall Panels<br>UNSPSC - 30161701 – Acoustic Ceiling Panels<br>EC3 - Finishes -> CeilingPanel -> AcousticalCeilings |
| **Sound absorption coefficient (NRC) (ASTM C423):** | 0.90 |
| **Light reflectance (ASTM E1477):** | 90% (Decoustics Standard White) % |
| **Sound Attenuation Between Rooms Sharing a Common Ceiling Plenum (CAC)(ASTM E1414 and Classification E413):** | 0.32 dB |
| **Surface burning characteristics of building materials (ASTM E84, ASTM E1264):** | CLASS A flame spread/smoke developed |
| **Declared thickness:** | 5.08 cm |

# Material Composition

| Material/Component Category | Origin | % Mass |
|---|---|---|
| Fiberglass Core | Confidential | 55%-65% |
| Aluminum Extrusion | Confidential | 12%-22% |
| Ceilencio Grid | Confidential | 5%-11% |
| High Density Fiberglass Layer | Confidential | 0%-4% |
| Adhesive | Confidential | 5%-11% |
| Vapor Barrier | Confidential | 0%-1% |
| Fiberglass Veil Underliner | Confidential | 1%-5% |
| Aluminum Butterflies | Confidential | 0%-3% |
| Steel Mounting Hardware | Confidential | 0%-3% |
| Paint | Confidential | 0%-1% |

| Packaging Material | Origin | kg Mass |
|---|---|---|
| Cardboard Box | Confidential | 3.52E-02 |
| Steel Hardware | Confidential | 9.77E-04 |
| Wooden Crate | Confidential | 1.04E-01 |

| Biogenic Carbon Content | kg C per 0.093 m2 |
|---|---|
| Biogenic carbon content in product | 0.0256 |

| Biogenic Carbon Content | kg C per 0.093 m2 |
|---|---|
| Biogenic carbon content in accompanying packaging | 0.0652 |

| Hazardous Materials |
|---|
| No materials used in this study appear on the REACH SVHC list or are classified under GHS. |

## EPD Data Specificity

**Primary Data Year:** 2025

**Manufacturing Specificity:**

- ✗ Industry Average
- ✗ Manufacturer Average
- ✓ Facility Specific

**Averaging:**

Averaging was not conducted for this EPD.

This EPD was calculated using specific data for processes under the control of the CertainTeed Woodbridge, ON facility. Secondary data was used for all A1 processes. Specifc data was used for all A2 and A3 processes except packaging.

This EPD was generated with the Decoustics Acoustical Panels EPD Tool, Version 1, Valid June 8, 2026- June 7, 2031.

## System Boundary

| | | | |
|---|---|---|---|
| Production | A1 | Raw material supply | ✓ |
| | A2 | Transport | ✓ |
| | A3 | Manufacturing | ✓ |
| Construction | A4 | Transport to site | ✓ |
| | A5 | Assembly / Install | ✓ |
| Use | B1 | Use | ND |
| | B2 | Maintenance | ND |
| | B3 | Repair | ND |
| | B4 | Replacement | ND |
| | B5 | Refurbishment | ND |
| | B6 | Operational Energy Use | ND |
| | B7 | Operational Water Use | ND |

| | | | |
|---|---|---|---|
| End of Life | C1 | Deconstruction | ✓ |
| | C2 | Transport | ✓ |
| | C3 | Waste Processing | ✓ |
| | C4 | Disposal | ✓ |
| Benefits & Loads Beyond System Boundary | D | Recycling, Reuse Recovery Potential | ND |

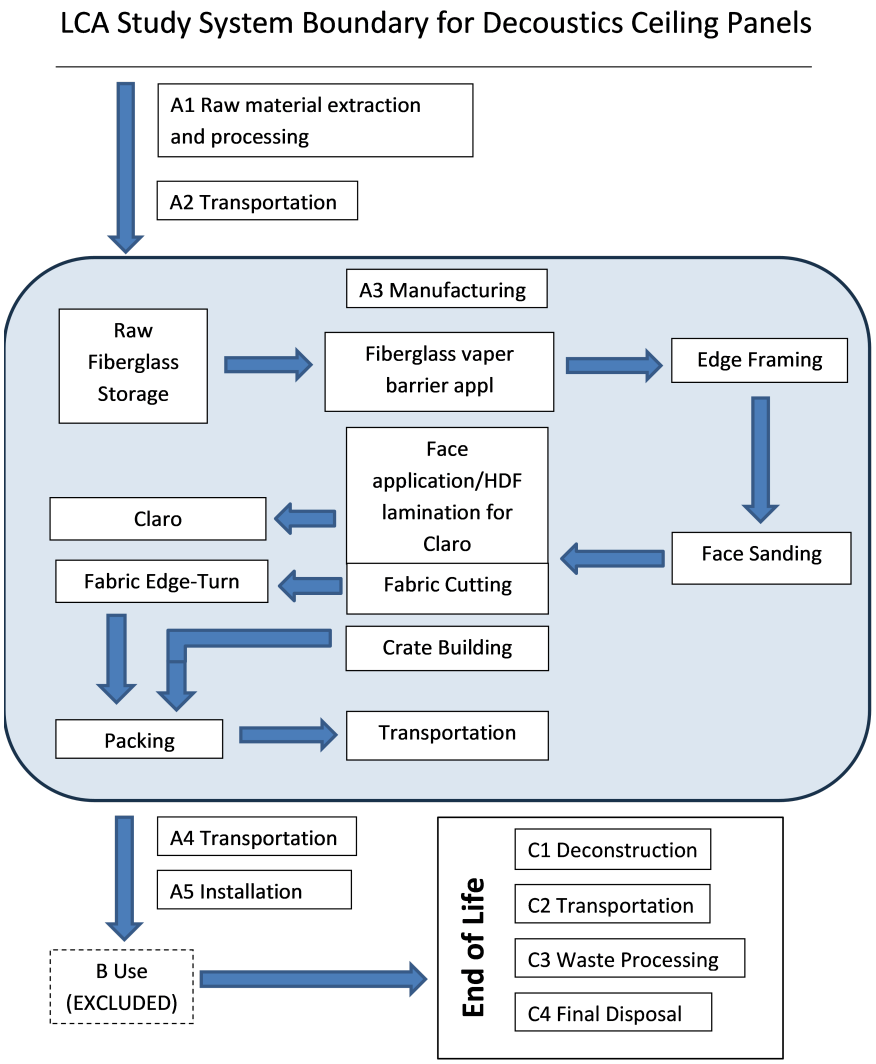
Note:

ND = Module not declared

## Plants

CertainTeed Architectural 61 Royal Group Crescent, Woodbridge, Vaughan, ON, Canada

# Product Flow Diagram




# Software And Database

| | | |
|---|---|---|
| **LCA Software:** | Sphera LCA for Experts (formerly GaBi) v. 10.8 | |
| **LCI Foreground Database(s):** | Sphera Managed LCA Content v. 2025.2 | Ecoinvent v. 3.11 |
| **LCI Background Database(s):** | Sphera Managed LCA Content v. 2025.2 | Ecoinvent v. 3.11 |

A foreground LCI database is the database used to model the primary, site-specific data collected for this EPD. A background LCI database is the database used to model generic or non-specific data.

# Data Quality

Wherever secondary data is used, the study adopts critically reviewed data for consistency, precision, and reproducibility to limit uncertainty. The data sources used are complete and representative of North America (depending on the material source) in terms of the geographic and technological coverage and are less than ten years old. Any deviations from these initial data quality requirements for secondary data are documented in the report.

The results of an LCA are only as good as the quality of input data used. Important data quality factors include precision (measured, calculated, or estimated), completeness, consistency, and reproducibility. The primary data from the manufacturing facilities was from November 2024 to October 2025. Each background dataset used was taken from Sphera's Managed LCA Content v2025.2, US LCI, and Ecoinvent v3.11 databases. Background datasets used in this study may be found in table Table 3-1: Data Sources and Quality for LCA. These databases are widely distributed and referenced within the LCA community and are either partially or fully critically reviewed.

# Life Cycle Module Description

Raw Materials (Module A1)
A thorough analysis of the material inputs was completed for the inventory of this study.

Raw Material Transportation (Module A2)
Raw materials are transported to the manufacturing sites by standard freight truck or ocean freighters. Unless otherwise noted, transport vehicles are fueled with diesel fuel.

Manufacturing (Module A3)

A detailed analysis of the ceiling tile manufacturing process was completed by the Saint-Gobain North American Environmental, Social and Governance (ESG) department to observe and understand the manufacturing processes for the Decoustics ceiling panels.

Raw fiberglass sheets are inventoried and stored as they arrive at the facility. Next, the fiberglass is waterjet-cut to shape the sheet, followed by sanding. If the panel includes a metal edge, a slit is cut into the side of the fiberglass sheet to facilitate the application of the edge, and the edges are sanded. Next, the core’s edges are trimmed, and the facing material is applied, either with glued fabric or a pre-coated fiberglass veil. Once the face is used, the product is wrapped with plastic film and packaged in a crate before shipment.

Packaging (Module A3)
Packaging of the final product after production is included in the life cycle assessment. The product is packaged in crate made from cardboard/wooden skid before being shipped. The weight of each material per square foot of finished product was calculated.

Final Product Transportation (Module A4)
Final products are transported on trucks throughout the United States and Canada. This study assumed an average of 800 km for the final shipment of product based on the assumption within the PCR.

Installation (Module A5)
The Decoustics panels must be installed in accordance with all applicable CertainTeed installation guidelines at the time of installation. Approved installation procedures are in the Ceilings/Wall Systems Handbook published by the Ceilings & Interior Systems Construction Association must be followed. Please follow link to handbook https://www.cisca.org/i4a/pages/index.cfm?pageid=3281

Installation of Decoustics is accomplished by manual labor and typically does not require any additional materials. If necessary, cutting is done by hand using handheld cutting tools.

There are no apparent risks involved with the installation of Decoustics’ panels since no additional coating or finishing is required. The installer should wear safety glasses while installing the panels to avoid debris from falling into the eyes as well as approved gloves.

Based on discussions with Decoustics personnel, a scrap rate of 1% was used for this study, due to the highly custom nature of the product and the resulting minimal
Product loss per functional unit was generated by calculating the total scrap rate for each product. The waste materials at the construction site before waste processing included the product loss per functional unit and packaging waste.

Within the LCA FE model, transportation of installation waste and disposal of packaging and product loss were included within this study. All installation waste disposal is based off Part A (Product Category Rules for Building-Related Product and Services: Part A – Life Cycle Assessment Calculation Rules and Report Requirements. Version 4. March 2022. UL Environment) guidance.

Use Phase (Modules B1-B5)
The use phase is excluded from the study.

End of Life (Modules C1-C4)
This study assumes a product service life of 30 years. The selected service life used in this study reflects the indicated in the PCR. Per Part A (Part A: Life Cycle Assessment Calculation Rules and Report Requirements UL Environment December 2018, version 3.2) guidance, see end of life disposal assumptions in Table 4-9.

Deconstruction of Decoustics is accomplished by manual labor and typically does not require any additional materials. If necessary, cutting is done by hand using handheld cutting tools. No additional electricity is required for deconstruction.

# LCA Discussion

## Allocation Procedure

The Woodbridge, ON facility is the only location that produces the Decoustics Ceiling Panel product lines in Canada for CertainTeed Corporation. There are no additional products produced at this location. Allocation was conducted based on the total mass of net saleable production during the reference period (November 2024-October 2025).

The study used the cut-off approach. No credit was taken for recycled content at end of life.

## Cut-off Procedure

All inputs and outputs to a process shall be included in the calculation of results, for which data are available. Any data gaps are filled by conservative assumptions with average, generic, or proxy data. Any such assumptions are documented in Section 4.1.

For hazardous substances, as defined by the U.S. Resource Conservation and Recovery Act (RCRA), the following requirements 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 LCA is in compliance with the cut-off criteria since no known processes were neglected or excluded from this analysis outside of the specific items outside the system boundary.

# Renewable Electricity

| | |
|---|---|
| **Energy Attribute Certificates (EACs) such as Renewable Energy Certificates (RECs) or Power Purchase Agreements (PPAs) are included in the baseline reported results:** | ✕ No |

# Scenarios

## Transport to the building/construction site (A4)

A4 Module

| | |
|---|---|
| **Fuel Type:** | Average Fuel Mix |
| **Vehicle Type:** | Combination Truck |
| **Transport Distance:** | 800 km |
| **Packaging Mass:** | 1.40E-01 kg |
| **Weight of products transported:** | 7.24E-01 kg |
| **Assumptions for scenario development:** | Final products are transported on trucks throughout the United States and Canada. This study assumed an average of 800 km for the final shipment of product based on the assumption within the PCR. |

## Installation in to the building/construction site (A5)

A5 Module

| | |
|---|---|
| **Installation Scrap Rate Assumed:** | 1 % |
| **Product Lost per Declared/Functional Unit:** | 7.24E-03 kg |
| **Waste Materials at the Construction Site Before Waste Processing:** | 1.47E-01 kg |
| **Mass of Packaging Waste Specified by Type:** | Plastics: 0.00E+00 kg Metals: 8.09E-04 kg Pulp: 2.91E-02 kg Other Materials: 1.12E-01 kg kg |
| **Assumptions for scenario development:** | The Decoustics panels must be installed in accordance with all applicable CertainTeed installation guidelines at the time of installation. Approved installation procedures are in the Ceilings/Wall Systems Handbook published by the Ceilings & Interior Systems Construction Association must be followed. Please follow link to handbook https://www.cisca.org/i4a/pages/index.cfm?pageid=3281 Installation of Decoustics is accomplished by manual labor and typically does not require any additional materials. If necessary, cutting is done by hand using handheld cutting tools. There are no apparent risks involved with the installation of Decoustics’ panels since no additional coating or finishing is required. The installer should wear safety glasses while installing the panels to avoid debris from falling into the eyes as well as approved gloves. Waste outputs from installation are distributed among recycling, landfill, and incineration routes according to the US and Canadian disposal categories outlined in UL Part A V 4.0 PCR. The disposal pathways are allocated between the US and Canada based on distribution shares to each country in the reference time period. |

## End of Life (C1 - C4)

C1 - C4 Modules

### Recovery

**Recycling:** 1.85E-01 kg
**Incineration:** 0.00E+00 kg

### Disposal

**Product or Material for Final Disposal:** 5.39E-01 kg

**Assumptions for scenario development:**
This study assumes a product service life of 30 years. The selected service life used in this study reflects the indicated in the PCR. Per Part A (Part A: Life Cycle Assessment Calculation Rules and Report Requirements UL Environment December 2018, version 3.2) guidance, see end of life disposal assumptions in Table 4 9. Deconstruction of Decoustics is accomplished by manual labor and typically does not require any additional materials. No additional electricity is required for deconstruction.

# Results

## Environmental Impact Assessment Results

IPCC AR5 GWP 100, TRACI 2.1, CML 2016 v4.8

per 0.093 m2 of product.

LCIA results are relative expressions and do not predict impacts on category endpoints, the exceeding of thresholds, safety margins or risks.

| Impact Category | Unit | Method | A1 - A3 | A4 | A5 | C1 | C2 | C3 | C4 |
|---|---|---|---|---|---|---|---|---|---|
| GWP-total | kg CO2 eq | IPCC AR5 GWP 100 | 2.67e+0 | 6.49e-2 | 2.72e-1 | 0 | 2.38e-3 | 0 | 1.06e-1 |
| GWP-total (excl biogenic) | kg CO2 eq | IPCC AR5 GWP 100 | 3.03e+0 | 6.49e-2 | 3.18e-2 | 0 | 2.38e-3 | 0 | 1.22e-2 |
| ODP | kg CFC 11 eq | TRACI 2.1 | 1.13e-7 | 2.42e-12 | 1.13e-9 | 0 | 8.88e-14 | 0 | 2.52e-15 |
| AP | kg SO2 eq | TRACI 2.1 | 2.76e-2 | 3.85e-4 | 2.81e-4 | 0 | 1.41e-5 | 0 | 6.11e-5 |
| EP | kg N eq | TRACI 2.1 | 4.38e-3 | 2.13e-5 | 4.57e-5 | 0 | 7.81e-7 | 0 | 2.53e-6 |
| POCP | kg O3 eq | TRACI 2.1 | 2.71e-1 | 1.06e-2 | 2.84e-3 | 0 | 3.88e-4 | 0 | 1.09e-3 |
| ADP-fossil | MJ | CML 2016 v4.8 | 4.17e+1 | 8.17e-1 | 4.29e-1 | 0 | 2.99e-2 | 0 | 1.75e-1 |

Note:

Not all abbreviated indicators listed below may be present in the results above. The inclusion of indicators varies based on PCR requirements.

Abbreviations:

GWP = Global Warming Potential, 100 years (may also be denoted as GWP-total, GWP-fossil (fossil fuels), GWP-biogenic (biogenic sources), GWP-luluc (land use and land use change)), ODP = Ozone Depletion Potential, AP = Acidification Potential, EP = Eutrophication Potential, SFP = Smog Formation Potential, POCP = Photochemical oxidant creation potential, ADP-Fossil = Abiotic depletion potential for fossil resources, ADP-Minerals&Metals = Abiotic depletion potential for non-fossil resources, WDP = Water deprivation potential, PM = Particular Matter Emissions, IRP = Ionizing radiation, human health, ETP-fw = Eco-toxicity (freshwater), HTP-c = Human toxicity (cancer), HTP-nc = Human toxicity (non-cancer), SQP = Soil quality index.

Comparisons cannot be made between product-specific or industry average EPDs at the design stage of a project, before a building has been specified. Comparisons may be made between product-specific or industry average EPDs at the time of product purchase when product performance and specifications have been established and serve as a functional unit for comparison. Environmental impact results shall be converted to a functional unit basis before any comparison is attempted. Any comparison of EPDs shall be subject to the requirements of ISO 21930 or EN 15804. EPDs are not

comparative assertions and are either not comparable or have limited comparability when they have different system boundaries, are based on different product category rules or are missing relevant environmental impacts. Such comparison can be inaccurate, and could lead to erroneous selection of materials or products which are higher-impact, at least in some impact categories.

## Resource Use Indicator

per 0.093 m2 of product.

| Indicator | Unit | A1 - A3 | A4 | A5 | C1 | C2 | C3 | C4 |
|---|---|---|---|---|---|---|---|---|
| RPRE | MJ | 1.24e+1 | 0 | 1.24e-1 | 0 | 0 | 0 | 2.56e-2 |
| RPRM | MJ | 2.56e+0 | 0 | 2.56e-2 | 0 | 0 | 0 | 0 |
| NRPRE | MJ | 5.36e+1 | 8.25e-1 | 5.47e-1 | 0 | 3.02e-2 | 0 | 1.80e-1 |
| NRPRM | MJ | 1.31e+0 | 0 | 1.31e-2 | 0 | 0 | 0 | 0 |
| SM | kg | 3.51e-1 | 0 | 3.51e-3 | 0 | 0 | 0 | 0 |
| RSF | MJ | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| NRSF | MJ | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| FW | m3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| RE | MJ | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Note:

Not all abbreviated indicators listed below may be present in the results above. The inclusion of indicators varies based on PCR requirements.

Abbreviations:

RPRE or PERE = Renewable primary resources used as energy carrier (fuel), RPRM or PERM = Renewable primary resources with energy content used as material, RPRT or PERT = Total use of renewable primary resources with energy content, NRPRE or PENRE = Non-renewable primary resources used as an energy carrier (fuel), NRPRM or PENRM = Non-renewable primary resources with energy content used as material, NRPRT or PENRT = Total non-renewable primary resources with energy content, SM = Secondary materials, RSF = Renewable secondary fuels, NRSF = Non-renewable secondary fuels, RE = Recovered energy, ADPF = Abiotic depletion potential, FW = Use of net freshwater resources, VOCs = Volatile Organic Compounds.

## Waste and Output Flow Indicators

per 0.093 m2 of product.

| Indicator | Unit | A1 - A3 | A4 | A5 | C1 | C2 | C3 | C4 |
|---|---|---|---|---|---|---|---|---|
| HWD | kg | 1.37e-2 | 0 | 2.02e-4 | 0 | 0 | 0 | 4.31e-11 |
| NHWD | kg | 3.96e+0 | 0 | 4.16e-2 | 0 | 0 | 0 | 5.40e-1 |
| HLRW | kg | 6.11e-6 | 0 | 6.11e-8 | 0 | 0 | 0 | 2.26e-9 |
| ILLRW | kg | 4.60e-3 | 0 | 4.60e-5 | 0 | 0 | 0 | 1.98e-6 |
| CRU | kg | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| MFR | kg | 2.56e-2 | 0 | 2.96e-2 | 0 | 0 | 0 | 1.85e-1 |
| MER | kg | 0 | 0 | 1.53e-3 | 0 | 0 | 0 | 0 |
| EEE | MJ | 0 | 0 | 2.13e-3 | 0 | 0 | 0 | 0 |
| EET | MJ | 0 | 0 | 4.36e-3 | 0 | 0 | 0 | 0 |

Note:

Not all abbreviated indicators listed below may be present in the results above. The inclusion of indicators varies based on PCR requirements.

Abbreviations:

HWD = Hazardous waste disposed, NHWD = Non-hazardous waste disposed, RWD = Radioactive waste disposed, HLRW = High-level radioactive waste, ILLRW = Intermediate- and low-level radioactive waste, CRU = Components for re-use, MFR or MR = Materials for recycling, MER = Materials for energy recovery, MNER = Materials for incineration, no energy recovery, EE or EEE = Recovered energy exported from the product system, EET = Exported thermal energy.

## Carbon Emissions and Removals

per 0.093 m2 of product.

| Indicator | Unit | A1 - A3 | A4 | A5 | C1 | C2 | C3 | C4 |
|---|---|---|---|---|---|---|---|---|
| BCRP | kg CO2 | -9.37e-2 | 0 | -9.37e-4 | 0 | 0 | 0 | 0 |
| BCEP | kg CO2 | 0 | 0 | 9.37e-4 | 0 | 0 | 0 | 9.37e-2 |
| BCRK | kg CO2 | -2.39e-1 | 0 | -2.39e-3 | 0 | 0 | 0 | 0 |
| BCEK | kg CO2 | 0 | 0 | 2.42e-1 | 0 | 0 | 0 | 0 |
| BCEW | kg CO2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CCE | kg CO2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CCR | kg CO2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CWNR | kg CO2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Note:

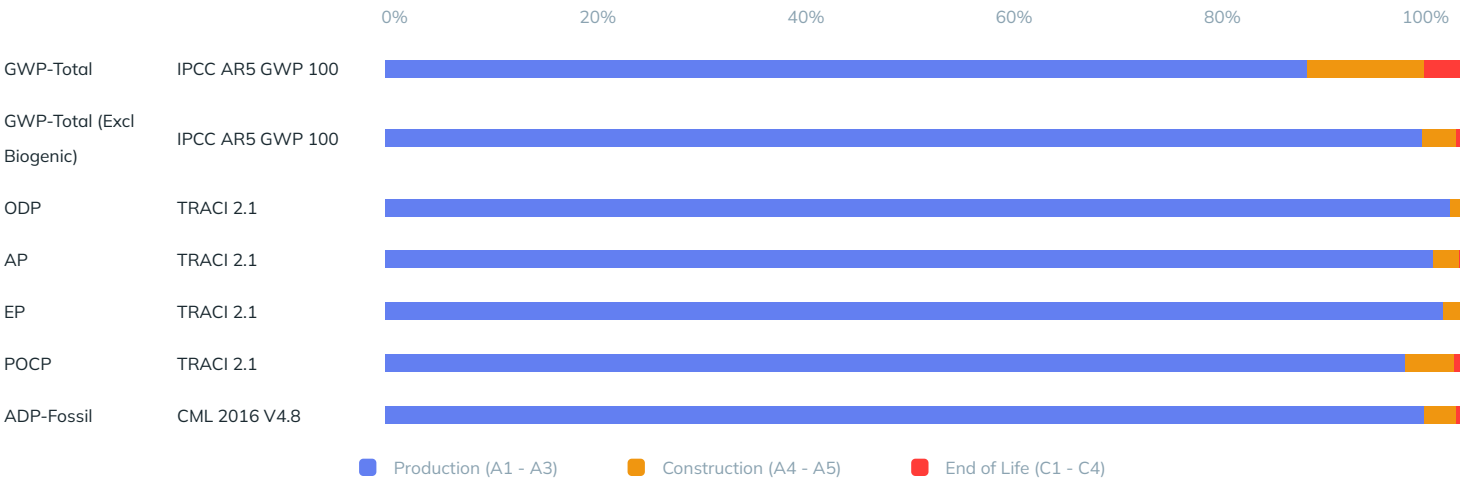
Not all abbreviated indicators listed below may be present in the results above. The inclusion of indicators varies based on PCR requirements.

Abbreviations:

BCRP = Biogenic Carbon Removal from Product, BCEP = Biogenic Carbon Emission from Product, BCRK = Biogenic Carbon Removal from Packaging, BCEK = Biogenic Carbon Emission from Packaging, BCEW = Biogenic Carbon Emission from Combustion of Waste from Renewable Sources Used in Production Processes, CCE = Calcination Carbon Emissions, CCR = Carbonation Carbon Removals, CWNR = Carbon Emissions from Combustion of Waste from Non-Renewable Sources used in Production Processes, GWP-luc = Carbon Emissions from Land-use Change.

# Interpretation

Based on the results from the life cycle assessment, the life cycle impacts are strongly driven by the raw material and manufacturing processes. These two stages account for 82%-98% of the impact across the environmental indicators. Identifying alternate uses or recycling options for the product at the end of its useful life will reduce the end-of-life and potential raw materials burdens of recycled products. If possible, incorporating more recycled content into the product will help reduce the environmental impacts of the raw materials stage in the life cycle of the product. Fiberglass core, Aluminum, and Electricity were the highest contributors towards the GWP-Total impact, accounting for roughly 69% of the overall impact.



## Modified Impact Results: Renewable Electricity

per 0.093 m2 of product.

| Impact Category | Unit | Method | A1 - A3 | A4 | A5 | C1 | C2 | C3 | C4 |
|---|---|---|---|---|---|---|---|---|---|
| GWP-total | kg CO2 eq | IPCC AR5 GWP 100 | 2.54e+0 | 6.49e-2 | 2.71e-1 | 0 | 2.38e-3 | 0 | 1.06e-1 |
| GWP-fossil | kg CO2 eq | IPCC AR5 GWP 100 | 2.91e+0 | 6.49e-2 | 3.05e-2 | 0 | 2.38e-3 | 0 | 1.22e-2 |
| AP | kg SO2 eq | TRACI 2.1 | 2.78e-2 | 3.85e-4 | 2.83e-4 | 0 | 1.41e-5 | 0 | 6.11e-5 |
| EP | kg N eq | TRACI 2.1 | 4.74e-3 | 2.13e-5 | 4.92e-5 | 0 | 7.81e-7 | 0 | 2.53e-6 |
| ODP | kg CFC 11 eq | TRACI 2.1 | 1.18e-7 | 2.42e-12 | 1.19e-9 | 0 | 8.88e-14 | 0 | 2.52e-15 |
| POCP | kg O3 eq | TRACI 2.1 | 2.71e-1 | 1.06e-2 | 2.84e-3 | 0 | 3.88e-4 | 0 | 1.09e-3 |
| ADP-fossil | MJ | CML 2016 v4.8 | 3.98e+1 | 8.17e-1 | 4.09e-1 | 0 | 2.99e-2 | 0 | 1.75e-1 |
| ADP-fossil | MJ | TRACI 2.1 | ND | ND | ND | ND | ND | ND | ND |

Note:

Abbreviations:

GWP = Global Warming Potential, 100 years (may also be denoted as GWP-total, GWP-fossil (fossil fuels), GWP-biogenic (biogenic sources), GWP-luluc (land use and land use change)), ODP = Ozone Depletion Potential, AP = Acidification Potential, EP = Eutrophication Potential, SFP = Smog Formation Potential, POCP = Photochemical oxidant creation potential, ADP-Fossil = Abiotic depletion potential for fossil resources, ADP-Minerals&Metals = Abiotic depletion potential for non-fossil resources, WDP = Water deprivation potential, PM = Particular Matter Emissions, IRP = Ionizing radiation, human health, ETP-fw = Eco-toxicity (freshwater), HTP-c = Human toxicity (cancer), HTP-nc = Human toxicity (non-cancer), SQP = Soil quality index.

Saint-Gobain is committed to achieving Carbon Neutrality by 2050. In January 2021, Saint-Gobain North America (SGNA) 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. In 2024, SGNA also begin receiving RECs from Danish Fields Solar Project (15-year renewable electricity supply agreement) and Cottonwood Bayou Solar Project (10-year renewable electricity supply agreement), two solar projects in Texas.

Each year within time periods of these renewable energy agreements, the company receives and retires these RECs, effectively reducing CO2 equivalent emissions from electricity usage in the United States and Canada. The retirement of these RECs is done on a yearly basis. Considering most of the reference period for this study is in 2025, the electricity split for 2025 was selected to model the electricity with renewable energy.

The updated results incorporate the impact of RECs on the electricity used in the manufacturing process (A3), as shown in the aggregated A1, A2, and A3 data in the ‘Modified Impact Results: Renewable Electricity’ table. The reduced impacts resulting from allocated RECs at the Decoustics Woodbridge site were calculated using 100% wind-generated electricity, covering 31% of the site’s electricity consumption in 2025 and 100% solar-generated electricity covering 41% of the site’s electricity consumption in 2025. The Blooming Grove REC data was modelled using the ‘US-SERC Electricity production, wind, 1-3MW turbine, onshore’ dataset, with a carbon intensity of 13.2 kg CO2e/MWh*. The Texas Solar REC data for Danish Fields and Cottonwood Bayou was modelled using the ‘US-TRE electricity product, 3kWp slanted-roof installation, multi-Si, panel, mounted’ dataset, with a carbon intensity of 66.4 kg CO2e/MWh*. Any remaining energy not covered by RECs was modelled based on local energy grid information for the manufacturing site(s).

# Further Information

## Further Product Specifications

CDPH low VOC Complaint
ASTM E1264 - Classification for Acoustic Ceilings
ASTM E84 - Surface Burning Characteristics; pursuant to test certificate

ASTM C423 - sound absorption
ASTM E1414 - Airborne Sound Attenuation
ISO 14644 - Clean Room Standard
CDPH v1.2 - California Department of Public Health CDPH/EHLB/Standard Method Version 1.2, 2017 for VOC
ASTM C609 Standard Test Method for Measurement of Light Reflectance Value

# References

· Product Category Rules for Building-Related Product and Services: Part A – Life Cycle Assessment Calculation Rules and Report Requirements. Version 4. March 2022. UL Environment.

· Product Category Rule Guidance for Building-Related Products and Services Part B: Non-Metal Ceiling and Interior Wall Panel EPD Requirements, Version 2.0 2021. UL Environment.

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

· ISO 21930:2017– Sustainability in building construction – Environmental declaration of building products

· LCA FE Databases. https://LCA FE.sphera.com/america/

· US LCI Database. https://www.nrel.gov/lci/

· Ecoinvent v3.11 Database. http://ecoinvent.org/

· CertainTeed Ceilings and Walls Website. https://www.certainteed.ca/ceilings-decoustics

· Statistics Canada https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=2510001501

· EcoTransit EcoTransIT World - Emission Calculator