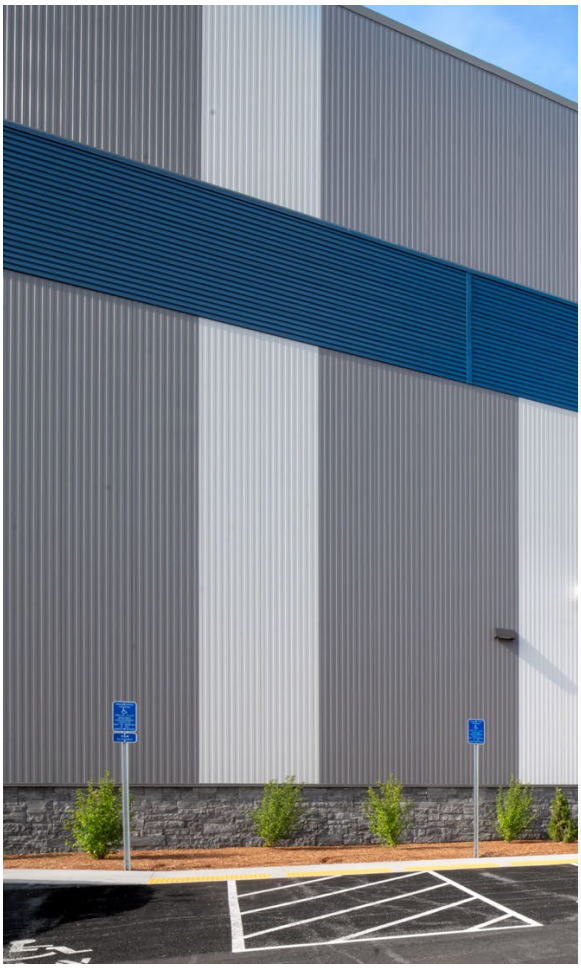


**Declaration Owner**
All Weather Insulated Panels
sales@awipanels.com
Contact Number: +1 (888) 970-AWIP (2947)
https://www.awipanels.com/products/

**Product**
Insulated Metal Panels: Wall produced in Vacaville, CA, with InnovaCELL foam and steel coils from AWIP's average steel supply.
Products: DM40, DM44, IP44, FL40/FL36, FW40, ST40/ST36, MW40, HE40, HE40A, CW36, HR3-W, HR5-W, DM40-F+

**Functional Unit**
The functional unit is 100 $m^2$ of building coverage area over a 75-year building service life.

**EPD Number and Period of Validity**
SCS-EPD-10562
EPD Valid December 23, 2025 through December 22, 2030

**Product Category Rule**
PCR Guidance for Building-Related Products and Services Part A: Life Cycle Assessment Calculation Rules and Report Requirements. Version 4.0. UL Environment. Mar. 2022

PCR Guidance for Building-Related Products and Services Part B: Insulated Metal Panels, Metal Composite Panels, and Metal Cladding: Roof and Wall Panels, UL 10010–5. October 23, 2018.

**Program Operator**
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| | |
|---|---|
| Declaration Owner: | All Weather Insulated Panels |
| Address: | 929 Aldridge Rd, Vacaville, CA 95688, USA |
| Declaration Number: | SCS-EPD-10562 |
| Declaration Validity Period: | EPD Valid December 23, 2025 through December 22, 2030 |
| Program Operator: | SCS Global Services |
| Declaration URL Link: | https://www.scsglobalservices.com/certified-green-products-guide |
| LCA Practitioner: | Vicki Rybl, Sagar Siripuram \| WAP Sustainability |
| LCA Software and LCI database: | LCA FE - Version 10.9, MLC 2022.1 |
| Product RSL: | 30 years |
| Markets of Applicability: | North America |
| EPD Type: | Product Specific, Facility Specific |
| EPD Scope: | Cradle-to-Grave |
| LCIA Method and Version: | TRACI 2.1, CML 2001-Aug 2016, IPCC AR6 |
| Independent critical review of the LCA and data, according to ISO 14044, ISO 21930 and ISO 14071 | ☐ INTERNAL ☒ EXTERNAL |
| LCA Reviewer: | Beth Cassese, LCACP, CLAR – SCS Global Services |
| Part A Product Category Rule: | PCR Guidance for Building-Related Products and Services Part A: Life Cycle Assessment Calculation Rules and Report Requirements. Version 4.0, UL Environment. 2022. |
| Part A PCR Review conducted by: | Lindita Bushi, PhD (Chair); Hugues Imbeault-Tétreault, ing., M.Sc.A.; Jack Geibig |
| Part B Product Category Rule: | PCR Guidance for Building-Related Products and Services Part B: Insulated Metal Panels, Metal Composite Panels, and Metal Cladding: Roof and Wall Panels, UL 10010–5. October 23, 2018 |
| Part B PCR Review conducted by: | Thomas Gloria (Chair), Industrial Ecology Consultants; Lindita Bushi, PhD; Bob Zebcik, PE |
| Independent verification of the declaration and data, according to ISO 14025, ISO 21930 and the PCR | ☐ INTERNAL ☒ EXTERNAL |
| EPD Verifier: | Beth Cassese, LCACP, CLAR – SCS Global Services |
| Declaration Contents: | 1. About All Weather Insulated Panels ... 3<br>2. Product ... 3<br>3. LCA: Calculation Rules ... 7<br>4. LCA: Scenarios and Additional Technical Information ... 9<br>5. LCA: Results ... 13<br>6. LCA: Interpretation ... 17<br>7. Additional Environmental Information ... 18<br>8. References ... 19 |

***Disclaimers:*** *This EPD conforms to ISO 14025, 14040, 14044, and ISO 21930.*

***Scope of Results Reported:*** *The PCR requirements limit the scope of the LCA metrics such that the results exclude environmental and social performance benchmarks and thresholds, and exclude impacts from the depletion of natural resources, land use ecological impacts, ocean impacts related to greenhouse gas emissions, risks from hazardous wastes and impacts linked to hazardous chemical emissions.*

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

***Comparability:*** *The PCR this EPD was based on was not written to support comparative assertions. EPDs based on different PCRs, or different calculation models, may not be comparable. When attempting to compare EPDs or life cycle impacts of products from different companies, the user should be aware of the uncertainty in the final results, due to and not limited to, the practitioner's assumptions, the source of the data used in the study, and the specifics of the product modeled. In accordance with ISO 21930:2017, EPDs are comparable only if they comply with the core PCR, use the same sub-category PCR where applicable, include all relevant information modules and are based on equivalent scenarios with respect to the context of construction works.*

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# 1. About All Weather Insulated Panels

All Weather Insulated Panels (AWIP) is an innovator in the design, construction, and advancement of foam composite insulated metal panels. The company is strategically positioned to meet the growing energy, environmental and economic challenges facing the North American building industry with state-of-the-art continuous line manufacturing facilities in Vacaville, California, Little Rock, Arkansas and East Stroudsburg, Pennsylvania. AWIP's sustainability efforts include a commitment to responsible use of materials and the use of renewable energy to manufacture products.

# 2. Product

### *2.1 Product Description*

Insulated metal panels are comprised of a rigid foam core sandwiched between two metal sheets and cut to shape and size as requested by the customer. Interior and exterior insulated metal panels offer an efficient alternative to field assembled roofing systems. In the factory, steel substrates and insulating foam are combined to create lightweight, strong and energy efficient panels. A variety of solutions are available to meet the requirements of almost any building. They are also available in numerous colors and applied finishes.

This EPD covers AWIP Wall products: DM40, DM44, IP44, FL40/FL36, FW40, ST40/ST36, MW40, HE40, HE40A, CW36, HR3-W, HR5-W, DM40-F+

This EPD covers insulated metal panels products produced by AWIP in Vacaville, CA using InnovaCELL foam and steel coil. The supply in the raw materials stage (A1) represents AWIP's typical sourcing of steel coil.




### *2.2 Application*

AWIP's insulated panels are used in a variety of applications including architectural, commercial, industrial, institutional, and cold storage applications due to the excellent thermal efficiency, ease of installation and overall structural integrity.

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### *2.3 Technical Data*

The following technical data is relevant for the declared as-delivered product. Additional performance test results are also disclosed, as applicable. All Weather Insulated Panels' products have been extensively tested under a variety of North American standards.

***Table 1: Technical Data***

| Property | Test Results | Units |
|---|---|---|
| Length | 2.44 – 21.9 | m |
| Width | 1.02 | m |
| Thickness | 50.8-203 | mm |
| Density | 32-40 | $kg/m^3$ |
| Tensile Strength (Adhesion) | 0.057 | MPa |
| Modulus of Elasticity (Steel) | 200,000 | MPa |
| U-value of assembly including interruptions to insulation | 0.40-0.10 | [W/m2*K] (@ 24 degC mean) |
| R value of typical materials where continuous | 2.47-10.03 | [m2*K/W] (@ 24 degC mean) |
| Water vapor permeance | This term/calculation is not relevant to IMPs as steel is not permeable. | Metric perms |
| Airborne sound reduction | Panels typically not used for sound reduction | dB |
| Sound absorption coefficient | Panels typically not used for sound reduction | % |

### *2.4 Delivery Status*

AWIP supplies Insulated metal panels in a variety of sizes and configurations customized to customer requirements. Panel configurations have a range as follows:

- Thickness: from 2 inches to 6 inches
- Width: 36 inches to 44 inches
- Length: from 8 feet to 50 feet, depending on product

Joint configurations: The panel's overlapping joint is self-aligning and allows for easy sealant application at the panel joinery.

Facings: Material: Galvanized/Galvalume steel
Gauge ranges: 22, 24- and 26-gauge steel

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### *2.5 Material Composition*

*Table 2: Material Composition*

| Material | Amount - 2" thick panel, 26 / 26 ga (kg/ 100 m²) | Percentage of Total Mass | Amount - 6" thick panel, 22 / 22 ga (kg/ 100 m²) | Percentage of Total Mass |
|---|---|---|---|---|
| **Insulated Metal Panel** | | | | |
| Steel | 879 | 81% | 1,372 | 70% |
| Foam | 205 | 19% | 576 | 30% |
| Coating | 3.38 | <1% | 3.38 | <1% |
| **Total** | **1,087** | **100%** | **1,951** | **100%** |
| **Packaging** | | | | |
| Oriented strand board | 33.0 | 90.5% | 33.0 | 90.5% |
| Polystyrene | 3.5 | 9.5% | 3.5 | 9.5% |
| Plastic film | 0.007 | <1% | 0.007 | <1% |
| **Total Packaging** | **36.5** | **100%** | **36.5** | **100%** |

Note: Products under study do not contain any regulated hazardous substances or dangerous substances per definitions of the same in North America.

### *2.6 Manufacturing*

The manufacturing process begins with the mining/ processing of raw materials, which is a mixture composed mostly of steel, polyisocyanurate and some coating. In the continuous process method of producing insulated metal panels (see Figure 1), metal facers (here referred to as external and internal steel sheets) are continuously formed. Simultaneously, at another point on the continuous line, the foam mixture is injected into the panel assembly. The foam then expands and fills the cavity between the metal skins as they enter a platen conveyor. The panels are trimmed and embossed, after which the top and bottom edge details are profiled. Following this, they undergo a curing process and are cut to standard or customized lengths. Once cured, the panels are cooled, stacked, and packaged for shipping.

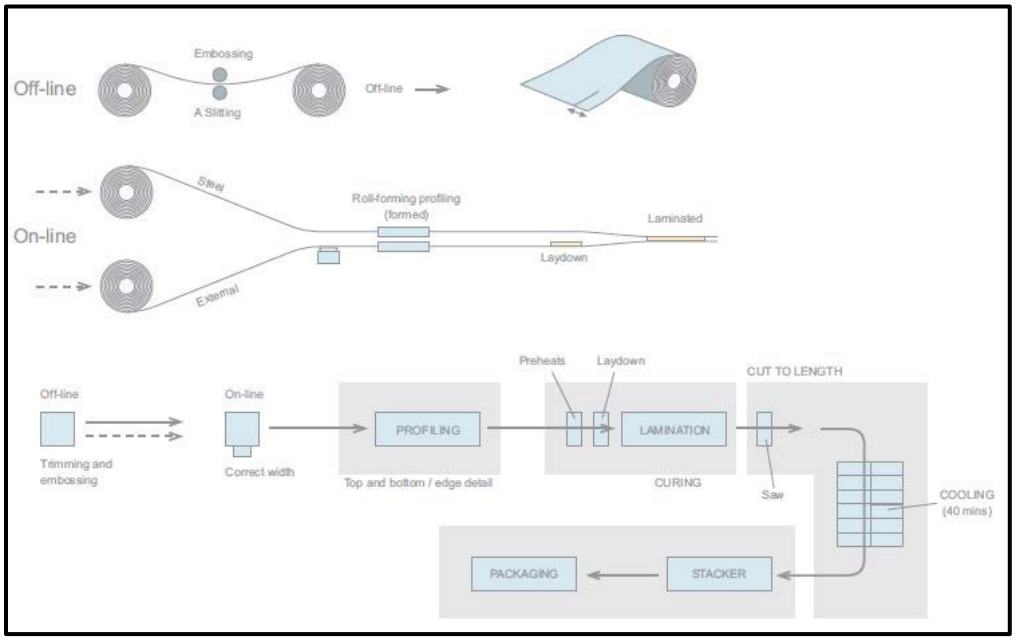



*Figure 1: Schematic of continuous manufacturing process for insulated metal panels*

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### *2.7 Transportation*

The product is delivered to the customer via truck depending on the location of the end-user. Transport to the installation site was calculated based on sales records per product and an average shipping distance based on manufacturing location, as provided by AWIP.

### *2.8 Product Installation*

The installation instructions require the use of white butyl caulk and some steel trim, clips and fasteners for recommended installation. From the installation instructions, it is understood that there is a forklift and panel cutting equipment that is used during installation as well. However, due to limited data availability on the amount of resources (here, electricity and diesel) used for these operations, quantities recommended by the PCR (Part B) have been used.

### *2.9 Packaging*

Once the panels are manufactured, foam sheets are layered between insulated metal panels before the panels are bundled and stacked on wooden pallets. The pallets are then buffered with foam and wrapped in plastic film to prevent damage during transportation.

### *2.10 Use Conditions*

The panels are cleaned twice a year for wall applications with 500 ml of 1% (v/v) sodium lauryl sulfate solution. Cleaning frequency and material amount recommendations are taken from Part B of the PCR. More information is provided in the table below.

*Table 3: Items Included in Life Cycle Stages B1-B7*

| Included | Excluded |
|---|---|
| Energy, materials, and water related to the usage of the product, including product operation, cleaning, and maintenance. | Production of multi-use cleaning, repair, installation, and maintenance tools |
| Energy, materials, and water related to the upkeep of the product, including product repair, refurbishment, and replacement. | |
| Production, transport, and waste processing and disposal of the new product after replacement to meet the required functional unit | |

### *2.11 Reference Service Life*

The Reference Service Life (RSL) of the Insulated Metal Panels is taken to be 30 years. Therefore, 1.5 replacements after the first installation are needed over the estimate service life of a building (75 years). More information is provided in Table 6: Reference Service Life.

### *2.12 Re-Use Phase*

Insulated panels are typically not re-used after their service life.

### *2.13 Disposal*

All waste has been classified and modeled according to regional-specific legislation as required in Section 2.8.6 in Part A: Life Cycle Assessment Calculation rules and Report Requirements from UL Environment.

AWIP has designed their insulated metal panels for disassembly and the metal panel can be separated from the insulation core. After separation, the metal panels can be recycled through locally available metal recycling facilities and the insulation core can be reused as stand-alone insulation.

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# 3. LCA: Calculation Rules

### *3.1 Functional Unit*

The functional unit used in the study, as specified in the PCR, is coverage of 100 $m^2$ of panel surface over 75 years. The reference flow of the product system, which is the mass of 100 $m^2$ of insulated metal panel is 1,087 kg for the lightest configuration (2" thick panel, 26 / 26 ga) and 1,951 kg for the heaviest configuration (6" thick panel, 22 / 22 ga).

### *3.2 System Boundary*

The scope of the EPD is cradle-to-grave, including raw material extraction and processing, transportation, product manufacture, product delivery, installation and use, and product disposal.

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

MND = Module Not Declared

### *3.3 Units*

All results are presented using SI units using three significant figures, as per PCR guidance.

### *3.4 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. The primary data was collected as annual totals including all utility usage and production information. For the study, the usage information was divided by the production to create an energy and water use per square meter, then extrapolated to 100 square meters. Another assumption is that the installation tools are used enough times that the per square meter impacts are negligible.

It should also be noted that LCA results are relative expressions and do not predict impacts on category endpoints, the exceeding of thresholds, safety margins or risks.

The PCR allows for the results for several inventory flows related to construction products to be reported as "other parameters". These are aggregated inventory flows and do not characterize any potential impact; results should be interpreted taking into account this limitation.

### *3.5 Cut-off criteria*

According to the PCR, processes contributing greater than 1% of the total environmental impact indicator for each impact are included in the inventory. 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. Cumulative excluded material inputs and

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environmental impacts are less than 5% based on total weight of the functional unit. No known flows are deliberately excluded from this LCA.

### *3.6 Data Sources*

Primary data were provided by AWIP for the product bill of materials and manufacturing at their Vacaville, CA facility, as well as from their suppliers of steel coil for the metal panel products. The sources of secondary LCI data are Sphera Managed LCA Content (MLC) version 2022.1.

### *3.7 Data Quality*

The geographic 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.

The primary data provided by the manufacturer represents all information for 2024. Using this data meets the PCR requirements. Time coverage of this data is considered excellent. Primary data provided by the manufacturer are specific to the technology that AWIP uses to manufacture their product. They are site-specific and considered of excellent quality.

Supplier EPDs were utilized for representing upstream steel coil production. This data represents the technology specific to the suppliers and technological representativeness of this data is considered excellent. Geographic coverage of this data is considered excellent. Time coverage of EPDs ranges from 2019 to 2021 and is considered of very good quality. All majority of steel supplier EPDs reported product- and site-specific results for LCIA impact categories. Supplier EPDs used consistent PCRs and LCIA methodologies for global warming potential and other LCA impact categories. However, the LCA modeling software and databases used were not consistent across supplier EPDs. Use of consistent LCA software and background LCA data would improve the consistency of this LCA.

It is worth noting that the electricity and thermal energy used in manufacturing the product includes overhead energy such as lighting and heating. Sub-metering would improve the technological coverage of data quality.

### *3.7 Period under review*

This EPD is based on data for 2024.

### *3.9 Allocation*

General principles of allocation were based on ISO 14040/44. There are no products other than insulated metal panels that are produced as part of the manufacturing processes studied in the LCA. Since there are no co-products, no allocation based on co-products is required. To derive a per unit value for manufacturing inputs such as electricity, natural gas and water, allocation based on total production in square meters (allocation by area) was adopted. Discussions with AWIP staff divulged this was a more representative way than via mass to allocate the manufacturing inputs based on the manufacturing processes used and the types of products created. As a default, secondary GaBi datasets use a physical mass basis for allocation. Impacts from transportation were allocated based on the mass of material and distance transported.

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.

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In consideration of the wide range of configurations available based on foam thickness and combinations of internal and external steel facing gauges, results are presented for the lightest (2" thick panel, 26 / 26 ga) and heaviest weight (6" thick panel, 22 / 22 ga) configurations. In this way, the range of results covers the wide range of product configurations.

### *3.10 Comparability*

The PCR this EPD was based on was not written to support comparative assertions. EPDs based on different PCRs, or different calculation models, may not be comparable. When attempting to compare EPDs or life cycle impacts of products from different companies, the user should be aware of the uncertainty in the final results, due to and not limited to, the practitioner's assumptions, the source of the data used in the study, and the specifics of the product modeled. Comparison of the environmental performance of insulated metal panels using EPD information shall be based on the product's use and impacts at the construction works level, and therefore EPDs may not be used for comparability purposes when not considering the construction works energy use phase as instructed under this PCR. Full conformance with the PCR for insulated metal panels allows EPD comparability only when all stages of a life cycle have been considered, when they comply with all referenced standards, use the same sub-category Part B PCR, and use equivalent scenarios with respect to construction works. However, variation and deviations are possible.

## 4. LCA: Scenarios and Additional Technical Information

### *4.1 Delivery and Installation stage (A4 - A5)*

*Table 4: Transport to building site (A4) – per 100 m²*

| Name | Insulated Metal Panel | Unit |
|---|---|---|
| Fuel type | Diesel | - |
| Liters of fuel | 39 | l/100km |
| Vehicle type | Truck - Heavy Heavy-duty Diesel Truck / 53,333 lb payload - 8b | - |
| Transport distance (Average) | 1,520 | km |
| Capacity utilization | 78 | % |
| Weight of products transported | 950 - 1,846 | kg/100 $m^2$ |
| Volume of products transported | 5.08 - 15.24 | $m^3$/100 $m^2$ |
| Capacity utilization volume factor | 1 | - |

*Table 5: Reference Service Life*

| Name | Insulated metal roof deck panel | Unit |
|---|---|---|
| RSL | 30 | years |
| Declared product properties and finishes, etc. | See Technical Data | - |
| Design application | Installation per recommendation by manufacturer | - |
| An assumed quality of work, when installed in accordance with the manufacturer's instructions | Accepted industry standard | - |
| Use conditions | Normal building operating conditions | - |

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*Table 6: Installation into the building (A5) – per 100 m²*

| Name | Quantity | Unit |
|---|---|---|
| White butyl caulk | 15.3 | kg/100 $m^2$ |
| Steel trims and fasteners | 3.57 | kg/100 $m^2$ |
| Electricity | 2 | kWh/100 $m^2$ |
| Diesel | 3.15 | kg/100 $m^2$ |
| Installation scrap rate | 5% | % |
| Waste materials at the construction site before waste processing, generated by product installation | 81.7 - 124 | kg/100 $m^2$ |
| Product loss per functional unit, to landfill | 45.2 – 87.9 | kg/100 $m^2$ |
| Packaging waste, wood | 33 | kg/100 $m^2$ |
| Packaging waste, plastic film, polystyrene, stretch wrap | 3.48 | kg/100 $m^2$ |
| Biogenic carbon contained in packaging | 52.5 | kg $CO_2$ |
| Direct emissions to ambient air, soil and water | 0 | kg |
| VOC emissions | N/A | µg/$m^3$ |

### *4.2 Use stage (B1)*

There are no inputs needed to use the product.

### *4.3 Maintenance stage (B2)*

*Table 7: Maintenance per 100 m² (B2)*

| Name | Truck | Unit |
|---|---|---|
| Maintenance process information | Use phase parameters as recommended by the UL PCR Part B | |
| Cleaning | 30, 75 | Cycles/ RSL and Cycles/ ESL |
| Detergent | 0.0025 | kg/ 100 $m^2$/ cleaning cycle |
| Net freshwater consumption specified by water source and fate | 0.25<br>tap water, evaporated | kg/ 100 $m^2$/ cleaning cycle |
| Further assumptions for scenario development | 500 ml of 1% (v/v) sodium lauryl sulfate solution, once per year | |

### *4.4 Repair/Refurbishment stage (B3, B4, B5)*

Insulated metal panels typically do not require repair or refurbishment during the service life of the building. 1.5 replacements are required over the 75-year lifetime of the building.

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*Table 8: Repair (B3)*

| Name | Value | Units |
|---|---|---|
| Repair process information | n/a | - |
| Inspection process information | n/a | - |
| Repair cycle | n/a | Cycles / RSL |
| Repair cycle | n/a | Cycles / ESL |
| Net freshwater consumption | n/a | $m^3$ |
| Ancillary materials | n/a | kg |
| Energy input | n/a | kWh |
| Waste materials from repair | n/a | kg |
| Direct emissions to ambient air, soil, and water | n/a | kg |
| Further assumptions for scenario development | n/a | - |

*Table 9: Replacement (B4)*

| Name | Value | Units |
|---|---|---|
| Reference Service Life | 30 | Years |
| Replacement cycle | 1.5 | (ESL/RSL) – 1 |
| Energy input – Electricity | 2 | kWh / replacement |
| Energy input – Diesel | 3.15 | kg / replacement |
| Net fresh water consumption | 0 | $m^3$ |
| Ancillary materials - White butyl caulk | 15.3 | kg / replacement |
| Ancillary materials - Steel trims and fasteners | 3.57 | kg / replacement |
| Replacement of worn parts, specify parts/materials | 0 | kg |
| Direct emissions to ambient air, soil, and water | 0 | kg |
| Further assumptions for scenario development | n/a | - |
| Waste generated after each replacement | 1178 - 2085 | kg / replacement |

*Table 10: Refurbishment (B5)*

| Name | Value | Units |
|---|---|---|
| Refurbishment process description | n/a | - |
| Replacement cycle | n/a | Cycles / RSL |
| Replacement cycle | n/a | Cycles / ESL |
| Energy input | n/a | kWh |
| Net fresh water consumption | n/a | $m^3$ |
| Material input for refurbishment | n/a | kg |
| Waste materials | n/a | kg |
| Direct emissions to ambient air, soil, and water | n/a | kg |
| Further assumptions for scenario development | n/a | - |

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### *4.5 Building operation stage (B6 – B7)*

No operational energy or water use is required.

***Table 11: Operational energy use (B6) and Operational water use***

| Name | Value | Units |
|---|---|---|
| Net fresh water consumption | n/a | $m^3$ |
| Ancillary materials | n/a | kg |
| Energy input | n/a | kWh |
| Power output of equipment | n/a | kW |
| Characteristic performance | n/a | - |
| Direct emissions to ambient air, soil, and water | n/a | kg |
| Further assumptions for scenario development | n/a | - |

### *4.6 Disposal stage (C1 - C4)*

***Table 12: Disposal per 100 m² (C1-C4)***

| Name | | 2" thick panel, 26 / 26 ga | 6" thick panel, 22 / 22 ga | Unit |
|---|---|---|---|---|
| Diesel for deconstruction | | 1.00 | 1.00 | gal |
| Electricity for deconstruction | | 2.00 | 2.00 | kWh |
| Assumptions for scenario development | | Product is landfilled at end of life | | |
| Collection process | Collected separately | 0 | 0 | kg |
| | Collected with mixed construction waste | 905 | 1,758 | kg |
| Recovery | Reuse | 0 | 0 | kg |
| | Recycling | 0 | 0 | kg |
| | Landfill | 905 | 1,758 | kg |
| | Incineration | 0 | 0 | kg |
| | Incineration with energy recovery | 0 | 0 | kg |
| | Energy conversion efficiency rate | n/a | n/a | % |
| Disposal | Product or material for final deposition | 905 | 1,758 | kg |

AWIP has designed their Insulated Metal Panels for disassembly and the metal panel can be separated from the insulation core. After separation, the metal panels can be recycled through locally available metal recycling facilities and the insulation core can be reused as stand-alone insulation.

However, all waste has been classified and modeled according to regional-specific legislation as required in Section 2.8.6 in Part A: Life Cycle Assessment Calculation rules and Report Requirements from UL Environment due to unavailability of data to support the fact that the disposal pathway is standard practice for insulated metal panels.

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# 5. LCA: Results

Results are reported in this section for North America using IPCC AR6 for global warming potential, TRACI 2.1 for acidification, eutrophication, ozone depletion, and smog formation potential, and CML 2001 – August 2016 for abiotic depletion of fossil resources. Global warming potential results exclude biogenic carbon. Since GWP is reported excluding biogenic carbon, indicators pertaining to the uptake and emissions of biogenic carbon dioxide are not reported.

The six impact categories reported 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.

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### *5.1 Results for 100 m² of 2" thick insulated metal panels with 26 ga facings on both sides (lightest configuration)*

Results for 2" thick insulated metal panel with 26 ga facings on both sides (lightest product) over 75 years. All values are rounded to three significant digits. Results reported in MJ are calculated using lower heating value.

| Impact Category | Unit | A1-A3 | A4 | A5 | B1 | B2 | B3 | B4 | B5 | B6 | B7 | C1 | C2 | C3 | C4 | D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GWP | kg $CO_2$ eq. | 2.46E+03 | 1.08E+02 | 2.02E+02 | 0.00E+00 | 1.23E-02 | 0.00E+00 | 4.23E+03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.41E+01 | 4.56E+00 | 0.00E+00 | 3.89E+01 | MND |
| AP | kg SO2 eq. | 6.50E+00 | 5.38E-01 | 7.61E-01 | 0.00E+00 | 1.66E-05 | 0.00E+00 | 1.20E+01 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.22E-01 | 2.29E-02 | 0.00E+00 | 1.69E-01 | MND |
| EP | kg N eq. | 4.20E-01 | 4.70E-02 | 9.64E-02 | 0.00E+00 | 1.45E-06 | 0.00E+00 | 8.62E-01 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 9.35E-03 | 2.00E-03 | 0.00E+00 | 9.42E-03 | MND |
| ODP | kg CFC-11 eq. | 2.42E-08 | 2.04E-13 | 1.58E-09 | 0.00E+00 | 1.87E-16 | 0.00E+00 | 3.86E-08 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 4.86E-14 | 8.70E-15 | 0.00E+00 | 1.25E-12 | MND |
| SFP | kg $O_3$ eq. | 1.05E+02 | 1.24E+01 | 1.19E+01 | 0.00E+00 | 3.93E-04 | 0.00E+00 | 2.00E+02 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 4.26E+00 | 5.29E-01 | 0.00E+00 | 2.97E+00 | MND |
| $ADP_{fossil}$ | MJ | 3.90E+04 | 1.51E+03 | 2.79E+03 | 0.00E+00 | 3.02E-01 | 0.00E+00 | 6.59E+04 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.96E+02 | 6.43E+01 | 0.00E+00 | 5.79E+02 | MND |
| *Resource Use* | | | | | | | | | | | | | | | | |
| RPRE | MJ, LHV | 2.93E+03 | 5.90E+01 | 1.79E+02 | 0.00E+00 | 8.30E-03 | 0.00E+00 | 4.84E+03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 8.51E+00 | 2.52E+00 | 0.00E+00 | 5.55E+01 | MND |
| RPRM | MJ, LHV | 5.94E+02 | 0.00E+00 | 2.97E+01 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 9.35E+02 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | MND |
| NRPRE | MJ, LHV | 4.00E+04 | 1.52E+03 | 2.86E+03 | 0.00E+00 | 3.11E-01 | 0.00E+00 | 6.75E+04 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.98E+02 | 6.48E+01 | 0.00E+00 | 5.92E+02 | MND |
| NRPRM | MJ, LHV | 5.78E+03 | 0.00E+00 | 2.89E+02 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 9.11E+03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | MND |
| SM | kg | 1.25E+01 | 0.00E+00 | 6.24E-01 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.96E+01 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | MND |
| RSF | MJ, LHV | 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 | MND |
| NRSF | MJ, LHV | 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 | MND |
| RE | MJ, LHV | 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 | MND |
| FW | m3 | 9.16E+02 | 2.12E-01 | 4.59E+01 | 0.00E+00 | 4.41E-04 | 0.00E+00 | 1.44E+03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.89E-02 | 9.06E-03 | 0.00E+00 | 8.50E-02 | MND |
| *Output Flows* | | | | | | | | | | | | | | | | |
| HWD | kg | 2.27E-01 | 0.00E+00 | 1.14E-02 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 3.58E-01 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | MND |
| NHWD | kg | 5.36E+01 | 0.00E+00 | 8.48E+01 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.59E+03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 9.24E+02 | MND |
| HLRW | kg | 4.52E-04 | 4.98E-06 | 2.96E-05 | 0.00E+00 | 4.24E-09 | 0.00E+00 | 7.39E-04 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.16E-06 | 2.13E-07 | 0.00E+00 | 5.92E-06 | MND |
| ILLRW | kg | 3.80E-01 | 4.20E-03 | 2.48E-02 | 0.00E+00 | 3.55E-06 | 0.00E+00 | 6.21E-01 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 9.71E-04 | 1.79E-04 | 0.00E+00 | 5.19E-03 | MND |
| 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 | MND |
| MR | kg | 9.13E+01 | 0.00E+00 | 5.08E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.45E+02 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | MND |
| MER | 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 | MND |
| EEE | MJ | 4.02E+01 | 0.00E+00 | 2.01E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 6.33E+01 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | MND |
| EET | MJ | 1.62E+01 | 0.00E+00 | 8.11E-01 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.55E+01 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | MND |

MND = Module not declared

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### *5.2 Results for 100 m² of 6" thick insulated metal panels with 22 ga facings on both sides (heaviest configuration)*

Results for 6" thick insulated metal panel with 22 ga facings on both sides (heaviest product) over 75 years. All values are rounded to three significant digits. Results reported in MJ are calculated using lower heating value.

| Impact Category | Unit | A1-A3 | A4 | A5 | B1 | B2 | B3 | B4 | B5 | B6 | B7 | C1 | C2 | C3 | C4 | D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GWP | kg $CO_2$ eq. | 4.76E+03 | 2.06E+02 | 3.23E+02 | 0.00E+00 | 1.23E-02 | 0.00E+00 | 8.06E+03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.41E+01 | 8.78E+00 | 0.00E+00 | 7.49E+01 | MND |
| AP | kg SO2 eq. | 1.26E+01 | 1.03E+00 | 1.10E+00 | 0.00E+00 | 1.66E-05 | 0.00E+00 | 2.26E+01 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.22E-01 | 4.41E-02 | 0.00E+00 | 3.25E-01 | MND |
| EP | kg N eq. | 8.34E-01 | 8.95E-02 | 1.20E-01 | 0.00E+00 | 1.45E-06 | 0.00E+00 | 1.60E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 9.35E-03 | 3.86E-03 | 0.00E+00 | 1.81E-02 | MND |
| ODP | kg CFC-11 eq. | 2.53E-08 | 3.88E-13 | 1.63E-09 | 0.00E+00 | 1.87E-16 | 0.00E+00 | 4.04E-08 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 4.86E-14 | 1.67E-14 | 0.00E+00 | 2.39E-12 | MND |
| SFP | kg $O_3$ eq. | 2.07E+02 | 2.37E+01 | 1.78E+01 | 0.00E+00 | 3.93E-04 | 0.00E+00 | 3.83E+02 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 4.26E+00 | 1.02E+00 | 0.00E+00 | 5.72E+00 | MND |
| $ADP_{fossil}$ | MJ | 8.45E+04 | 2.87E+03 | 5.16E+03 | 0.00E+00 | 3.02E-01 | 0.00E+00 | 1.41E+05 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.96E+02 | 1.24E+02 | 0.00E+00 | 1.11E+03 | MND |
| *Resource Use* | | | | | | | | | | | | | | | | |
| RPRE | MJ, LHV | 4.24E+03 | 1.12E+02 | 2.50E+02 | 0.00E+00 | 8.30E-03 | 0.00E+00 | 7.07E+03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 8.51E+00 | 4.85E+00 | 0.00E+00 | 1.07E+02 | MND |
| RPRM | MJ, LHV | 5.94E+02 | 0.00E+00 | 2.97E+01 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 9.35E+02 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | MND |
| NRPRE | MJ, LHV | 8.66E+04 | 2.89E+03 | 5.28E+03 | 0.00E+00 | 3.11E-01 | 0.00E+00 | 1.44E+05 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.98E+02 | 1.25E+02 | 0.00E+00 | 1.14E+03 | MND |
| NRPRM | MJ, LHV | 1.71E+04 | 0.00E+00 | 8.53E+02 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.69E+04 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | MND |
| SM | kg | 3.74E+01 | 0.00E+00 | 1.87E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 5.89E+01 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | MND |
| RSF | MJ, LHV | 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 | MND |
| NRSF | MJ, LHV | 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 | MND |
| RE | MJ, LHV | 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 | MND |
| FW | m3 | 1.53E+03 | 4.04E-01 | 7.67E+01 | 0.00E+00 | 4.41E-04 | 0.00E+00 | 2.41E+03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.89E-02 | 1.74E-02 | 0.00E+00 | 1.63E-01 | MND |
| *Output Flows* | | | | | | | | | | | | | | | | |
| HWD | kg | 2.27E-01 | 0.00E+00 | 1.14E-02 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 3.58E-01 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | MND |
| NHWD | kg | 8.45E+01 | 0.00E+00 | 1.29E+02 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.99E+03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.78E+03 | MND |
| HLRW | kg | 8.98E-04 | 9.50E-06 | 5.24E-05 | 0.00E+00 | 4.24E-09 | 0.00E+00 | 1.46E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.16E-06 | 4.09E-07 | 0.00E+00 | 1.14E-05 | MND |
| ILLRW | kg | 7.55E-01 | 8.00E-03 | 4.39E-02 | 0.00E+00 | 3.55E-06 | 0.00E+00 | 1.23E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 9.71E-04 | 3.45E-04 | 0.00E+00 | 9.99E-03 | MND |
| 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 | MND |
| MR | kg | 1.50E+02 | 0.00E+00 | 8.02E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.37E+02 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | MND |
| MER | 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 | MND |
| EEE | MJ | 4.02E+01 | 0.00E+00 | 2.01E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 6.33E+01 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | MND |
| EET | MJ | 1.62E+01 | 0.00E+00 | 8.11E-01 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.55E+01 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | MND |

MND = Module not declared

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### *5.3 GWP Results for 100 m² of insulated metal panel for common product configurations.*

GWP results for common product configurations, based on foam thickness and interior/exterior steel gauge.

| Foam Thickness (in.) | Int. Steel Gauge | Ext. Steel Gauge | A1-A3 | A4 | A5 | B1 | B2 | B3 | B4 | B5 | B6 | B7 | C1 | C2 | C3 | C4 | D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | 24 | 26 | 2.76E+03 | 1.20E+02 | 2.17E+02 | 0.00E+00 | 1.23E-02 | 0.00E+00 | 4.72E+03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.41E+01 | 5.12E+00 | 0.00E+00 | 4.36E+01 | MND |
| 2 | 22 | 26 | 3.05E+03 | 1.34E+02 | 2.33E+02 | 0.00E+00 | 1.23E-02 | 0.00E+00 | 5.21E+03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.41E+01 | 5.71E+00 | 0.00E+00 | 4.87E+01 | MND |
| 3 | 26 | 26 | 2.61E+03 | 1.12E+02 | 2.09E+02 | 0.00E+00 | 1.23E-02 | 0.00E+00 | 4.46E+03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.41E+01 | 4.75E+00 | 0.00E+00 | 4.05E+01 | MND |
| 3 | 24 | 26 | 2.90E+03 | 1.26E+02 | 2.25E+02 | 0.00E+00 | 1.23E-02 | 0.00E+00 | 4.95E+03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.41E+01 | 5.35E+00 | 0.00E+00 | 4.56E+01 | MND |
| 3 | 22 | 26 | 3.19E+03 | 1.40E+02 | 2.40E+02 | 0.00E+00 | 1.23E-02 | 0.00E+00 | 5.44E+03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.41E+01 | 5.95E+00 | 0.00E+00 | 5.07E+01 | MND |
| 3 | 26 | 26 | 2.75E+03 | 1.17E+02 | 2.16E+02 | 0.00E+00 | 1.23E-02 | 0.00E+00 | 4.69E+03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.41E+01 | 4.99E+00 | 0.00E+00 | 4.25E+01 | MND |
| 3 | 24 | 26 | 3.04E+03 | 1.31E+02 | 2.32E+02 | 0.00E+00 | 1.23E-02 | 0.00E+00 | 5.18E+03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.41E+01 | 5.58E+00 | 0.00E+00 | 4.76E+01 | MND |
| 3 | 22 | 26 | 3.33E+03 | 1.45E+02 | 2.48E+02 | 0.00E+00 | 1.23E-02 | 0.00E+00 | 5.68E+03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.41E+01 | 6.18E+00 | 0.00E+00 | 5.27E+01 | MND |
| 4 | 26 | 26 | 3.03E+03 | 1.28E+02 | 2.31E+02 | 0.00E+00 | 1.23E-02 | 0.00E+00 | 5.16E+03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.41E+01 | 5.45E+00 | 0.00E+00 | 4.65E+01 | MND |
| 4 | 24 | 26 | 3.32E+03 | 1.42E+02 | 2.47E+02 | 0.00E+00 | 1.23E-02 | 0.00E+00 | 5.65E+03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.41E+01 | 6.05E+00 | 0.00E+00 | 5.16E+01 | MND |
| 4 | 22 | 26 | 3.61E+03 | 1.56E+02 | 2.62E+02 | 0.00E+00 | 1.23E-02 | 0.00E+00 | 6.14E+03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.41E+01 | 6.65E+00 | 0.00E+00 | 5.67E+01 | MND |
| 5 | 26 | 26 | 3.17E+03 | 1.34E+02 | 2.39E+02 | 0.00E+00 | 1.23E-02 | 0.00E+00 | 5.39E+03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.41E+01 | 5.69E+00 | 0.00E+00 | 4.85E+01 | MND |
| 5 | 24 | 26 | 3.46E+03 | 1.48E+02 | 2.54E+02 | 0.00E+00 | 1.23E-02 | 0.00E+00 | 5.88E+03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.41E+01 | 6.29E+00 | 0.00E+00 | 5.36E+01 | MND |
| 5 | 22 | 26 | 3.75E+03 | 1.62E+02 | 2.70E+02 | 0.00E+00 | 1.23E-02 | 0.00E+00 | 6.38E+03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.41E+01 | 6.88E+00 | 0.00E+00 | 5.87E+01 | MND |
| 5 | 26 | 26 | 3.31E+03 | 1.39E+02 | 2.46E+02 | 0.00E+00 | 1.23E-02 | 0.00E+00 | 5.62E+03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.41E+01 | 5.92E+00 | 0.00E+00 | 5.05E+01 | MND |
| 5 | 24 | 26 | 3.60E+03 | 1.53E+02 | 2.62E+02 | 0.00E+00 | 1.23E-02 | 0.00E+00 | 6.12E+03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.41E+01 | 6.52E+00 | 0.00E+00 | 5.56E+01 | MND |
| 5 | 22 | 26 | 3.89E+03 | 1.67E+02 | 2.77E+02 | 0.00E+00 | 1.23E-02 | 0.00E+00 | 6.61E+03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.41E+01 | 7.12E+00 | 0.00E+00 | 6.07E+01 | MND |
| 6 | 26 | 26 | 3.59E+03 | 1.50E+02 | 2.61E+02 | 0.00E+00 | 1.23E-02 | 0.00E+00 | 6.09E+03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.41E+01 | 6.39E+00 | 0.00E+00 | 5.45E+01 | MND |
| 6 | 24 | 26 | 3.88E+03 | 1.64E+02 | 2.76E+02 | 0.00E+00 | 1.23E-02 | 0.00E+00 | 6.58E+03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.41E+01 | 6.99E+00 | 0.00E+00 | 5.96E+01 | MND |
| 6 | 22 | 26 | 4.17E+03 | 1.78E+02 | 2.92E+02 | 0.00E+00 | 1.23E-02 | 0.00E+00 | 7.07E+03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.41E+01 | 7.58E+00 | 0.00E+00 | 6.47E+01 | MND |
| 8 | 26 | 26 | 4.15E+03 | 1.72E+02 | 2.90E+02 | 0.00E+00 | 1.23E-02 | 0.00E+00 | 7.02E+03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.41E+01 | 7.32E+00 | 0.00E+00 | 6.25E+01 | MND |
| 8 | 24 | 26 | 4.44E+03 | 1.86E+02 | 3.06E+02 | 0.00E+00 | 1.23E-02 | 0.00E+00 | 7.51E+03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.41E+01 | 7.92E+00 | 0.00E+00 | 6.75E+01 | MND |
| 8 | 22 | 26 | 4.73E+03 | 2.00E+02 | 3.22E+02 | 0.00E+00 | 1.23E-02 | 0.00E+00 | 8.01E+03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.41E+01 | 8.52E+00 | 0.00E+00 | 7.26E+01 | MND |

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## 6. LCA: Interpretation

Overall, for AWIP's insulated metal panel products, GWP and Abiotic Depletion of fossil fuels are the impact categories of most significance. Within these impact categories, the majority of impacts are aggregated in the A1-A3 and B4 phases of the life cycle of the product. A1-A3 includes raw material sourcing, transportation, and manufacturing, and B4 includes the impacts associated with necessary replacements. The next largest life cycle stage is A5 in terms of GWP which is installation at customer's job site.

For insulated metal panels, in the raw material sourcing and manufacturing stages, the largest contributors to the impacts are the raw materials, mainly the steel sheet used in the product.

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# 7. Additional Environmental Information

### *7.1 Environment and Health during Manufacture*

AWIP has established Environmental, Health and Safety programs to ensure all federal, state, and local regulations are met or exceeded.

### *7.2 Environment and Health during Installation*

Onsite personnel shall follow the appropriate safety protocols as determined by the relevant governing bodies. All Weather Insulated Panels recommends the use of suction lifters during installation, to maximize safety and minimize undue manual handling. All personnel performing installation tasks should wear proper clothing and protective equipment at all times. There are no harmful substances or emissions from the installation of this product.

### *7.3 Extraordinary Effects*

#### Fire

Fire testing and approvals for all products included in the study are listed below. For further fire testing results, please visit the resource library for specific products here *https://www.awipanels.com/products/*.

| Test | Test Title | Results |
|---|---|---|
| FM 4880 | Class 1 Fire Rating of Insulated Wall, Ceiling and Roof Panels | Passed: Class 1 Fire Rating of Building Panels or Interior Finish Material |

#### Water

For water penetration testing results, please visit the resource library for specific products here *https://www.awipanels.com/products/*.

#### Mechanical Destruction

If the product is mechanically destroyed, it should be disposed of using standard procedures and replaced promptly.

### *7.4 Environmental Activities and Certifications*

AWIP is deeply committed to operating a sustainable business that provides innovative and adaptable energy-efficient building solutions to help accelerate a zero-emissions future for our planet. This is embodied through AWIP's global sustainability program, Planet Passionate, which is an ambitious 10-year global sustainability program that aims to impact three big global issues:

- Climate Change
- Circularity
- Protection of our natural world

AWIP has already made significant strives to drive energy and carbon out of our business and supply chain. This has been achieved through electrification, energy efficiency and onsite generation projects.

We also contribute to the Circular economy by introducing recycled materials to our products and eliminating waste to landfill from our business operations by 2030.

To learn more about AWIP's sustainability programs please visit *https://www.awipanels.com/sustainability/*.

### *7.5 Further Information*

For further information on the products detailed in this report, please visit: *https://www.awipanels.com.*

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