



# ENVIRONMENTAL PRODUCT DECLARATION



## Gold Bond® Gridstone® Gypsum Ceiling Panels

Rotan, TX

EPD Registration Number: EPD11340  
Version Date: September 11, 2026  
Validity Date: September 10, 2031



In accordance with ISO 14025 and ISO 21930:2017  
Smart EPD® Part A PCR for Building and Construction Products  
and Services, Standard 1000, v 1.2, March 14, 2025  
Smart EPD® Part B PCR for Gypsum Panels, Standard 1000-004  
v.2, February 24, 2025



National Gypsum Company is the exclusive service provider for  
products manufactured by Gold Bond Building Products, LLC.

## General Information

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                    |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Program Operator                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | NSF Certification LLC<br>789 N. Dixboro, Ann Arbor, MI 48105<br><a href="http://www.nsf.org">www.nsf.org</a>                                                                                                                                                                                                                                       |
| Manufacturer Name and Address                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Gold Bond Building Products, LLC<br>2001 Rexford Road<br>Charlotte, NC 28211<br><a href="mailto:chrisw@nationalgypsum.com">chrisw@nationalgypsum.com</a>                                                                                                                                                                                           |
| EPD Registration Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | EPD11340                                                                                                                                                                                                                                                                                                                                           |
| Declared Product                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Gold Bond® Gridstone® Gypsum Ceiling Panels, Rotan, TX plant                                                                                                                                                                                                                                                                                       |
| Functional Unit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 92.9 m <sup>2</sup> (1,000 square feet) of installed product with an RSL of 75 years                                                                                                                                                                                                                                                               |
| Reference PCR and Version Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | ISO 21930:2017<br>Smart EPD® Part A PCR for Building and Construction Products and Services, Standard 1000, v 1.2, March 14, 2025<br>Smart EPD® Part B PCR for Gypsum Panels, Standard 1000-004 v.2, February 24, 2025 (Sub-category PCR review conducted by: Jack Geibig, Ecoform, <a href="mailto:jgeibig@ecoform.com">jgeibig@ecoform.com</a> ) |
| Product's Intended Application and Use                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Commercial and residential                                                                                                                                                                                                                                                                                                                         |
| Product RSL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 75 Years                                                                                                                                                                                                                                                                                                                                           |
| Markets of Applicability                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | North America                                                                                                                                                                                                                                                                                                                                      |
| Version Date                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | September 11, 2026                                                                                                                                                                                                                                                                                                                                 |
| Period of Validity                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 5 years from date of issue                                                                                                                                                                                                                                                                                                                         |
| EPD Type                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Product Specific                                                                                                                                                                                                                                                                                                                                   |
| EPD Scope                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Cradle-to-grave                                                                                                                                                                                                                                                                                                                                    |
| Year of Reported Manufacturer Primary Data                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 2025                                                                                                                                                                                                                                                                                                                                               |
| LCA Software and Version Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Sphera LCA for Experts 10.9                                                                                                                                                                                                                                                                                                                        |
| LCI Database and Version Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Sphera Managed LCA Content CUP 2026.1                                                                                                                                                                                                                                                                                                              |
| LCIA Methodology and Version Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | IPCC AR6 and TRACI 2.2                                                                                                                                                                                                                                                                                                                             |
| Independent, third-party verification of the declaration and data, according to ISO 14040 (2006), ISO 14025 (2006), 14025 (2006), EN 15804+A2, ISO 21930, and PCR 2019:14, which serves as the core PCR.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <br>Third-party verifier: Jack Geibig, Ecoform, <a href="mailto:jgeibig@ecoform.com">jgeibig@ecoform.com</a>                                                                                                                                                    |
| This life cycle assessment was conducted in accordance with ISO 14044, EN 15804+A2, ISO 21930, and the reference PCR by:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Maggie Wildnauer and Isabel Oskwarek ( <a href="mailto:info@wapsustainability.com">info@wapsustainability.com</a> ) at WAP Sustainability (part of SLR) (1701 Market St, Chattanooga, TN 37408) commissioned by National Gypsum Company<br>                   |
| <p><i>The EPD owner has the sole ownership, liability, and responsibility for the EPD.</i></p> <p><i>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 or construction works 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 in results upstream or downstream of the life cycle stages declared.</i></p> <p><i>EPDs are only comparable if they conform with ISO 21930, this sub-category PCR, include all relevant information modules and are based on equivalent scenarios with respect to the construction works context.</i></p> <p><i>A manufacturer shall not make claims based on an industry-average EPD which leads the market to believe the industry-average is representative of manufacturer-specific or product-specific results.</i></p> |                                                                                                                                                                                                                                                                                                                                                    |

## Information about EPD owner

### EPD Owner & Contact

Gold Bond Building Products, LLC  
2001 Rexford Road  
Charlotte, NC 28211

### Description of the organization

National Gypsum Company, headquartered in Charlotte, NC, is the exclusive service provider of reliable, high-performance building products manufactured by its affiliate companies and marketed under the Gold Bond®, ProForm®, and PermaBASE® brands.

## Product Information

**Product name:** Gold Bond® Gridstone® Gypsum Ceiling Panels

### Product description

Gold Bond® Gridstone® Gypsum Ceiling Panels consist of a non-combustible, gypsum core and is available in white and black laminate vinyl facers. The 2-mil. white vinyl laminate combines high light reflectance and durability with easy cleanability. The 2-mil. black vinyl laminate facer combines durability with easy cleanability. Use Gridstone Gypsum Ceiling Panels in interior and unexposed exterior ceiling applications that require a smooth, durable and washable surface such as soffits, parking garages, kitchens, baths, cafeterias, restaurants, hospitals, gymnasiums, recreation centers and other public buildings. Gridstone panels are accepted by the USDA for use in food service and food processing areas. Gridstone Gypsum Ceiling Ceiling Panels comply with ASTM C1396 Standard Specification for Gypsum Board.

### Functional Unit

The functional unit is 92.2 m<sup>2</sup> (1,000 ft<sup>2</sup>) installed product with an RSL of 75 years.

| Functional Unit Information  | Unit           | Value |
|------------------------------|----------------|-------|
| Installed Area               | m <sup>2</sup> | 92.2  |
| Weight (excluding packaging) | kg             | 927   |
| Reference Service Life       | years          | 75    |

## Product Specifications

Table 1: Product Specifications for Gold Bond® Gridstone® Gypsum Ceiling Panels

| Technical Specifications   | Values                                                                                                          |
|----------------------------|-----------------------------------------------------------------------------------------------------------------|
| CSI                        | 09 29 00                                                                                                        |
| UN CPC                     | 314                                                                                                             |
| Product class and standard | Gypsum Board (ASTM C1396)                                                                                       |
| Product subcategory        | Pre-decorated Gypsum Lay-in Ceiling Panels                                                                      |
| Core type                  | Type X                                                                                                          |
| Facer type                 | Vinyl laminate over paper                                                                                       |
| Recycled Content           | Recycled paper (pre-consumer): 0%<br>Recycled paper (post-consumer): 100%<br>Recycled gypsum (pre-consumer): 0% |
| Options                    |                                                                                                                 |

Table 2: Technical Specifications for Gold Bond® Gridstone® Gypsum Ceiling Panels

| Technical Specifications | Units | Values                                                           |
|--------------------------|-------|------------------------------------------------------------------|
| Performance              | -     | Non-combustible gypsum core, vinyl laminate facers, sealed edges |
| Edge                     | -     | Square                                                           |
| Thickness                | inch  | 1/2 in                                                           |
| Width                    | inch  | 24 in                                                            |
| Color                    | -     | White or black                                                   |

## Product Material and Component Information

The composition of the product is provided below per functional unit, with a total product weight of 927 kg.

| Product components                                                                                                                                                                                           | [kg] | [%]** | Post-consumer material [%] |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-------|----------------------------|
| <b>Product</b>                                                                                                                                                                                               |      |       |                            |
| Gypsum, including internally processed reclaim gypsum                                                                                                                                                        | 853  | 92%   | 0%                         |
| Paper                                                                                                                                                                                                        | 37   | 4%    | 100%                       |
| Additives                                                                                                                                                                                                    | 37   | 4%    | 0%                         |
| <b>Packaging</b>                                                                                                                                                                                             |      |       |                            |
| Polyethylene Film                                                                                                                                                                                            | 0.11 | -     | 0%                         |
| Cardboard*                                                                                                                                                                                                   | 37.2 | -     | 0%                         |
| Wood Pallet                                                                                                                                                                                                  | 14.2 | -     | 0%                         |
| *Recycled content cardboard packaging is an average value associated with background LCI datasets. Recycled content values from average or secondary sources are used where supplier data was not available. |      |       |                            |
| **Values may not add to 100% due to rounding.                                                                                                                                                                |      |       |                            |

| Biogenic carbon content                           | [kg C/declared unit] |
|---------------------------------------------------|----------------------|
| Biogenic carbon content in product                | 19.4                 |
| Biogenic carbon content in accompanying packaging | 27.6                 |

This product does not contain substances on the Candidate List of SVHC for Authorisation at a percentage higher than 0.1% by mass. More detail on product composition can be found in product-specific Health Product Declarations (HPDs) available on National Gypsum's website: <https://www.nationalgypsum.com/design-resource-center/product-sustainability-documentation>

## EPD Representativeness

### Scope

The scope of this EPD is cradle-to-grave.

### Data Specificity

This product-specific EPD covers facility-specific data and results.

## Manufacturing description

Gypsum arrives at the manufacturing plant and is ground and heated to remove chemically bound water, forming stucco. The stucco is then mixed with water and other materials to make the core. The core is encased in paper facers. The board is then left to harden, maintaining 20-30% moisture, before being cut and put through a drying process. The edges are then trimmed, vinyl laminate is adhered to the gypsum board, the board is cut to size, packaged and palletized.

## Name and location of production site(s)

Rotan, TX

## System Boundary

The scope of the EPD is cradle-to-grave. Production of capital goods, infrastructure (except for electricity and heat, end of life, and as included in other secondary datasets), and personnel-related activities are excluded, as are long-term emissions. Impacts from waste treatment are accounted for in the module where generated.

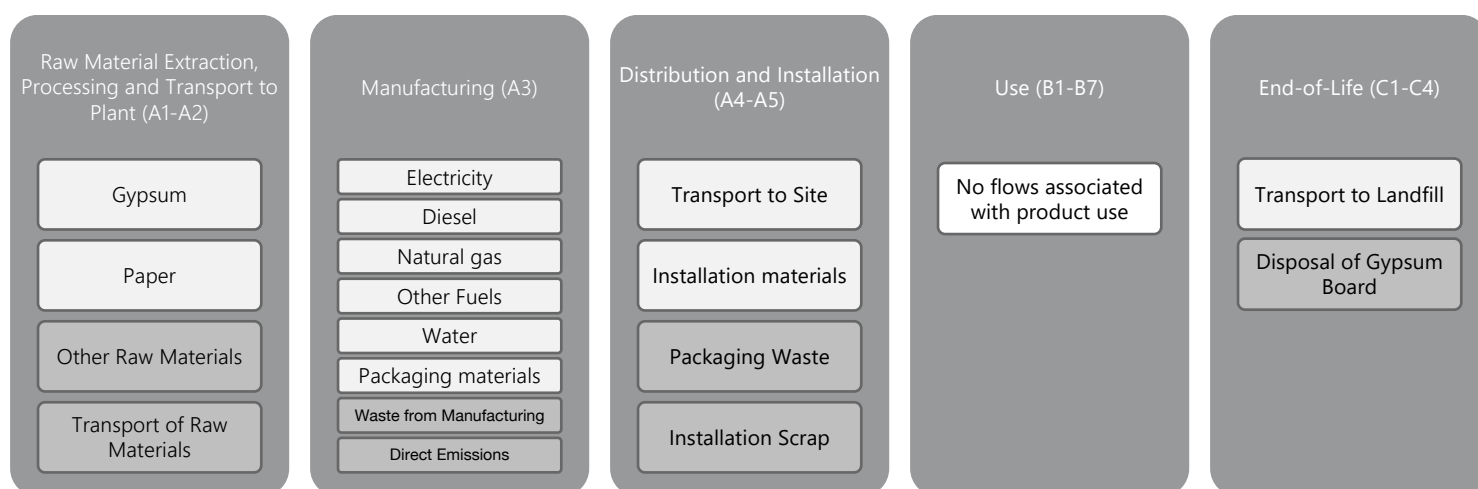


Figure 1: System Diagram

*\*Recycled waste flows considered to reach end of waste state when they enter the recycling facility*

Table 3: Modules Declared

|                  | Production          |           |               | Construction      |                  | Use |             |        |             |               |                        |                       | End of Life    |           |                  |          | Benefits & Loads Beyond System Boundary |
|------------------|---------------------|-----------|---------------|-------------------|------------------|-----|-------------|--------|-------------|---------------|------------------------|-----------------------|----------------|-----------|------------------|----------|-----------------------------------------|
|                  | Raw Material Supply | Transport | Manufacturing | Transport to Site | Assembly/Install | Use | Maintenance | Repair | Replacement | Refurbishment | Operational Energy Use | Operational Water Use | Deconstruction | Transport | Waste Processing | Disposal | Reuse, Recovery, Recycling Potential    |
| Module           | A1                  | A2        | A3            | A4                | A5               | B1  | B2          | B3     | B4          | B5            | B6                     | B7                    | C1             | C2        | C3               | C4       | D                                       |
| Modules declared | X                   | X         | X             | X                 | X                | X   | X           | X      | X           | X             | X                      | X                     | X              | X         | X                | X        | MND                                     |

## Data Sources and Quality

The data quality for this study is considered very good. Precision is supported by detailed bills of materials from product engineers and utility data from facility managers, with proxy datasets applied where secondary data were unavailable. The dataset is considered complete, capturing all known material and energy flows with the exceptions noted in the cut-off rules. Consistency is considered very good, with modeling assumptions applied uniformly and preference given to MLC data. Uncertainty in secondary datasets is addressed in Sphera's MLC LCI documentation, while uncertainty in the primary data is driven primarily by utility meter accuracy, along with minor variability from seasonal conditions and day-to-day BOM adjustments.

Background data sources required to be disclosed per the Part B PCR are presented in the table below.

| Process Category | Module | Material/Process Name | Inventory Dataset Name                                         | Dataset Geographic Region | Year Dataset Represents | Reference                                        |
|------------------|--------|-----------------------|----------------------------------------------------------------|---------------------------|-------------------------|--------------------------------------------------|
| Raw Material     | A1     | Paper                 | Specific Data                                                  | US                        | 2025                    | <a href="#">Gold Bond Building Products, LLC</a> |
|                  | A1     | Gypsum ore            | Specific Data                                                  | US                        | 2025                    | <a href="#">Gold Bond Building Products, LLC</a> |
| Transport        | A2     | Truck, dump           | Truck – Dump Truck / 52,000 lb payload – 8b                    | US                        | 2025                    | Sphera                                           |
|                  | A2     | Truck, flatbed        | Truck - Heavy Heavy-duty Diesel Truck / 53,333 lb payload – 8b | US                        | 2025                    | Sphera                                           |
| Energy           | A3     | Natural Gas           | Natural gas mix                                                | US                        | 2022                    | Sphera                                           |
|                  | A3     | Electricity           | Electricity grid mix (ERCT)                                    | US                        | 2023                    | Sphera                                           |
|                  | A3     | Packaging             | Corrugated product                                             | US                        | 2025                    | Sphera/AF&PA                                     |

## LCA Discussion

### Allocation

Multiple products are produced at the same facility as the product under study. To derive a per-unit value for manufacturing inputs such as electricity, thermal energy and water, allocation based on total annual production (in mass) was adopted. Allocation at the paper and quarry facilities is also by mass. As a default, secondary MLC datasets use a physical basis for allocation.

Throughout the study recycled materials were accounted for via the cut-off method. Under this method, impacts and benefits associated with the previous life of a raw material from recycled stock are excluded from the system boundary. Additionally, impacts and benefits associated with secondary functions of materials at end of life are also excluded (i.e., production into a third life or energy generation from the incineration plant). The study does include the impacts associated with reprocessing and preparation of recycled materials that are part of the bill of materials of the products under study. As specified by the PCR, the study does not include the production of electricity from the coal-fired power plants that produce the flue gas desulfurization gypsum.

### Cut-off rules

Cumulative excluded material inputs, energy inputs, and environmental impacts must not exceed 5% based on total weight, energy use, or environmental impact of the declared unit. The only flows omitted were raw materials contributing to less than 1% of the mortar used during installation.

## Technical Information and Scenarios

### Transport to the building site (A4)

| Parameter                                                  | Value per declared unit                                            |                                                                   |                                                                                                 | Unit              |
|------------------------------------------------------------|--------------------------------------------------------------------|-------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|-------------------|
| Transport from manufacturing facility to construction site | Mfg to Distribution Center                                         | Mfg to Distribution Center                                        | Distribution Center to site                                                                     |                   |
| Vehicle Type                                               | US: Truck - Heavy Heavy-duty Diesel Truck / 53,333 lb payload - 8b | US: Truck - Light Heavy-duty Diesel Truck / 6,667 lb payload - 2b | Rail transport cargo - Diesel, average train, gross tonne weight 1,000t / 726t payload capacity |                   |
| Fuel type                                                  | Diesel                                                             | Diesel                                                            | Diesel                                                                                          | -                 |
| Liters of fuel                                             | 35                                                                 | 25                                                                | 3                                                                                               | l/100km           |
| Distance                                                   | 448                                                                | 40                                                                | 208                                                                                             | km                |
| Capacity utilization (accounts for truck empty back hauls) | 38%                                                                | 38%                                                               | 40%                                                                                             | %                 |
| Capacity utilization volume factor                         | 1                                                                  | 1                                                                 | 1                                                                                               | -                 |
| Weight of product                                          | 927                                                                |                                                                   |                                                                                                 | kg                |
| Gross density of products transported                      | 786                                                                |                                                                   |                                                                                                 | kg/m <sup>3</sup> |

### Installation in the building (A5)

| Parameter                                                                                                                                                           | Value per declared unit | Unit               |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|--------------------|
| The installation scenario follows the scenario specified by the PCR. All waste is sent to landfill, separated by type of waste (e.g., paper, inert, wood, plastic). |                         |                    |
| Installation scrap rate                                                                                                                                             | 10                      | %                  |
| Lightweight Ready Mixed                                                                                                                                             | 27.40                   | kg                 |
| Conventional Ready Mixed                                                                                                                                            | 41.20                   | kg                 |
| Joint tape                                                                                                                                                          | 0.90                    | kg                 |
| Screws                                                                                                                                                              | 2.70                    | kg                 |
| Ancillary products (total)                                                                                                                                          | 72.20                   | kg                 |
| Net freshwater consumption specified by water source and fate                                                                                                       | 0                       | m <sup>3</sup>     |
| Other resources                                                                                                                                                     | 0                       | kg                 |
| Electricity consumption                                                                                                                                             | 0                       | kWh                |
| Other energy carriers                                                                                                                                               | 0                       | MJ                 |
| Product loss                                                                                                                                                        | 92.7                    | kg                 |
| Packaging waste                                                                                                                                                     | 51.5                    | kg                 |
| LLDPE Film                                                                                                                                                          | 0.11                    | kg                 |
| Cardboard                                                                                                                                                           | 37.2                    | kg                 |
| Pallet                                                                                                                                                              | 14.2                    | kg                 |
| Waste materials at the construction site before waste processing, generated by product installation                                                                 | 144.2                   | kg                 |
| Output materials resulting from on-site waste processing                                                                                                            | 144.2                   | kg                 |
| Total waste materials resulting from on-site waste processing                                                                                                       | 144.2                   | kg                 |
| Biogenic carbon contained in packaging                                                                                                                              | 27.6                    | kg CO <sub>2</sub> |
| Direct emissions to ambient air, soil and water                                                                                                                     | 0                       | kg                 |
| VOC content                                                                                                                                                         | 0                       | µg/m <sup>3</sup>  |

### Reference Service Life

| Parameter                     | Value per declared unit                                                                                                                                                                                                                                                                                                                          | Unit  |
|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|
| RSL                           | 75                                                                                                                                                                                                                                                                                                                                               | years |
| Declared product properties   | As described in product information and product submittals found on goldbondbuilding.com                                                                                                                                                                                                                                                         |       |
| Design application parameters | Gold Bond® gypsum panels shall be handled, stored, and installed in accordance with National Gypsum's published guidelines, including Handling and Storage of Gypsum Board and Gypsum Board Installation (available at nationalgypsum.com), as well as accepted industry practices and all applicable building codes and project specifications. |       |
| Assumed quality of work       | Storage, handling, installation, and finishing shall comply with the manufacturer's published recommendations (available at nationalgypsum.com), including gypsum board installation and finishing documentation, as well as applicable industry standards and project specifications.                                                           |       |

| Parameter                 | Value per declared unit                                                                                                                                                                                                                                                                                                             | Unit |
|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| <b>Indoor environment</b> | Gypsum panels are manufactured for a range of applications and are available with different performance features based on the intended use. As non-structural components in interior systems and assemblies, panels shall be selected based on the environmental conditions, exposure, and service requirements of the application. |      |
| <b>Use conditions</b>     | Interior, conditioned applications where gypsum panels function as non-structural components in assemblies, under normal occupancy and typical environmental conditions without prolonged moisture exposure. Installation and maintenance are assumed to follow manufacturer recommendations and applicable building codes.         |      |
| <b>Maintenance</b>        | No regular maintenance is required under normal conditions of use. Products may require repair or replacement with the same product type, classification, and thickness as the original installation in the event of damage, moisture exposure, or space modifications.                                                             | -    |

#### Use and Maintenance (B1-B7)

Use and maintenance scenarios are deemed not relevant to the scope of this EPD.

#### End-of-Life (C1-C4)

| Parameter                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Value per declared unit                  | Unit                    |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|-------------------------|
| <b>The product is assumed to be collected as mixed construction waste at end-of-life and sent to landfill.</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                          |                         |
| <b>Demolition (C1)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Electricity                              | 0 kWh                   |
| <b>Transport (C2)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Truck (75% utilization, empty back haul) | 32.8 km                 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Rail                                     | 119.1 km                |
| <b>Collection Process (C3)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Collected as mixed construction waste    | 927 kg                  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Waste to Landfill                        | 927 kg                  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Waste to Incineration                    | 0 kg                    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Waste to Recycling                       | 0 kg                    |
| <b>Disposal (C4)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Product for final disposal               | 927 kg                  |
| <b>Emissions of biogenic carbon (excluding packaging)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                          | 68.7 kg CO <sub>2</sub> |
| <p><i>Note: Hydrogen sulfide (H<sub>2</sub>S) formation in Municipal Solid Waste (MSW) and Construction &amp; Demolition (C&amp;D) landfills requires a sulfate source, carbon source, anaerobic conditions, moisture, pH, and temperature. Gypsum panels are a significant contributor to H<sub>2</sub>S formation.</i></p> <p><i>Issues in Landfill Gas (LFG) Projects: High H<sub>2</sub>S concentrations in LFG can cause engine wear and corrosion, leading to more frequent maintenance. Combustion of H<sub>2</sub>S-rich LFG emits sulfur dioxide (SO<sub>2</sub>), a regulated pollutant with strict emission limits in the U.S.</i></p> <p><i>Prevention Measures: Diverting gypsum panels from landfills can reduce H<sub>2</sub>S formation. Some landfills ban drywall disposal, except in small amounts. Recycling markets for gypsum drywall (e.g., agricultural soil amendments, new drywall production) help reduce landfill deposits.</i></p> |                                          |                         |

#### Period Under Review

Data were collected for January-December 2025.

#### Comparability and Benchmarking

Comparisons cannot be made between product-specific or industry average EPDs at the design stage of a project, before a building or construction works has been specified. Comparisons may be made between product-specific or industry average EPDs at the time of product purchase only when product or construction works 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 comparisons can be inaccurate and could lead to erroneous selection of materials or products that are higher-impact, at least in some impact categories.

#### Estimates and Assumptions

The upstream raw materials go through some level of processing, but the exact processing details, including energy use and scrap rates are not known. MLC datasets are used to represent these processes, including default loss rates. It is estimated that this may slightly overestimate or underestimate impacts, but within a small range, +/- 5%, based on typical scrap rates and the minimal amount of energy used compared to upstream raw material production.

The inclusion of overhead energy data was determined appropriate due to the inability to sub-meter and isolate manufacturing energy from overhead energy.

## Units

All data and results are presented using SI units.

## Environmental Performance

| Abbreviation                             |                                                                                                        | Unit                          |
|------------------------------------------|--------------------------------------------------------------------------------------------------------|-------------------------------|
| <b>EN 15804+A2 (as per EF 3.1)</b>       |                                                                                                        |                               |
| <b>GWP-total</b>                         | Global warming potential total                                                                         | kg CO <sub>2</sub> eq         |
| <b>GWP-fossil</b>                        | Global warming potential fossil fuels                                                                  | kg CO <sub>2</sub> eq         |
| <b>GWP-biogenic</b>                      | Global warming potential biogenic                                                                      | kg CO <sub>2</sub> eq         |
| <b>GWP-luluc</b>                         | Global warming potential land use and land use change                                                  | kg CO <sub>2</sub> eq         |
| <b>TRACI 2.2</b>                         |                                                                                                        |                               |
| <b>AP</b>                                | Acidification potential of soil and water                                                              | kg SO <sub>2</sub> eq         |
| <b>EP,fw</b>                             | Eutrophication potential, fresh water                                                                  | kg N eq                       |
| <b>EP,m</b>                              | Eutrophication potential, marine                                                                       | kg N eq                       |
| <b>ODP</b>                               | Depletion of stratospheric ozone layer                                                                 | kg CFC 11 eq                  |
| <b>POFP</b>                              | Smog formation potential                                                                               | kg O <sub>3</sub> eq          |
| <b>Resource Use Parameters</b>           |                                                                                                        |                               |
| <b>RPR<sub>E</sub></b>                   | Use of renewable primary energy excl. renewable primary energy resources used as raw materials         | MJ, net calorific value (LHV) |
| <b>RPR<sub>M</sub></b>                   | Use of renewable primary energy resources used as raw materials                                        | MJ, net calorific value       |
| <b>RPR<sub>T</sub></b>                   | Total use of renewable primary energy resources                                                        | MJ, net calorific value       |
| <b>NRPR<sub>E</sub></b>                  | Use of non-renewable primary energy excl. non-renewable primary energy resources used as raw materials | MJ, net calorific value       |
| <b>NRPR<sub>M</sub></b>                  | Use of non-renewable primary energy resources used as raw materials                                    | MJ, net calorific value       |
| <b>NRPR<sub>T</sub></b>                  | Total use of non-renewable primary energy resources                                                    | MJ, net calorific value       |
| <b>SM</b>                                | Use of secondary materials                                                                             | kg                            |
| <b>RSF</b>                               | Use of renewable secondary fuels                                                                       | MJ, net calorific value       |
| <b>NRSF</b>                              | Use of non-renewable secondary fuels                                                                   | MJ, net calorific value       |
| <b>RE</b>                                | Recovered energy                                                                                       | MJ, net calorific value       |
| <b>ADP<sub>f</sub></b>                   | Abiotic depletion potential for fossil resources (CML-baseline, v4.7 Aug 2016)                         | MJ, net calorific value       |
| <b>FW</b>                                | Net use of fresh water                                                                                 | m <sup>3</sup>                |
| <b>Waste Parameters and Output Flows</b> |                                                                                                        |                               |
| <b>HWD</b>                               | Disposed-of-hazardous waste                                                                            | kg                            |
| <b>NHWD</b>                              | Disposed-of non-hazardous waste                                                                        | kg                            |
| <b>HLRW</b>                              | High-level radioactive waste, conditioned, to final repository                                         | kg                            |
| <b>ILLRW</b>                             | Intermediate- and low-level radioactive waste, conditioned, to final repository                        | kg                            |
| <b>CRU</b>                               | Components for reuse                                                                                   | kg                            |
| <b>MR</b>                                | Materials for recycling                                                                                | kg                            |
| <b>MER</b>                               | Materials for energy recovery                                                                          | kg                            |
| <b>EEE</b>                               | Exported electrical energy                                                                             | MJ                            |
| <b>EET</b>                               | Exported thermal energy                                                                                | MJ                            |
| <b>Carbon Emissions and Removals</b>     |                                                                                                        |                               |
| <b>BCRP</b>                              | Biogenic Carbon Removal from Product                                                                   | kg CO <sub>2</sub>            |
| <b>BCEP</b>                              | Biogenic Carbon Emission from Product                                                                  | kg CO <sub>2</sub>            |
| <b>BCRK</b>                              | Biogenic Carbon Removal from Packaging                                                                 | kg CO <sub>2</sub>            |
| <b>BCEK</b>                              | Biogenic Carbon Emission from Packaging                                                                | kg CO <sub>2</sub>            |
| <b>BCEW</b>                              | Biogenic Carbon Emission from Combustion of Waste from Renewable Sources Used in Production Processes  | kg CO <sub>2</sub>            |
| <b>CCE</b>                               | Calcination Carbon Emissions                                                                           | kg CO <sub>2</sub>            |
| <b>CCR</b>                               | Carbonation Carbon Removals                                                                            | kg CO <sub>2</sub>            |
| <b>CWNR</b>                              | Carbon Emissions from Combustion of Waste from Non- Renewable Sources used in Production Processes     | kg CO <sub>2</sub>            |

## Environmental Performance Results

LCIA results are relative expressions and do not predict impacts on category endpoints, the exceeding of thresholds, safety margins or risks. All results are given per declared unit, 92.2 m<sup>2</sup> (1,000 square feet) of Gold Bond® Gridstone® Gypsum Ceiling Panels (Rotan, TX).

| Indicators                    | Units                  | A1-A3      | A4          | A5         | B1-B7 | C1 | C2          | C3       | C4         |
|-------------------------------|------------------------|------------|-------------|------------|-------|----|-------------|----------|------------|
| <b>EN 15804+A2 (EF 3.1)</b>   |                        |            |             |            |       |    |             |          |            |
| GWP-total                     | kg CO <sub>2</sub> eq. | 214        | 79.6        | 176        | 0     | 0  | 7.18        | 0        | 113        |
| GWP-fossil                    | kg CO <sub>2</sub> eq. | 380        | 79.4        | 71         | 0     | 0  | 7.18        | 0        | 19.3       |
| GWP-biogenic                  | kg CO <sub>2</sub> eq. | -166       | 0.16        | 105        | 0     | 0  | 0.00318     | 0        | 93.7       |
| GWP-luluc                     | kg CO <sub>2</sub> eq. | 0.0729     | 0.0234      | 0.0266     | 0     | 0  | 0.00213     | 0        | 0.00815    |
| <b>TRACI 2.2</b>              |                        |            |             |            |       |    |             |          |            |
| AP                            | kg SO <sub>2</sub> eq  | 0.617      | 0.389       | 0.235      | 0     | 0  | 0.0377      | 0        | 0.173      |
| EP,fw                         | kg N eq                | 0.00301    | 0.0000516   | 0.000655   | 0     | 0  | 0.0377      | 0        | 0.173      |
| EP,m                          | kg N eq                | 0.374      | 0.363       | 0.129      | 0     | 0  | 0.0353      | 0        | 0.0705     |
| ODP                           | kg CFC 11 eq           | 1.27E-09   | 2.75E-11    | 6.21E-09   | 0     | 0  | 2.5E-12     | 0        | 1.02E-10   |
| POFP                          | kg O <sub>3</sub> eq   | 12.7       | 9.47        | 3.7        | 0     | 0  | 1.17        | 0        | 2.05       |
| <b>Resource Use</b>           |                        |            |             |            |       |    |             |          |            |
| RPR <sub>E</sub>              | MJ                     | 898        | 40.6        | 164        | 0     | 0  | 3.68        | 0        | 43.9       |
| RPR <sub>M</sub>              | MJ                     | 723        | 0           | 102        | 0     | 0  | 0           | 0        | 0          |
| RPR <sub>T</sub>              | MJ                     | 1620       | 40.6        | 266        | 0     | 0  | 3.68        | 0        | 43.9       |
| NRPR <sub>E</sub>             | MJ                     | 5570       | 1010        | 978        | 0     | 0  | 91.3        | 0        | 288        |
| NRPR <sub>M</sub>             | MJ                     | 98.7       | 0           | 161        | 0     | 0  | 0           | 0        | 0          |
| NRPR <sub>T</sub>             | MJ                     | 5670       | 1010        | 1140       | 0     | 0  | 91.3        | 0        | 288        |
| SM                            | kg                     | 48.3       | 0           | 4.83       | 0     | 0  | 0           | 0        | 0          |
| RE                            | MJ                     | 0          | 0           | 0          | 0     | 0  | 0           | 0        | 0          |
| RSF                           | MJ                     | 0          | 0           | 0          | 0     | 0  | 0           | 0        | 0          |
| NRSF                          | MJ                     | 0          | 0           | 0          | 0     | 0  | 0           | 0        | 0          |
| ADPf                          | MJ                     | 5470       | 998         | 1100       | 0     | 0  | 90.5        | 0.00E+00 | 282        |
| FW                            | m <sup>3</sup>         | 1.18       | 0.0312      | 0.289      | 0     | 0  | 0.00283     | 0        | 0.0345     |
| <b>Output flows and waste</b> |                        |            |             |            |       |    |             |          |            |
| HWD                           | kg                     | 0.00000380 | 0.000000211 | 0.00000481 | 0     | 0  | 1.91E-08    | 0        | 7.94E-08   |
| NHWD                          | kg                     | 43.7       | 0.118       | 138        | 0     | 0  | 0.0107      | 0        | 884        |
| HLRW                          | kg                     | 0.0000880  | 0.00000365  | 0.0000175  | 0     | 0  | 0.000000331 | 0        | 0.00000277 |
| ILLRW                         | kg                     | 0.0746     | 0.00306     | 0.0156     | 0     | 0  | 0.000278    | 0        | 0.00238    |
| CRU                           | kg                     | 0          | 0           | 0          | 0     | 0  | 0           | 0        | 0          |
| MFR                           | kg                     | 0.927      | 0           | 0.0927     | 0     | 0  | 0           | 0        | 0          |
| MER                           | kg                     | 0          | 0           | 0          | 0     | 0  | 0           | 0        | 0          |
| EEE                           | MJ                     | 0.776      | 0           | 7.94       | 0     | 0  | 0           | 0        | 7.98       |
| EET                           | MJ                     | 0.365      | 0           | 3.74       | 0     | 0  | 0           | 0        | 3.75       |
| <b>Biogenic carbon</b>        |                        |            |             |            |       |    |             |          |            |
| BCRP                          | kg CO <sub>2</sub>     | 71.3       | 0           | 7.13       | 0     | 0  | 0           | 0        | 0          |
| BCEP                          | kg CO <sub>2</sub>     | 0          | 0           | 6.87       | 0     | 0  | 0           | 0        | 68.7       |
| BCRK                          | kg CO <sub>2</sub>     | 95.6       | 0           | 9.56       | 0     | 0  | 0           | 0        | 0          |
| BCEK                          | kg CO <sub>2</sub>     | 0          | 0           | 92         | 0     | 0  | 0           | 0        | 0          |
| BCEW                          | kg CO <sub>2</sub>     | 0          | 0           | 0          | 0     | 0  | 0           | 0        | 0          |
| CCE                           | kg CO <sub>2</sub>     | 0          | 0           | 0          | 0     | 0  | 0           | 0        | 0          |
| CCR                           | kg CO <sub>2</sub>     | 0          | 0           | 0          | 0     | 0  | 0           | 0        | 0          |
| CWNR                          | kg CO <sub>2</sub>     | 0          | 0           | 0          | 0     | 0  | 0           | 0        | 0          |

Comparisons cannot be made between product-specific or industry average EPDs at the design stage of a project, before a building or construction works has been specified. Comparisons may be made between product-specific or industry average EPDs at the time of product purchase only when product or construction works 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 comparisons can be inaccurate and could lead to erroneous selection of materials or products that are higher-impact, at least in some impact categories.

## Interpretation

In general, A1-A3 results drive impacts, followed by distribution, which is more significant for AP, EPm, and POFP. Distribution will vary by client, however the default scenario in the PCR was used for this assessment.

Within A1-A3, GWP is driven by natural gas, followed by paper (where used) and material transport. AP, EPm, and POFP have similar trends. They have a larger variety of significant drivers, including: material transport, paper (where used), fiberglass mat (where used), natural gas, and virgin gypsum (where used). Finally, EPfw is driven by paper (where used), natural gas, waste, and water.

## Additional Environmental Information

### Supporting our environment, associates, customers and community

You'll find our commitments to sustainability and corporate responsibility under the banner, Building Futures®. From the products we make, to the ways we do business, to the causes we support, Building Futures tells the story of how our family of brands is supporting the communities we call home, today and for generations to come.

### Environmental stewardship

Our manufacturing companies adhere to environmental standards at every stage of production to eliminate waste, conserve water and reduce energy use (<https://www.nationalgypsum.com/who-we-are/corporate-responsibility>).

### Corporate responsibility

We build better futures by supporting organizations that build stronger communities, with an emphasis on educational excellence and equity (<https://www.nationalgypsum.com/who-we-are/corporate-responsibility>).

### Product innovation

We implement cutting-edge research and development with applied science to improve product performance as well as health and safety for our team members, partners and communities (<https://www.nationalgypsum.com/products>).

### Product disposal

Disposal of gypsum board in landfills has been shown to elevate hydrogen sulfide (H<sub>2</sub>S) concentrations in landfill gas, a problem with respect to odor, worker safety, and deleterious effects on gas-to-energy systems.

## List of Abbreviations

|      |                                                |       |                                                                                |
|------|------------------------------------------------|-------|--------------------------------------------------------------------------------|
| CAS  | Chemical Abstracts Service                     | LCI   | Life Cycle Inventory                                                           |
| CEN  | European Committee for Standardization         | LCIA  | Life Cycle Impact Assessment                                                   |
| CPC  | Central Product Classification                 | MLC   | Managed Lifecycle Content (Sphera database)                                    |
| EC   | European Community                             | N/A   | Not Applicable                                                                 |
| EF   | Environmental Footprint                        | MND   | Module Not Declared                                                            |
| EN   | European Norm                                  | PCR   | Product Category Rule                                                          |
| EPD  | Environmental Product Declaration              | SVHC  | Substances of Very High Concern                                                |
| IPCC | Intergovernmental Panel on Climate Change      | TRACI | Tool for Reduction and Assessment of Chemicals and Other Environmental Impacts |
| ISO  | International Organization for Standardization | VOC   | Volatile Organic Compound                                                      |
| LCA  | Life Cycle Assessment                          |       |                                                                                |

*The list of acronyms used for LCIA and LCI indicators is available within the Environmental Performance section.*

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Version History

| Version | Date               | Differences from previous versions |
|---------|--------------------|------------------------------------|
| 1.0     | September 11, 2026 | Original version of EPD            |