



Product Category Rule (PCR) Guidance for Building-Related Products and Services

Part B: Metal Ceiling and Interior Wall Panel System EPD Requirements

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Product Category Rules for Building-Related Products and Services Part B: Metal Ceiling and Interior Wall Panel System EPD Requirements, UL 10010–12

First Edition, Dated January 15, 2020

Summary of Topics

The First Edition of the Part B: Metal Ceiling and Interior Wall Panel System EPD Requirements, UL 10010–12 has been issued.

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Publisher:
UL Environment

Tracking of versions

Version	Comments	History
1.0	Creation of PCR Part B for Metal Ceiling and Wall System Products to conform with ISO 21930: 2017 and UL Part A. This PCR has been updated to align with international standards with the intent of allowing manufacturers to create EPDs which are global in scope.	January, 2020

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This PCR is valid for a period of five (5) years, set to expire in January, 2025.

I. Background Information and Acknowledgements

These sub-category Product Category Rules (PCR) were developed to address the product specific rules for the creation of Environmental Product Declarations (EPD) for “metal ceiling and interior wall panel systems” and includes all commercially available metal ceiling and interior wall panel system products and trims, column covers, and their required suspension system and acoustical treatments, collectively referenced throughout this PCR as “metal ceiling and interior wall panel system products”. When used to self-reference this document, “PCR” refers to “sub-category PCR.”

Relevant documents considered in the development of this PCR include:

- IBU Part B: Metal Ceilings, version 1.5 October 2013
- LCA Background Report for Steel Specialty Products, Ceilings and Interior Systems Construction Association. PE International, November 2014.
- LCA Background Report for Aluminum Specialty Products, Ceilings and Interior Systems Construction Association. PE International, November 2014.
- Part A: Life Cycle Assessment Calculation Rules and Report Requirements UL Environment December 2018, version 3.2)
- ISO 21930: 2017 - Sustainability in building construction -- Environmental declaration of building products
- EN 15804: 2012-04 - Sustainability of construction works - Environmental Product Declarations - Core rules for the product category of construction product.
- PCR Committee Process & Resources: Part B. US Green Building Council/UL Environment. July 2017.

This PCR assumes a 75 year building service life to be consistent with ASHRAE 189.1 (2014, Section 9.5.1).

Interested Parties

This Part B has been prepared with input from the following stakeholders:

- Ceilings and Interior Systems Construction Association (CISCA)
- thinkstep

Governance

There are a number representatives of ceiling manufacturers participating in the creation of this Product Category Rule (“PCR”) for Metal Ceiling and Interior Wall Panel System products, including the Ceilings and Interior Systems Construction Association (CISCA). These parties represent a majority of the companies in their particular sector of the ceiling systems industry. Moreover, the manufacturing parties participating in the PCR update represent the vast majority of the ceiling systems sold in North America in the product categories included in this PCR. The very purpose and function of a trade association is to inform its members of important industry developments and to represent their interests in projects such as the update of a PCR affecting their products. This is important because it



effectively demonstrates that a large percentage of the Metal Ceiling and Wall Systems industry is represented in the effort to renew the PCR for ceiling system products.

In the development of this document, Part B, participants are responsible for ensuring alignment with Part A and conformance with the scoped standards: ISO 21930, EN 15804, and ISO 14025.

Involvement of Interested Parties

UL Environment shall be responsible for producing the PCR document by establishing an open consultation process that includes the involvement of interested parties (ISO 21930 Section 5.2 and 6.2.1). Reasonable efforts were made to achieve a consensus throughout the process (ISO 14020:2000, 4.9.1, Principle 8 and cited in both ISO 14025 and ISO 21930), demonstrated by a vote of participating interested parties.

CISCA informed their memberships of the PCR creation through their regularly scheduled association committee meetings, newsletters, e-mail messages, and similar types of outreach. Trade associations operate at the behest of its members, and the fact that trade associations are participating in the update of a PCR for Metal Ceiling and Wall Systems products is an indication that their memberships are aware of this project and have authorized their association to represent them in this important endeavour.

UL Environment posted an open call for participation in this PCR update in January 2019 via its standards website, social media outlets, and outreach to original committee stakeholders.

Update Process

The PCR is valid for a duration of five (5) years from the publication date, at which time it may be revised at the request of industry stakeholders. The PCR may be revised before the five year date if the following occurs in the industry:

- The industry desires an update
- Core governing standards ISO 14040, 14044, 14025, 21930, or EN 15804 are updated with substantial material changes

Note: When the PCR is updated, the Program Operator shall communicate with the original committee, any new EPD participants, and initiate a new public call for interested parties.

Public Consultation

Public consultation was utilized during the PCR review process. The public consultation of the completed draft PCR included a minimum 30-calendar-day period for comments to be submitted to UL Environment. After public comments were submitted, the PCR committee reviewed and developed responses for all comments. All comments from the review panel and public consultation were addressed and satisfactorily resolved by the PCR committee prior to the publication of this PCR.

Review

The review process of this Part B PCR included a review through public consultation from July 3 -- August 3, 2019 and a panel review, comprised of the following individuals:

Jack Geibig, P.E. (committee chair)
Ecoform

Philip S. Moser, P.E. (MA)
Simpson Gumpertz & Heger

Kristen Rowe, MEM
John Beath Environmental

II. Scope

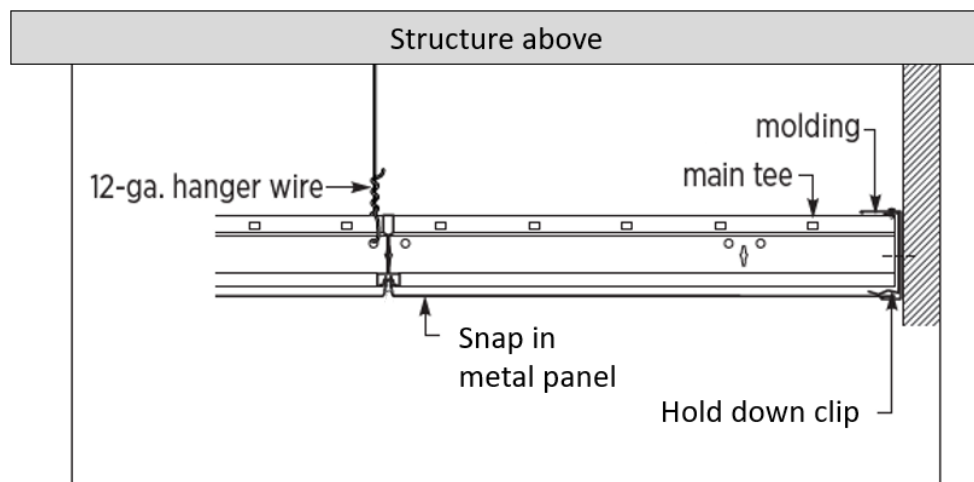
This document contains the Product Category Rule (PCR) requirements for Metal Ceiling and Interior Wall Panel System Product EPDs published in coordination with the ISO 21930 and EN 15804 standards. The requirements for the background Life Cycle Assessment (LCA) project report used to inform the EPD are contained in UL Environment's Part A: Life Cycle Assessment Calculation Rules and Report Requirements. This Part B document, coupled with the Part A, conforms to the ISO 21930, EN 15804, and ISO 14025 sustainability standards for EPD reporting in addition to the US Green Building Council PCR Guidance.

This PCR has been updated to align with international standards with the intent of allowing manufacturers to create EPDs which are global in scope.

General Guidance

The scope of this PCR applies to the product group “metal ceiling and interior wall panel systems” and includes all commercially available metal ceiling and interior wall panel system products and trims, column covers, and their required suspension system and acoustical treatments according to the standards or technical approvals shown under Section 9. Figure 1 provides a schematic for what is covered under the reporting scope of this PCR. The scope for metal ceilings includes all manufacturer supplied materials required to install the finished metal ceiling, including main and cross tees but excluding hanger wires and attachment to the structure (i.e. molding and hold down clips).

Figure 1. Metal Ceiling Product Scope Schematic



Applicable Products

The Construction Specification Institute (CSI) Masterformat codes that cover the scope of this Part B include:

- 05 75 30 Column covers
- 07 42 00 Wall Panels
- 07 42 13 Metal Wall Panels
- 07 42 63 Fabricated Wall Panel Assemblies
- 07 42 93 Metal soffit/ceiling panels
- 09 22 00 Supports for Plaster and Gypsum Board
- 09 22 26.23 Metal Suspension Systems
- 09 50 00 Ceilings
- 09 51 00 Acoustical Ceilings
- 09 51 13 Acoustical Panel Ceilings
- 09 51 23 Acoustical Tile Ceilings
- 09 51 33 Acoustical Metal Pan Ceilings
- 09 51 33.13 Acoustical Snap-in Metal Pan Ceilings
- 09 53 00 Acoustical Ceiling Suspension Assemblies
- 09 53 13 Curved Profile Ceiling Suspension Assemblies
- 09 53 23 Metal Acoustical Ceiling Suspension Assemblies
- 09 54 00 Specialty Ceilings
- 09 54 05 Specialty Ceilings
- 09 54 13 Open Metal Mesh Ceilings
- 09 54 19 Mirror Panel Ceilings
- 09 54 23 Linear Metal Ceilings
- 09 54 33 Decorative Panel Ceilings
- 09 54 36 Suspended Decorative Grids
- 09 56 00 Textured Ceilings
- 09 56 16 Metal-Panel Textured Ceilings
- 09 78 00 Interior Wall Paneling
- 09 78 13 Metal Interior Wall Paneling
- 05 75 00 Decorative Formed Metal

Corresponding applicable UNSPSC codes include:

- 30161600 Ceiling materials
- 30161601 Acoustic ceiling tiles
- 30161602 Ceiling panels
- 25172000 Suspension system components



Below are some details regarding how the scope would apply for the various types of metal ceilings.

- Acoustical Ceiling Suspension System (Grid)
 - Scope to include ceiling grid without hanger wires, molding, or attachment/hold down clips
- Suspended Island Systems
 - Scope to include required suspension grid without hanger wires, molding, or attachment/hold down clips
 - Scope to include metal ceiling panels but not non-metal ceiling panels
- Metal Ceiling Panels
 - Scope to include metal ceiling panels and suspension grid without hanger wires, molding, or attachment/hold down clips
- Metal Wall Panels and Column Covers
 - Scope to include metal wall panels and/or column covers and supporting framework. The supporting framework does not include steel stud walls or hot-rolled structural steel girts but does include furring strips.
- Suspended Decorative Grids (i.e., open cell ceiling; no panels present)
 - Scope to include decorative grid without hanger wires, molding, or attachment/hold down clips

Non-Applicable Products

Products that may provide the same function in a different application are not within the scope of this PCR. These excluded products are:

- Exterior cladding (covered by Product Category Rule (PCR) for Preparing an Environmental Product Declaration (EPD) for Product Group Cladding System Products, UL Environment, 2015.)
- Non-metal ceiling and wall systems
- Hanger wire, attachment/hold down clips, compression posts, vertical struts, lateral struts
- Primary structural systems such as joists and hot-rolled structural steel, permanent/load bearing walls
- Secondary framing systems such as Unistrut™ that are not part of the proprietary ceiling panel system and may support a variety of other systems including plumbing, HVAC, electrical, and/or telecom/data in addition to ceiling panels

System Boundary

The system boundary for EPDs created using this PCR is either cradle to gate, cradle to gate with options (end of life), or cradle to grave.

The EPD requirements include:

- ISO 21930:2017 standard
- EN 15804 standard (optional)
- ULE General Program Instructions v 2.4, July 2018 (available upon request)
- The calculation rules for the Life Cycle Assessment and Requirements on the Project Report are specified in a separate document as Part A of the Product Category Rules, available at <http://industries.ul.com/environment/transparency/product-category-rules-pcrs>



III. Industry-Average EPD Requirements

Industry-Average EPD Scope

The products represented within a single industry-average EPD created using this PCR are limited to the primary materials defined in the product specification standards in Section 9 that characterize the specific product in commerce.

Involvement of Interested Parties

A call for involvement of interested parties in the creation of an industry-average EPD shall be published in at least one industry trade publication. At a minimum, at least three (3) different manufacturing locations from no less than three (3) companies should be involved and represented in an industry-average EPD. The method for determining representativeness shall be justified and described per the requirements listed in Section 2.2.4.1.

Industry-Average EPD Participation

A manufacturer qualifies for participation in an industry-average EPD created using this PCR if the manufacturer provides LCA data used to calculate the EPD average.

Retroactive participation

When determining a manufacturer's participation eligibility, the EPD Program Operator shall follow the rules and recommendations of the primary sponsor(s) of the industry average EPD and participating manufacturers unless the Program Operator has information to the contrary, in which case the Program Operator, LCA practitioner, primary sponsor of the industry average EPD, and manufacturer shall confer in an effort to reach consensus.

Pending all criteria set forth by the primary sponsor of the industry average EPD are met, a manufacturer desiring retroactive inclusion in the industry average EPD shall provide manufacturing and product data information of the same representativeness submitted in the original industry average EPD to the LCA practitioner. The LCA practitioner will then recommend to the Program Operator a determination for inclusion in the industry average on the basis of results falling within a reasonable range for any impact category. The maximum and minimum should be reported in the LCA background report for each impact category based on the highest and lowest impact product or facility within the original industry-wide LCA.

Governance

An industry organization, in this case the Ceilings and Interior Systems Construction Association ("*CISCA*"), shall inform possible industry participants through association meetings, newsletters, e-mail messages, and similar types of outreach, including public notices in the trade press publications. Confidential business information shall be collected by a third party. Data from the third party shall be provided to the facilitator as aggregated data with no trace to the original source of data.

The development of an industry-average EPD and or update of an EPD should involve a series of meetings and exchanges in which all participants are invited and kept apprised of the developments. Notices of these meetings should be given to all possible participants regardless of their commitment to active involvement. Minutes of meetings, along with meeting notices, should be preserved as documentation of the process and due diligence observed in the creation or renewal of the EPD.

Data Responsibility/Ownership

Trade associations that lead the development of industry-average EPDs may need to collect confidential business information from individual members. This data can include proprietary chemical formulations and processes or other confidential information. In this case, a designated third-party entity such as an LCA practitioner shall be identified as the "industry agent". The industry agent shall be responsible for activities including collection, secure storage and analysis of such data needed for the EPD development, and will preserve the privacy of individual company information while executing these duties.

Per ISO 21930 Section 5.4, the manufacturer, or group of manufacturers, of the construction product is the sole owner of the EPD and is responsible for developing the EPD of the construction product according to the PCR. Only the manufacturer or group of manufacturers is authorized to declare the environmental performance of the construction product using an EPD.



The group of manufacturers responsible for developing an industry-average EPD shall be responsible for, including but not limited to, ensuring industry-average EPD updates are made based on the most recent LCA modeling software version and impact assessment version available.

EPD Updates

EPDs created using this PCR shall expire five (5) years after publication. An update to the existing EPD, or new EPD, may need to be developed prior to the five years if: 1) significant changes have occurred in the manufacturing process; 2) new industry participants; 3) significant changes or alterations in raw materials; 4) major regulatory changes that mandate or trigger changes to operational procedures; or 5) major technological changes would also justify creation of an updated EPD.

Additional companies may be added to an existing industry-average EPD at the scheduled review by submitting data required for retroactive participation. However, this shall not automatically trigger a recalculation of the industry average impacts.