

LEED helps buildings to focus on efficiency and leadership to deliver the triple bottom line returns of people, planet, and profit. Today's version of LEED, LEED v4.1, raises the bar on building standards to address energy efficiency, water conservation, site selection, material selection, day lighting and waste reduction.

# **BD+C Building Design and Construction**

For new construction or major renovations. Includes:

- New Construction
- Core & Shell

BD+C also includes applications for: Schools, Retail, Hospitality, Data Centers, Warehouses & Distribution Centers and Healthcare.

This chart summarizes the potential performance categories Dinoflex recycled rubber products may contribute to help your project attain credits for each category.

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terial Ingredients	Materials and Resources	LEED BD+C: New Constriction v4.1-LEED v4
Emitting Materials	Indoor Environmental Quality	LEED BD+C: New Constriction v4.1-LEED v4
Innovation	Innovation	LEED BD+C: New Constriction v4.1-LEED v4
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#### **Environmental Product Declarations**

## **Materials and Resources**

#### **Intent**

To encourage the use of products and materials for which life-cycle information is available and that have environmentally, economically, and socially preferable life-cycle impacts. To reward project teams for selecting products from manufacturers who have verified improved environmental life-cycle impacts.

## Requirements

Option 1. Environmental Product Declaration (EPD) (1 point)

Use at least 20 different permanently installed products sourced from at least five different manufacturers that meet one of the disclosure criteria below. (10 different permanently installed products from three different manufacturers for CS and Warehouses & Distribution Centers).

- Life-cycle assessment and environmental product declarations.
  - o Products with a publicly available, critically reviewed life-cycle assessment conforming to ISO 14044 that have at least a cradle to gate scope are valued as one whole product for the purposes of credit achievement calculation.
  - o Product-specific Type III EPD -- Internally Reviewed. Products with an internally critically reviewed LCA in accordance with ISO 14071. Products with product specific internal EPDs which conform to ISO 14025, and EN 15804 or ISO 21930 and have at least a cradle to gate scope are valued as one whole product for the purposes of credit achievement calculation.
  - o Industry-wide Type III EPD -- Products with third-party certification (Type III), including external verification, in which the manufacturer is explicitly recognized as a participant by the program operator. Products with industry wide EPDs, which conform to ISO 14025, and EN 15804 or ISO 21930 and have at least a cradle to gate scope are valued as one whole product for the purposes of credit achievement calculation.
- Environmental Product Declarations which conform to ISO 14025 and EN 15804 or ISO
- Product-specific Type III EPD -- Products with third-party certification (Type III), including external verification and external critical review are valued as 1.5 products for the purposes of credit achievement calculation.

# Sourcing of Raw Materials - Materials and Resources

#### Intent

To encourage the use of products and materials for which life cycle information is available and that have environmentally, economically, and socially preferable life cycle impacts. To reward project teams for selecting products verified to have been extracted or sourced in a responsible manner.

#### <u>Requirements</u>

Responsible Sourcing of Raw Materials (1-2 points)

Use products sourced from at least three different manufacturers that meet at least one of the responsible sourcing and extraction criteria below for at least 15%, by cost, of the total value of permanently installed building products in the project (1 point).

Use products sourced from at least five different manufacturers that meet at least one of the responsible sourcing and extraction criteria below for at least 30%, by cost, of the total value of permanently installed building products in the project (2 points).

- Extended producer responsibility. Products purchased from a manufacturer (producer) that participates in an extended producer responsibility program or is directly responsible for extended producer responsibility. Products meeting extended producer responsibility criteria are valued at 50% of their cost for the purposes of credit achievement calculation.
- Bio-based materials. Bio-based products and materials other than wood must be tested using ASTM Test Method D6866 or equivalent method ISO 16620-2, or be certified to the USDA BioPreferred Voluntary Labeling Initiative that includes verification via ASTM 6866 testing. Exclude hide products, such as leather and other animal skin material.
  - o Bio-based products that meet the criteria above: value at 50% of cost multiplied by the biobased content of the product for the purposes of credit achievement calculation.
  - o Bio-based products that meet the Sustainable Agriculture Network's Sustainable Agriculture Standard in addition to the testing requirements above: value at 100% of cost multiplied by the biobased content of the product for the purposes of credit achievement calculation.
- Wood products. Wood products must be certified by the Forest Stewardship Council or USGBC-approved equivalent. Products meeting wood products criteria are valued at 100% of their cost for the purposes of credit achievement calculation.
- Materials reuse. Reuse includes salvaged, refurbished, or reused products. Products meeting materials reuse criteria are valued at 200% of their cost for the purposes of credit achievement calculation.
- \*Recycled content. Products meeting recycled content criteria are valued at 100% of their cost for the purposes of credit achievement calculation.
  - o Recycled content is the sum of postconsumer recycled content plus one-half the preconsumer recycled content, based on weight.
  - o The recycled fraction of the assembly is then multiplied by the cost of assembly to determine the recycled content value.

For credit achievement calculation, products sourced (extracted, manufactured, and purchased) within 100 miles (160 km) of the project site are valued at twice their base contributing cost, up to a maximum of 200% of cost.

# Material Ingredients - Materials and Resources

#### Intent

To encourage the use of products and materials for which life-cycle information is available and that have environmentally, economically, and socially preferable life-cycle impacts. To reward project teams for selecting products for which the chemical ingredients in the product are inventoried using an accepted methodology and for selecting products verified to minimize the use and generation of harmful substances. To reward raw material manufacturers who produce products verified to have improved life-cycle impacts.

#### Requirements

Option 1. Material Ingredient Reporting (1 point)

Use at least 20 different permanently installed products from at least five different manufacturers that use any of the following programs to demonstrate the chemical inventory of the product to at least 0.1% (1000 ppm). (10 different permanently installed products from at least three different manufacturers for CS and Warehouses & Distribution Centers)

- ANSI/BIFMA e3 Furniture Sustainability Standard. The documentation from the assessor or scorecard from BIFMA must demonstrate the product earned at least 3 points under 7.5.1.3 Advanced Level in e3-2014 or 3 points under 7.4.1.3 Advanced Level in e3-2012.
- Cradle to Cradle. Product has Material Health Certificate or is Cradle to Cradle Certified™ under standard version 3 or later with a Material Health achievement level at the Bronze level or higher.
- Declare. The Declare product label must meet the following requirements:
  - o Declare labels designated as Red List Free, LBC Red List Free, or Declared.
  - o Declare labels designated as LBC Red List Approved or LBC Compliant that demonstrate content inventory to 0.1% (1000 ppm).
- Facts NSF/ANSI 336: Sustainability Assessment for Commercial Furnishings Fabric at any certification level.
- Global Green TAG PHD labels issued after January 1, 2020.
- Health Product Declaration. The end use product has a published and complete Health Product Declaration with full disclosure of known hazards in compliance with the Health Product Declaration Open Standard.
- Living Product Challenge. The included Declare product label must demonstrate content inventory to 0.1% (1000 ppm).
- Manufacturer Inventory. The manufacturer has published complete content inventory for the product following these guidelines:
  - o A publicly available inventory of all ingredients identified by name and Chemical Abstract Service Registration Number (CASRN) and/or European Community Number (EC Number).

- o Materials defined as trade secret or intellectual property may withhold the name and/or CASRN/EC Number but must disclose ingredient/chemical role, amount and hazard score/class using either:
- Greenscreen List Translator (LT) score and/or Full GreenScreen Benchmark (BM)
- The Globally Harmonized System of Classification and Labeling of Chemicals rev.6 (2015) (GHS)
- The hazard screen must be applied to each trade secret ingredient and the inventory lists the hazard category for each of the health hazards included in Part 3 of GHS (e.g., "GHS Category 2 Carcinogen").
- Product Lens Certification

Any compliant reports above with third-party verification that includes the verification of content inventory are worth 1.5 products for credit achievement calculations.

# Low-Emitting Materials - Indoor Environmental Quality

#### Intent

To reduce concentrations of chemical contaminants that can damage air quality and the environment, and to protect the health, productivity, and comfort of installers and building occupants.

## Requirements

Use materials on the building interior (everything within the waterproofing membrane) that meet the low-emitting criteria below. Points are awarded according to Table 1:

2 Product Categories	1 Point	
3 Product Categories	2 Point	
4 Product Categories	3 Point	
5 Product Categories	4 Point	
Reach 90% Threshold in at least three product categories	Exemplary performance or 1 additional point if only 2 points are achieved	

#### Adhesives and Sealants

At least 75% of all adhesives and sealants, by volume or surface area, meet the VOC emissions evaluation AND 100% meet the VOC content evaluation. To meet the 100% requirement for VOC content evaluation, a VOC budget may be used.

The adhesives and sealants product category includes all interior adhesives and sealants wetapplied on site.

## **Flooring**

At least 90% of all flooring, by cost or surface area, meets the VOC emissions evaluation OR inherently non-emitting sources criteria, OR salvaged and reused materials criteria.

The flooring product category includes all types of hard and soft surface flooring (carpet, ceramic, vinyl, rubber, engineered, solid wood, laminates), raised flooring, wall base, underlayment's, and other floor coverings.

Exclude subflooring (include subflooring in the composite wood category, if applicable. Exclude wet-applied products applied on the floor (include in paints and coatings category).

## **Innovation -** Sustainable solutions created through innovative thinking

#### Intent

To encourage projects to achieve exceptional or innovative performance to benefit human and environmental health and equity. To foster LEED expertise throughout building design, construction, and operation and collaboration toward project priorities.

## Requirements

To achieve all five innovation points, a project team must achieve at least one pilot credit, at least one innovation credit and no more than two exemplary performance credits.

Option 1. Innovation (1 point)

Achieve significant, measurable environmental performance using a strategy not addressed in the LEED green building rating system. Identify the following:

- the intent of the proposed innovation credit.
- proposed requirements for compliance.
- proposed submittals to demonstrate compliance; and
- the design approach or strategies used to meet the requirements.

Examples of innovation may be found in the LEED Innovation Catalog.

# **Strategies:**

- 1) Dinoflex interlocking recycled rubber indoor flooring requires no adhesive in certain applications. This product extends life as it can be managed and turned over and re-used or removed and used in another application.
- 2) Dinoflex Underlay and Rubber Tiles contribute to Acoustic Performance and can be applied in demonstrating that the acoustical performance improvements of a building clearly enhance the indoor environment in ways consistent with the preservation of human health and maximization of occupant productivity.

<sup>\*</sup>Detailed Recycled Content Charts are available for each product line, please contact Dinoflex for a copy of our Product Technical Data Sheets.

