

# Sourcing of Raw Materials

*This section summarizes the product documentation parameters to be reviewed to determine compliance with this credit in the BD+C and ID+C rating systems.*

## Credit Overview

To view detailed LEED v4.1 credit requirements, visit:

[BD+C v4.1 Sourcing of Raw Materials](#)

[ID+C v4.1 Sourcing of Raw Materials](#)

### BD+C & ID+C:

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).

OR

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).

## Exemplary Performance

Use at least 45%, by cost, of the total value of permanently installed building products that meet the credit criteria.

## Compliance Requirements At-A-Glance

All of the applicable requirements in the table below must be visible in the product document to be eligible for LEED v4.1.

	REQUIREMENTS	VALUATION
<b>Required for all</b>	<ul style="list-style-type: none"><li>Product type or description.</li><li>Names, product lines, or SKUs of products covered by the report.</li><li>Validity period displayed on the document (publication and expiration dates), as applicable.</li><li>The document demonstrates how the product or material achieves one or more attributes in the Sourcing of Raw Materials credit.</li></ul>	N/A
<b>Extended Producer Responsibility</b>	Documentation from manufacturer demonstrating the manufacturer funds or underwrites (financially or	50% of cost

	logistically, in whole or in part) an extended producer responsibility program that covers product take-back	
	OR	
	Manufacturer is directly responsible for extended producer responsibility for the product being purchased	
<b>Bio-based Materials</b>	Manufacturer documentation confirming compliance with ASTM D6866 or ISO 16620-2 AND Raw material type listed + Raw material legally harvested	50% of cost multiplied by the biobased content % of the product
	OR	
	Certified to the USDA BioPreferred Voluntary Labelling Initiative that includes verification via ASTM 6866 testing	
	OR	
	Bio-based products that meet the Sustainable Agriculture Network's Sustainable Agriculture Standard AND Meet ASTM Test Method D6866 or ISO 16620-2	100% of cost multiplied by the biobased content % of the product
<b>Wood Products</b>	Forest Stewardship Council certification AND CoC Number indicated on final product document extended to Manufacturer	100% of cost
	OR	
	Pilot Alternative Compliance Path: Legal Wood (see Additional Guidance for more info)	
<b>Materials Reuse</b>	Reuse includes salvaged, refurbished, or reused products	200% of cost
<b>Recycled Content</b>	Post-consumer recycled content and/or pre-consumer recycled content in manufacturer product document	100% of cost multiplied by recycled content % (see Additional Guidance for calculating recycled content)
	OR	
	Recycled content is included in a certified document (type III EPD, verified recycled content certificate, etc.)	

## Additional Guidance

The following guidance is made available in addition to guidance provided under 'Further Explanation' section of the LEED v4.1 BD+C or LEED v4.1 ID+C beta Reference Guide.

- BD+C: Products considered for this credit include permanently installed building products and exclude mechanical, plumbing, electrical, (MEP) and specialty equipment and items purchased for temporary use on the project. Furniture is not considered permanently installed and is not required to be included in the credit. However, furniture as well as other optional MEP products may be included and are required to be included if they are used in the Environmental Product Declaration or Material Ingredients credits.
- ID+C: Include furniture and furnishings within the project's scope of work.
- Multiple criteria: some products will have documentation supporting more than one sourcing attribute, such as a product with a FSC Recycled label and recycled-content percentage also shown.
  - FSC & Recycled Content: In these instances, the project team must choose whether to classify the product (or some fraction of the assembly) as either FSC certified or recycled content; the material cannot contribute to both claims simultaneously.
  - FSC & SAN Certified: Products certified by both FSC and to the Sustainable Agriculture Standard may receive credit for each criteria.
- No single product may contribute more than 200% of cost.
- All product reports must be valid at the time the product was purchased for the project.

## Extended producer responsibility:

- *General EPR Program Guidelines for LEED:*
  - EPR programs must demonstrate that they are active programs (not pilots) and that manufacturers (or manufacturing industry groups) are responsible (partially or fully) for financial and/or logistical take back of products at end of use.
    - Referrals to third-party vendors who perform refurbishment or recycling services does not qualify as EPR unless the vendor programs are supported directly (financially or logistically) by the manufacturer.
    - An EPR program that requires the purchase of new materials from the company in order to participate does not meet the LEED eligibility criteria.
  - EPR claims must be made in accordance to ISO 14021.
  - EPR Programs included in other valid certified documents (EPDs, other multi-attribute certifications) can be eligible so long as the program information showing compliance with the EPR provisions in LEED are included, or such information provided in additional links or documentation.
- *Manufacturer-based EPR programs.* The manufacturer of the product has a take-back or recycling program for the product purchased. Documentation can be a brochure describing the EPR program and including contact information, plus proof that the product purchased for the project is included in the program. Documentation may also be a letter from the manufacturer verifying that an EPR program is in place and that the product purchased for the project is eligible, with contact information. Documentation should note where the materials can be collected and where the materials go upon collection.
- *Third-party or Industry EPR programs.* Third-party programs must demonstrate that the program is underwritten (in whole or in part, logistically or financially) by the manufacturer of the product being purchased. Acceptable documentation is a brochure that describes the recycling process and states the average rate of return for the material. The manufacturer shall also provide a narrative that includes collection facility locations, description of how materials are processed, and fate of materials after they are processed.
- The following EPR Programs have been deemed eligible for LEED v4.1 when they meet the above criteria:
  - Armstrong Flooring – [On & On program](#)
  - Armstrong Ceilings – [recycling program](#)
  - Bentley carpet – [Fulfill Reclamations](#)
  - Carnegie Fabrics – Xorel [Responsible Return Program](#)
  - Certainteed – ceiling tile [take-back program](#)
  - Crossville – porcelain [Tile Take-Back program](#)
  - Flexco – [IMPACT Program](#) (rubber and vinyl flooring)
  - Interface – [ReEntry Program](#) (for approved products)
  - Shaw Contract – [ReTurn Program](#) (for EcoWorx tile or broadloom carpet)
  - Rockwood / Assa Abloy / McKinney group brands – [Product End-Of-Life Recycling](#)

- Roppe Flooring – [Impact Program](#)
- USG/CGC – [Ceilings Recycling Program](#)
- [Carpet America Recovery Effort \(CARE\)](#) – compliant only for carpets installed in California.

## Bio-based materials:

- Bio-based products and materials exclude wood and hide products (e.g., leather and other animal skin material).
- Products with bio-based claims must be legally harvested by exporting and receiving country.
- Manufacturers/Programs must provide documentation on the specific product that includes the type of bio-based raw material used within the product. In addition, products must have either of the following:
  - Confirmation the ASTM D6866 test method was conducted which validates the percent by weight of bio-based material within the product.
  - Product has been certified to the USDA BioPreferred Program and includes the Voluntary Labeling verification of bio-based content via ASTM 6866 or ISO 16620-2 testing.
- Some products listed on the United States Department of Agriculture’s BioPreferred Program Catalog include a voluntary labeling logo that indicates the bio-based content of the product has been verified per ASTM D6886 testing. [biopreferred.gov/BioPreferred](http://biopreferred.gov/BioPreferred)
- Project teams may include products with manufacturer-declared conformance to the Sustainable Agriculture Standard under the following three conditions:
  - The product’s manufacturer provides a signed letter on company letterhead from the raw material supplier attesting that its practices meet the standard.
  - The letter includes a link to a publicly available document that specifies how the raw material supplier’s practices conform to each paragraph in all 10 sections of the standard and attesting that each “critical criterion” is met.
  - Both the letter and the detailed documentation are dated within one year before the date of project registration.

## Wood products:

- Wood products that are not reused, salvaged, or recycled must be certified to the standards of the Forest Stewardship Council.
- Bamboo, nonwood forest products, and other materials that are not actually wood but are certified by FSC can count toward this credit.
- Products identified as “FSC 100%” contribute 100% x product cost.
- Products identified as “FSC Recycled” contribute 100% x product cost.
- Products identified as “FSC Mix [NN]%” contribute the FSC content percentage indicated. For example, a product identified as “FSC Mix 75%” is valued at 75% x product’s cost.
- For information on the Legal Wood alternative compliance pathway, see the LEED pilot credit at: [MRpc102 Legal Wood](#)
- Each product shipped to the project site and contributing toward FSC credit must be documented by an invoice from the CoC certificate holder as follows:
  - The invoice must have the vendor’s CoC certificate code (e.g., RA-COC-001025, SCS-COC-000345, or SGSCOC-002563). The invoice must itemize FSC-certified products and specific FSC claims.
  - The invoice may aggregate the value of products, provided the cost of FSC products is isolated from other wood products and the vendor’s CoC certificate code is on the invoice.
  - The invoice must show the entity being invoiced and indicate the delivery is intended for the LEED project.
- An alternative documentation process is available for architectural woodworkers (manufacturers of millwork, casework, and furniture) who supply custom wood products to the project. The purpose of this alternative process is to allow FSC-certified materials used in a custom millwork, casework, or furniture package to contribute toward the credit even if the entire package is not eligible to be invoiced with a FSC claim. Documentation for this alternative process must meet all of the following requirements:
  - The woodworker (whether an individual or a company) must be FSC CoC certified, and the CoC certificate number must appear on the project invoice.
  - The woodworker must install the custom millwork, casework, or furniture.
  - The woodworker’s invoice must isolate product costs from installation costs.

- The woodworker must provide a document, separate from the project invoice, detailing FSC-certified wood materials used and total cost of wood materials used. (The woodworker does not need to provide itemized material cost calculations but must maintain calculation records for auditing purposes by the FSC certifying body.)
- The contract cost may include assembly labor but must exclude on-site labor.
- The project team should complete a spreadsheet itemizing wood components by cost and identifying FSC-certified and noncertified components to determine overall contributions to the credit, to be entered into the MR calculator. Calculate the FSC-certified contribution value toward the credit by multiplying the percentage of FSC-certified wood by the overall value of the contract. Calculate the percentage of FSC-certified wood by dividing the cost of FSC-certified wood by the total cost of the wood. Submit the FSC-certified contribution value as well as the total contract amount. Include the woodworker's CoC certificate number, invoice, and itemized costs.

## Materials reuse:

- Reused materials are components that are retained either in their original function or in a new role. Both are eligible for this credit.
- Reused materials cannot be double-counted as recycled content materials.
- For reused materials, the source location of extraction or harvest is the location of the materials before their removal to the project site. For material taken directly from another building, the source location is the building. For items purchased from a building materials salvage store or recycling facility, the source location is the store or facility. In this case, it is not necessary to track material to the original building.
- For reused materials found on site, the source location distance is zero.
- Materials obtained off-site qualify as reused if they were previously used in a building or other application. These materials may be purchased as salvaged, like any other project material, or moved from another facility, including facilities used or owned by the LEED project owner.
- For salvaged furniture taken from the owner's previous facility or location, demonstrate that these materials were purchased at least two years before the date of project registration. For example, if the owner is moving to a new building, furniture and furnishings relocated to the new site can contribute to this credit because their reuse will eliminate the need for purchasing new furniture and furnishings. Alternatively, furniture that is leased must have been in service for at least two years before being installed in the current project. Document this claim.
- To calculate reuse cost: The cost will be the actual cost paid or, if the material came from on-site, the replacement value. The replacement value can be determined by pricing a comparable material in the local market; exclude labor and shipping. If a project team receives a discount from a vendor, the replacement value should reflect the discounted price as opposed to the list value. When the actual cost paid for the reused or salvaged material is below the cost of an equivalent new item, use the higher value (actual cost) cost of the new equivalent item in the calculations. When the cost to reclaim an item found on-site is less than the cost of an equivalent new item, use the cost of the new item (or replacement cost).

## Recycled content:

- Recycled content is defined per ISO 14021 as:
  - Postconsumer recycled content: waste generated by households or commercial, industrial and institutional facilities in their role as end users of a product that can no longer be used for its intended purpose.
  - Preconsumer recycled content: matter diverted from the waste stream during the manufacturing process, determined as the percentage of materials, by weight or mass. Examples include planer shavings, sawdust, bagasse, walnut shells, culls, trimmed materials, overissue publications, and obsolete inventories. The designation excludes rework, regrind, or scrap materials capable of being reclaimed within the same process that generated them. This type of recycled content is also sometimes known as "post-industrial."
- Recycled content contributes by:  $[\text{sum of the post-consumer content} + (1/2) \text{ of the pre-consumer content}] \times \text{product cost}$ .
- Recycled content is based on mass or weight.
- Where recycled content is presented as a range of minimum and maximum recycled content value, LEED will assume the lowest value in the range.
- When the type of recycled content is not known, the value will be assumed to be pre-consumer (lower value).

- Industry-wide or average recycling rates are not acceptable EXCEPT for steel products where LEED allows a default recycled content value of 25% post-consumer for steel products or steel components within a product.
- Third party verified recycled content claims are sometimes found as stand-alone certificates or within other product certifications that provide recycled content rates (like EPDs, HPDs, etc.).

## Submittal Tips

### Extended Producer Responsibility:

- The manufacturer brochure (or website) for each contributing product must describe the EPR program, including contact information and proof that the product is included in the program or describing the recycling process and stating the average rate of return for the material.
- For a third-party Extended Producer Responsibility Program (EPR) program, acceptable documentation is a brochure that describes the recycling process and states the average rate of return for the material.
- If a paint manufacturer qualifies for PaintCare in California, provide a manufacturer letter or other documentation that demonstrates that the manufacturer is eligible for the program, which paints purchased are eligible for the program, and that any leftovers or other waste paint was (or will be) taken to a PaintCare recovery center. Note that only paint products purchased that are eligible and covered by PaintCare at the time of purchase can contribute and that PaintCare receipts must be provided.
- Note if the carpet manufacturer is involved with the California Carpet America Recovery Effort, they will be included in this list of the participants: <https://calrecycle.ca.gov/Carpet/MfrBrands/>

### Bio-based materials:

- Bio-based products and materials other than wood (and hide products) 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.
- Find products at the USDA BioPreferred database: [biopreferred.gov](http://biopreferred.gov)

### Wood products:

- Ensure an invoice from each final CoC certificate holder has been provided for all FSC certified non-custom wood products.
- Be sure each invoice includes the vendor's CoC certificate code, an itemized list of FSC-certified products and specific FSC claims, the entity being invoiced, and an indication that the delivery is intended for the LEED project.
- Be sure to include the wood materials in the furniture installed in the project in the calculation.
- If there are contributing custom wood products, ensure documentation from the woodworker (in addition to the invoice) details the FSC-certified wood materials used and includes a total cost to the end-user/project of wood materials used.
- FSC certified recycled content may not be counted as both FSC certified and recycled content. FSC 100% products must be listed as meeting the FSC criterion only, while FSC Recycled products must be listed as meeting only the post-consumer recycled content criterion. Additionally, FSC Mix products must be listed as either compliant with the FSC criterion OR one of the recycled content criterion, but cannot total more than 100% of the product.
- For the Legal Wood ACP, ensure that the Legal Wood calculator, the copy of the Pilot Credit registration confirmation email, and a copy of the Pilot Credit survey confirmation email are provided. After calculating the Legal Wood calculation, add the total information into the Building Material calculator.