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ecore™

Commercial

**Polyflor**

**& LEED**

How P Can Contribute to  
Obtaining LEED® v4 Credits.



Revised on 07/06/17  
Supersedes all previous versions.  
Check website for updates.

# Polyflor

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# What is LEED?

## Overview

Ecore is the United States distributor of a premium line of vinyl flooring product manufactured by Polyflor Ltd. Polyflor rx provides positive environmental attributes because of low VOC emissions, Recofloor take back program, and recycled content, making it an environmentally preferable flooring solution for a number of applications. These environmental benefits enable it to potentially contribute to a number of points under the LEED rating system. We at Ecore designed this educational guide to assist specifiers in understanding how Polyflor products can apply to the LEED v4 rating system.

## What Is LEED?

LEED has driven the green building market by creating a demand for environmentally preferable building products. This helped to transform the way we think about how our buildings and communities are designed, constructed, maintained, and operated.

LEED addresses the entire building lifecycle. Building projects must satisfy prerequisites and earn points to achieve different levels of certification. Prerequisites and credits differ for each of the four rating systems. A project team must determine which rating system and category is the best fit for their project.

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## Rating Systems:

### Building Design & Construction (BD+C)

This rating system is appropriate for new construction and major renovation of these categories: New Construction, Core and Shell, Schools, Retail, Hospitality, Data Centers, Warehouses and Distribution Centers, Healthcare, Homes, and Multifamily Midrise.

### Interior Design & Construction (ID+C)

This rating system is appropriate for interior spaces that are a complete interior fit-out of these categories: Commercial Interiors, Retail, and Hospitality.

### Building Operations & Maintenance (O+M)

This rating system is appropriate for buildings that are undergoing improvement work with little to no construction. This system applies to these categories: Existing Buildings, Schools, Retail, Hospitality, Data Centers, and Warehouses and Distribution Centers.

### Neighborhood Development (ND)

This rating system is appropriate for new land development projects or redevelopment projects containing residential uses, nonresidential uses, or a mix. This system includes these categories: Neighborhood Development Plan and Built Project.

# How Forest rx and Terrain rx Can Apply to LEED

## The Benefits of LEED

Why is obtaining LEED certification beneficial? In addition to the obvious environmental benefits, certification proves to the market that a building is efficient and incorporates responsible building practices. LEED certification showcases environmental commitment and leadership to both the community and employees. As a result, positive publicity, and exposure could be generated.

Green buildings have also been proven to be more economically efficient as a result of these factors:

- Increased health and safety benefits for employees or students
- Increased employee productivity and lower turnover and absenteeism
- Increased sales in retail establishments
- Reduced operating costs
- Increased building evaluation and return on investment
- Qualification for money-saving incentives, like tax rebates and zoning allowances

## How Polyflor can apply to LEED

Many products have the potential to contribute points to LEED, but, since credits are based on the performance of all the products involved in a particular project, there is not one stand-alone product that can guarantee LEED credits. It is the combination and the weight of each that is critical.

Ecore's Polyflor products, which are manufactured Polyflor Ltd., meet the stringent criteria required to help earn points under 2 of the 5 categories of LEED—Materials and Resources and Indoor Environmental Quality. The Materials and Resources category deals with the conservation, purchasing, and waste management of physical products. Indoor Environmental Quality includes the conditions inside a building, such as air quality, lighting, thermal conditions, ergonomics, acoustics, and their effect on occupants. Based on these criteria, Polyflor products can, potentially, contribute up to 5 LEED points in BD+C and ID+C, 3.5 LEED points in BD+C: Homes/Midrise, and 3 LEED points in O+M.

### BD+C, ID+C: —LEED Credit Areas

Category	Credit Title	B+C Points Attainable	ID+C Points Attainable
<b>Materials &amp; Resources</b>	Building Product Disclosure and Optimization-Environmental Product Declarations	1	1
	Building Product Disclosure and Optimization-Sourcing of Raw Materials	1	1
	Construction and Demolition Waste Management	2	2
<b>Indoor Environmental Quality</b>	Low Emitting Materials	1	1

### O+M —LEED Credit Areas

Category	Credit Title	Points Attainable
<b>Materials and Resources</b>	Purchasing-Facility Maintenance and Renovation	1
	Solid Waste Management-Facility Maintenance and Renovation	2

### BD+C: Homes —LEED Credit Areas

Category	Credit Title	Points Attainable
<b>Materials &amp; Resources</b>	Construction Waste Management	3
<b>Indoor Environmental Quality</b>	Low Emitting Products	0.5

# BD+C, ID+C — Materials and Resources

## Definition of BD+C, ID+C Credits- Materials and Resources

### Building Product Disclosure and Optimization – Environmental Product Declarations (possible 2 points)

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:

- Product specific declaration (1/4 point)
- Industry-wide (generic) EPD (1/2 point)
- Product-specific Type III EPD (1 point)

AND/OR

Option 2: Multi-attribute optimization (1 point)

Use products that comply with one of the criteria below for 50%, by cost, of the total value of permanently installed products in the project. Third party certified products that demonstrate impact reduction below industry average in at least three of the following categories are valued at 100% of their cost for credit achievement calculations.

- Global warming potential (greenhouse gases)
- Depletion of the stratospheric ozone layer
- Acidification of land and water sources
- Eutrophication
- Formation of tropospheric ozone
- Depletion of nonrenewable energy resources

### How Polyflor can Contribute:

Polyflor has obtained an externally verified, generic Environmental Product Declaration for their products. Expona Design PUR and Expona Commercial PUR have product specific EPDs. To view Polyflor's EPDs, please visit: <http://www.polyflor.com/jh/web.nsf/sustainability>.

### Potential Strategies:

Research and specify products from manufacturers who have available EPDs or that meet one or more of the attributes listed in the credit requirements under Option 2. During construction, coordinate a review of the submittals to ensure that selected products meet credit requirements. To track progress toward credit achievement, regularly enter information into the Materials and Resources Building Product Disclosure and Optimization calculator. Calculate compliance of products and materials using the equations provided by the USGBC.



# BD+C, ID+C — Materials and Resources

## Definition of BD+C, ID+C Credits- Materials and Resources:

### **Building Product Disclosure and Optimization - Sourcing of Raw Materials (possible 2 points)**

Option 1: Raw Material Source and Extraction Reporting (1 point)

Use at least 20 different permanently installed products sourced from at least five different manufacturers that have publically released a report from their raw material suppliers, which include, raw material supplier extraction locations, a commitment to long-term ecologically responsible land use, a commitment to reducing environmental harms from extraction and/or manufacturing processes, and a commitment to meeting applicable standards or programs voluntarily that address responsible sourcing criteria. Reports from manufacturers may be self-declared (0.5 points) or a third-party verified corporate sustainability report (1 point).

AND/OR

Option 2: Leadership Extraction Practices (1 point)

Use permanently installed building products that meet at least one responsible extraction criteria:

- Extended producer responsibility
- Bio-based materials
- Certified wood products
- Materials reuse
- Recycled content

### **How Polyflor can Contribute:**

Recycled content is defined in accordance with the International Organization for Standardization® document, ISO 14021 – Environmental labels and declarations:

- Postconsumer material – waste materials diverted from the waste stream after consumer or commercial use.
- Preconsumer material – material diverted from the waste stream during the manufacturing process. Excluded is rework, regrind, or scrap materials capable of being reclaimed within the same process that generated them.

Recycled content is the sum of postconsumer recycled content plus one-half the preconsumer recycled content, based on cost. Products meeting recycled content criteria are valued at 100 percent of their cost for the purposes of credit achievement calculation.

Polyflor recycled content varies by product. Please see the recycled content chart on page 7.

### **Potential Strategies:**

Establish a project goal to utilize materials from manufacturers who disclose raw material sourcing information and/or manufacturers that utilize responsible extraction. During the design phase, specify products that meet one or more of the criteria listed in the credit requirements. Try to focus on applications that use either significant quantities of materials or small amounts of high-cost materials. During construction, track your purchases in the Materials and Resources Building Product Disclosure and Optimization calculator. Do not forget to collect relevant documentation from manufacturers.

**Polyflor Recycled Content**

	<b>Total Recycled Content</b>	<b>Pre-Consumer</b>	<b>Post-Consumer</b>
Pearlazzo PUR	25%	25%	0%
2000 PUR	25%	25%	0%
Classic Mystique PUR	25%	25%	0%
Bloc PUR	10%	10%	0%
Forest fx PUR	10%	10%	0%
Expona Flow PUR	10%	10%	0%
Expona Commercial PUR	40%	40%	0%
Expona Design PUR	40%	40%	0%
Expona Control PUR	40%	40%	0%
Polysafe Verona PUR	2%	2%	0%
Polysafe Vogue Ultra PUR	2%	2%	0%
Polysafe Arena PUR	10%	10%	0%
Polysafe Modena PUR	10%	10%	0%
Polysafe Wood Fx PUR	10%	10%	0%
Polysafe Hydro Evolve	2%	2%	0%
Polysafe Apex	2%	2%	0%

# BD+C, ID+C — Materials and Resources

## Definition of BD+C, ID+C Credits — Materials and Resources:

### Construction and Demolition Waste Management

Option 1: Diversion (1-2 Points)

Path 1 (1 point): Divert at least 50 percent of the total construction and demolition from at least three material streams.

OR

Path 2 (2 points): Divert at least 75 percent of the total construction and demolition material from at least four material streams.

OR

Option 2: Reduction of Total Waste (2 points)

Do not generate more than 2.5 pounds of construction waste per square foot of the building's floor area.

### How Polyflor can Contribute:

The Recofloor program (of which Polyflor is a founding and funding member) complies with site waste management legislation and diverts vinyl flooring waste (offcuts and uplifted) from going to landfill. For more information on Polyflor's Recofloor program, please visit <http://www.polyflor.com/jh/web.nsf/sustainability/>.

### Potential Strategies:

The key to success for this credit is to start early to allow time for planning and coordination, identifying strategies, developing contractual agreements, and educating project teams. Be sure to integrate the contractor into the early design phase. Establish goals of diversion from disposal in landfills and incineration facilities, and adopt a construction waste management plan to achieve these goals. Goals and strategies for waste diversion should be developed as part of the construction waste management plan prerequisite.

Identify products that can be recycled or whose manufacturer offers a take back program. Consider recycling cardboard, metal, brick, rubber, concrete, plastic, clean wood, glass, gypsum wallboard, carpet, and insulation. Other strategies include source reduction, such as modular construction, reduced packaging, pre-fabrication, and diversion options. Establish infrastructure, practices, and policies, such as designating a specific area on the construction site for segregated or commingled collection of recyclable materials. Be sure to track recycling efforts throughout the construction process, keeping reports and receipts for documentation. It is also helpful to calculate diversion rates regularly so adjustments can be made to meet goals.





# BD+C, ID+C — Indoor Environmental Quality

## Definition of BD+C, ID+C Credits — Indoor Environmental Quality

### Low Emitting Materials (Possible 3 points)

This credit details requirements for volatile organic compound (VOC) emissions into indoor air and the VOC content of materials, as well as the testing methods by which indoor VOC emissions are determined. Different materials must meet different requirements to be considered compliant for this credit.

#### Option 1: Product Category Calculations

Achieve the threshold level of compliance with emissions and content standards for the maximum number of product categories.

#### Option 2: Budget Calculation Method

If some products in a category do not meet the criteria, project teams may use the budget calculation method in which they achieve points for percentage compliance.

#### Thresholds of compliance with emissions and content standards for flooring:

Category	Threshold	Emissions and Content Requirements
Flooring	100%	Emissions: California Department of Public Health (CDPH) Standard Method v1.1–2010



### How Polyflor can Contribute:

Polyflor products have earned FloorScore certification. The FloorScore program was developed by the Resilient Floor Covering Institute (RFCI) in conjunction with SCS Global Services, which tests and certifies flooring as well as flooring adhesive products, and certifies production facilities for compliance with rigorous indoor air quality emission requirements. Individual volatile organic compounds (VOCs) are evaluated using health-based specification. Flooring and adhesives that earn FloorScore certification qualify for use in high performance schools and office buildings. Products are tested to the California Standard Method for VOC Emissions Testing and Evaluation (Standard Method v1.1), otherwise known as CA Section 01350. This is the general emissions standard that must be met under LEED v4's low emitting products credit. Bearing the FloorScore label also qualifies Polyflor products for the Collaborative for High Performance Schools (CHPS).

### Potential Strategies:

Prior to purchasing, it is important to research and specify low or nonemitting products. Specifying only compliant products is the easiest way to ensure credit requirements are met and the building will have the lowest possible emissions. Request and review the specific documentation that will be required for the certification review, such as data sheets, product cut sheets, third-party certificates, signed attestations, or other official literature from the manufacturer clearly identifying the VOC contents or compliance with referenced standards. Calculate compliance based on the option you have selected. Flooring systems are generally comprised of multiple components, so be sure to identify all components in a spreadsheet matrix, including adhesives, underlayments, grouting, stain, and sealers applied on site.

# O+M — Materials and Resources

## Definition of O+M— Materials and Resources:

### Purchasing - Facility Maintenance and Renovation (possible 2 points)

#### Option 1: Products and Materials (1 point)

Purchase at least 50 percent, by cost, of the total maintenance and renovation materials that meet at least one of these criteria:

- Recycled content
- Wood products
- Bio-based materials
- Materials reuse
- Extended producer responsibility
- GreenScreen v1.2 Benchmark
- Cradle to Cradle Certified
- REACH Optimization
- Product Manufacturer Supply Chain Optimization
- Low emissions of VOCs
- VOC content requirements for wet-applied products
- Low emissions of formaldehyde

AND/OR

#### Option 2: Furniture (1 point)

Purchase at least 75%, by cost, of total furniture and furnishings that meet one or more of these criteria:

- Recycled content
- Wood products
- Bio-based materials
- Materials reuse
- Extended producer responsibility
- GreenScreen v1.2 Benchmark
- Cradle to Cradle Certified
- REACH Optimization
- Product Manufacturer Supply Chain Optimization
- Low emissions of VOCs

OR

#### Option 3: No Alterations or Furniture Purchasing (1 point)

Make no alterations to the project space and do not purchase any furniture.

### How Polyflor can Contribute:

Polyflor products can potentially contribute to three of the above criterion: recycled content, extended producer responsibility, and low emissions of VOCs. Some Polyflor products contain pre-consumer recycled content. For more information on recycled content, please refer to pages 6-7 of this guide.

Polyflor's extended producer responsibility program is called Recofloor, under which Polyflor can take back scrap and old material. For more information about the Recofloor program, please see page 8.

Polyflor products have met low emissions standards through FloorScore certification. To learn more about FloorScore certification, please see page 9.

### Potential Strategies:

Review schedules for space planning or tenant fit-outs to determine whether maintenance, renovations, or furniture purchases will occur during the performance period. Determine which credit options are suitable for the project and timeline. Teams may select Option 1 and 2 simultaneously or Option 3. For option 1 and 2, evaluate purchasing patterns and determine percentage compliance. Try to swap out non-compliant items for compliant substitutes. Develop a tracking system to gather data for all purchases for the building. For option 3, verify that no facility renovation activities will be undertaken during the pre-determined performance period.

# O+M — Materials and Resources

## Definition of O+M — Materials and Resources:

### **Solid Waste Management - Facility Maintenance and Renovation (possible 2 points)**

Divert at least 70 percent of the waste (by weight or volume) generated by facility maintenance and renovation activities from disposal in landfills and incinerators. Include materials and products permanently and semi-permanently installed in the project (flooring, wall coverings, etc.).

Exclude furniture and furnishings that pose human health concerns as well as components not considered base building elements; mechanical, electrical, and plumbing components; and specialty items (such as elevators).

### **How Polyflor can Contribute:**

Polyflor's extended producer responsibility program is called Recofloor, under which Polyflor can take back scrap and old material. For more information about the Recofloor program, please see page 8.

### **Potential Strategies:**

Implement the facility maintenance and renovations solid waste management policy developed in the corresponding prerequisite. As maintenance and renovation projects are scheduled, be sure to share this policy with contractors and other personnel involved in the work, so waste diversion goals can be met. You may adapt your policy to better suit renovations projects as they come along. Develop a tracking system to gather data on all facility maintenance and renovations waste during the performance period.



## Definition of BD+C: Homes and Midrise — Materials and Resources:

### Construction Waste Management (possible 3 points)

Reduce total construction waste or divert from landfills and incinerators a large proportion of the waste generated from new construction. Excavated soil, land-clearing debris, and alternative daily cover (ADC) do not qualify for this credit. Any waste-to-energy is not considered recycling for this credit.

Percentage reduction	Points
10%	0.5
20%	1.0
30%	1.5
40%	2.0
50%	2.5
60%	3.0

### How Polyflor can Contribute:

Polyflor’s extended producer responsibility program is called Recofloor, under which Polyflor can take back scrap and old material. For more information about the Recofloor program, please see page 8.

### Potential Strategies:

During the design phase, establish waste reduction goals. Try preventing construction waste by using modular construction, precut materials, and purchasing only as much as you need. For the waste that is generated, develop a waste management reduction plan regarding sorting and diverting waste materials. Document quantities of waste and calculate compliance based on percentage reduced.



# BD+C: Homes and Midrise — Indoor Environmental Quality

## Definition of BD+C: Homes and Midrise— Indoor Environmental Quality:

### Low-Emitting Products (possible 3 points)

In the interior of the home, use products that have been tested and found compliant with the California Department of Public Health Standard Method V1.1–2010, using CA Section 01350, Appendix B, New Single-Family Residence Scenario, for emissions testing guidance. At least 90 percent of a component must meet the requirements to earn credit.

Requirements for compliance for the low-emitting product categories Forest rx/Terrain rx can contribute to:

Product	Requirement	Points Attainable
Flooring	CA Section 01350	0.5 point

### How Polyflor can Contribute:

Polyflor products have earned FloorScore certification, which is tested to the California Standard Method for VOC Emissions Testing and Evaluation (Standard Method v1.1), otherwise known as CA Section 01350. For more information FloorScore certification, please see page 9 of this guide.

### Potential Strategies:

During the design phase, research low-emitting materials and finishes. Specify products and document compliance as you make purchases.



# About Ecore and Polyflor Ltd.

## Ecore

Ecore, the US distributor of Polyflor, was born “green,” and has been making smart choices for more than a century. What began as the Lancaster Cork Company in 1876 is now Ecore. Based in South Central, PA, Ecore started by harvesting the benefits of wood without harming a tree (Ecore cork products), and has evolved into mining waste streams for high performance raw materials, dominated currently by recycled rubber.

Ecore still produces cork, but its current focus is on transforming reclaimed waste into unique performance surfacing for the commercial, athletic, fitness, and sound insulation markets. As North America’s largest consumer of recycled scrap-tire rubber, Ecore transforms more than 75-million pounds of material every year into attractive, durable flooring. That’s like keeping more than 2,000 trailer loads of discarded tires out of America’s landfills, OR conserving more than a million barrels of oil. Ecore will continue to produce the smartest, highest-performing, and most eco-logically responsible flooring products in the U.S. The company is actively affiliated with the U.S. Green Building Council (USGBC) and the American Society of Testing Materials (ASTM).

## Polyflor Ltd

Like Ecore, Polyflor is a family-owned company operated by 4 generations. Established in 1915 near Manchester, England, Polyflor’s origins are in textiles, and the company is known as the pioneers in the production of homogeneous vinyl flooring. Today Polyflor has 10 subsidiaries and sales offices worldwide, offering a broad portfolio of commercial and domestic floor coverings. Like Ecore, Polyflor is also committed to the environment and is committed to reducing waste, energy use, and emissions. To learn more about Polyflor, visit [www.polyflor.com](http://www.polyflor.com).



For more information on Polyflor,  
Call **1-877-258-0843** or visit [www.ecorecommercialflooring.com](http://www.ecorecommercialflooring.com)

Manufactured by:

