

## LEED® v4 Certification Contributions

Armstrong Flooring solutions can help today’s green buildings be more resource efficient, and safer, healthier places to work. The below information demonstrates how Armstrong Flooring products contribute to the following LEED v4 (Leadership in Energy and Environmental Design) rating systems:

**Building Design and Construction (BD+C):**

- New Construction (NC), Core and Shell (CS), Schools, Retail, Healthcare, Data Centers, Hospitality, Warehouses, Distribution Centers, Multifamily Midrise

**Interior Design and Construction (ID+C)**

- Commercial Interiors (CI), Retail and Hospitality

**Building Operations and Maintenance (O+M)**

- Existing Buildings (EB), Schools, Retail, Hospitality, Data Centers, Warehouses & Distribution Centers

MATERIAL & RESOURCES	
CREDIT	CREDIT INTENT AND CONTRIBUTION
<p><b>Building Product Disclosure and Optimization – Environmental Product Declarations* Option 1</b></p> <p>BD+C (1 pt) ID+C (1 pt)</p>	<p>Increase the use of products and materials with life cycles, ingredients, and attributes that improve overall environmental, economic and social performance. Use at least 20 permanently installed products sourced from at least five different manufacturers that have product-specific declarations, industry-wide generic environmental product declarations (EPDs), or Product-specific Type III EPDs.</p> <p>Armstrong Flooring has conducted life cycle assessments and developed Product-Specific Type III EPDs to measure the environmental impact throughout the life cycle of many of our products. <a href="#">Click here</a> to review EPD documentation.</p>
<p><b>Building Product Disclosure and Optimization – Environmental Product Declarations* Option 2</b></p> <p>BD+C (1 pt) ID+C (1 pt)</p>	<p>Select products that demonstrate impact reduction below industry average in at least three of 5 impact reduction categories such as global warming potential and depletion of the stratospheric ozone.</p> <p>Armstrong Flooring participates in industry average EPD and offers several products that demonstrate impact reductions below industry average. <a href="#">Learn more</a></p>
<p><b>Building Product Disclosure and Optimization – Sourcing of Raw Materials (Option 1)*</b></p> <p>BD+C (1 pt) ID+C (1 pt)</p>	<p>Use at least 20 different permanently installed products from at least five different manufacturers that have publicly 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.</p> <p>Armstrong Flooring strives to reduce the environmental impacts of our products through responsible sourcing of our raw materials and through extending our producer responsibility down the supply chain. Please review our recent Sustainability Report and Code of Conduct.</p>

<p><b>Building Product Disclosure and Optimization – Sourcing of Raw Materials (Option 2)*</b></p> <p>BD+C (1 pt) ID+C (1 pt)</p>	<p>Use products that meet at least one of the responsible extraction criteria below for at least 25%, by cost, of the total value of permanently installed building products in the project: extended producer responsibility, bio-based materials, wood products, materials reuse, recycled content, or other USGBC approved programs.</p> <p><b>Extended Producer Responsibility:</b> Our On&amp;On™ Floor Recycling Program provides a closed loop product take-back and extended producer responsibility for vinyl flooring products. More information on our product end of life recycling programs can be found <a href="#">online</a>.</p> <p><b>Recycled Content:</b> Armstrong Flooring offers a variety of products with both pre- and post-consumer recycled content.</p> <p><b>Certified Wood:</b> Armstrong Flooring offers custom FSC® certified (FSC-C006997) mixed composite wood flooring with a variety of veneers to meet the growing demands of sustainable design projects. <a href="#">Learn more</a></p>
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*\*Note on Regional Materials: The Location Valuation Factor may not be applied to all products. For any of the relevant MR credits as the extraction of our raw materials are not within 200 miles of our manufacturing facility, and therefore will not be within a project site's 100 mile radius*

<p><b>Building Product Disclosure and Optimization – Material Ingredients: Material Ingredient Reporting (Option 1) *</b></p> <p>BD+C (1 pt) ID+C (1 pt)</p>	<p>Select products for which the chemical ingredients in the product are inventoried to at least 0.1% (1000ppm). Acceptable material disclosure methods include: a self-published manufacturer inventory (disclosing material name and CAS numbers, or role, amount and GreenScreen v1.2 benchmarks), a Health Product Declaration disclosing all known hazards, or, Cradle to Cradle Certified™ v2 basic level or Cradle to Cradle Certified™ v3 Bronze Level</p> <p>Armstrong Flooring seeks to understand and transparently report the materials we use in our products, ensuring that our products are safe for the consumer. Armstrong Flooring has published EPDs and Armstrong Product Declarations, both of which can be found online and provide material ingredient to 1000 ppm.</p>
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<p><b>Building Product Disclosure and Optimization – Material Ingredients: Material Ingredient Reporting (Option 2) *</b></p> <p>BD+C (1 pt) ID+C (1 pt)</p> 	<p>Use products that document their material ingredient optimization using the paths below for at least 25%, by cost, of the total value of permanently installed products in the project: GreenScreen v1.2 - 100 ppm and no Benchmark 1 hazards; Cradle to Cradle Certified™ v3 Silver or higher; REACH (International Projects Only)- No ingredients listed on the REACH Authorization or Candidate list</p> <p>Armstrong Flooring offers several adhesives that are Cradle to Cradle Certified™ Silver or higher. Armstrong Flooring does not contain any ingredient listed on the REACH Authorization or Candidate list. <a href="#">Learn more</a> about our product ingredient.</p>
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<p><b>Construction and Demolition Waste Management Prerequisite</b></p> <p>BD+C ID+C</p>	<p>Develop and implement a construction and demolition waste management plan.</p> <p>Let Armstrong <a href="#">On &amp; On Floor Recycling Program</a> be part of your Waste Management Plan</p>
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<p><b>Construction and Demolition Waste Management</b></p> <p>BD+C (1-2 pts) ID+C (1-2 pts)</p>	<p>Reduce construction and demolition waste disposed of in landfills and incineration facilities by recovering, reusing and recycling materials.</p> <p>Increase diversion percentage by diverting vinyl flooring products from the waste stream with the Armstrong On&amp;On™ Floor Recycling Program. The On&amp;On Floor Recycling Program is a closed loop product take-back program that recycles flooring into new flooring products and assists our customers with recycling and disposal of our products. We strive to design and make durable sustainable products that can be recycled. More information about our On&amp;On Floor Recycling Program can be found <a href="#">online</a>.</p>
<p><b>Purchasing – Facility Maintenance and Renovation (Option 1)</b></p> <p>O+M (1 pt)</p>	<p>Reduce the environmental harm from materials used in building renovations. Purchasing materials that incorporate recycled content, sustainably harvested wood, bio-based content, reused materials, and/or have extended producer responsibility, GreenScreen v1.2 Benchmarks, Cradle to Cradle Certified™, REACH Optimization and/or contain low VOC emissions.</p> <p>Armstrong Flooring strives to reduce the environmental impacts of our products through responsible sourcing of our raw materials and through extended producer responsibility. We integrate recycled content into our products to improve resource efficiency and offer FSC® certified wood flooring options to encourage responsible forest management. We use only safe, quality materials in our products as demonstrated through ingredient disclosure in our Armstrong Product Declarations and by our Cradle to Cradle Certified™ products. Most of our products are FloorScore certified, verifying low emitting criterion. Our Armstrong On&amp;On™ Floor Recycling Program provides extended producer responsibility through closed loop recycling. More information on our On&amp;On Floor Recycling Program can be found <a href="#">online</a>.</p>
<p><b>Solid Waste Management – Facility Maintenance and Renovation</b></p> <p>O+M (2 pts)</p>	<p>Divert construction, renovation, and demolition debris from disposal in landfills and incinerators and recover and recycle reusable materials.</p> <p>Many Armstrong Flooring products can be recycled and/or reused. Our Armstrong On&amp;On™ Floor Recycling Program provides extended producer responsibility through closed loop recycling. More information on our On&amp;On Floor Recycling Program can be found <a href="#">online</a>.</p>

**INTEGRATED PROCESS**

CREDIT	FLOORING CONTRIBUTION
<p><b>Integrative process</b></p> <p>BD+C (1 pt) ID+C (1 pt)</p>	<p>Identify and use opportunities to achieve synergies across disciplines and building systems. For Energy Related Systems assess interior surface reflectance values and lighting levels in occupied spaces.</p> <p>Armstrong Flooring can contribute to this credit. As light reflectivity (LR) value of flooring increase, the required lighting is reduced.</p> <p>Reference our <a href="#">Product Guide</a> for Armstrong Flooring light reflectivity (LR) values.</p>
<p><b>Daylight and Quality Views</b></p> <p>CS CI HC NC R S</p>	<p>Connect building occupants with the outdoors, reinforce circadian rhythms, and reduce the use of electrical lighting by introducing daylight and views into the space.</p> <p>High light-reflectant flooring can serve as a light shelf and drive natural daylight further into a space which can assist projects in achieving this LEED credit.</p>
<p><b>LEED Pilot Credit 84 - v4</b> MR credit category for v2009 projects</p> <p>HC NC R S</p>	<p>To reduce environmental impact through building product and material selection, promote transparency, and encourage market transformation in the field of materials and material ingredients.</p> <p>Armstrong Flooring is LEED v4 ready. See our LEED v4 Summary sheet to learn about credit compliance.</p>

**INDOOR ENVIRONMENTAL QUALITY**

CREDIT	FLOORING CONTRIBUTION
<p><b>Low Emitting Materials</b></p> <p>BD+C (3 pt) ID+C (3 pt)</p> 	<p>Reduce concentrations of chemical contaminants that can damage air quality, human health, productivity and the environment.</p> <p>Armstrong Flooring products including adhesives contribute toward achieving this credit. Armstrong Flooring products are tested and compliant with the California Department of Public Health Standard Test Method (CDPH v1.1) and most are third party certified by FloorScore® to comply with this standard.</p> <p>In addition, all of Armstrong Flooring adhesives comply with the SCAQMD Rule # 1168 and do not contain methylene chloride and perchloroethylene.</p> <p>Look for products with the FloorScore icon, on our product webpages.</p>
<p><b>Interior Lighting - Lighting Quality (Option 2)</b></p> <p>BD+C (1 pt) ID+C (1 pt) O+M (1 pt)</p>	<p>Choose four strategies from a list of lighting quality strategies including a strategy for at least 90% of the regularly occupied floor area, meet or exceed area-weighted average surface reflectance: 85% for ceilings, 60% for walls, and 25% for floors.</p> <p>Armstrong Flooring offers a variety of flooring products with surface light reflectance &gt;25% . Armstrong Flooring provides light reflectance values for all of our flooring products. Reference our <a href="#">Product Guide</a> for Armstrong Flooring light reflectivity (LR) values.</p>
<p><b>Daylight and Quality Views</b></p> <p>O+M (1 pt)</p>	<p>Connect building occupants with the outdoors, reinforce circadian rhythms, and reduce the use of electrical lighting by introducing daylight and views into the space.</p> <p>High light-reflectant flooring can serve as a light shelf and drive natural daylight further into a space which can assist projects in achieving this LEED credit.</p>

