

technique

THE ARMSTRONG INSTALLATION, MAINTENANCE AND TECHNICAL BULLETIN

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Leadership in Energy and Environmental Design, LEED®

As a founding sponsor of the United States Green Building Council, Armstrong recognizes the importance of sustainable design and the value associated with the LEED Green Building Rating System. Armstrong is committed to developing products that support the achievement of LEED credits. To fully understand how Armstrong flooring products can help Designers, Architects and Facility Owners attain LEED credits, it is important to understand the following sections contained in this Technique Bulletin:

- I. What is the LEED Green Building Rating System?
- II. Which LEED sections and credits apply specifically to Floor Covering?
- III. How does floor covering help achieve credits under the Material and Resources section?
- IV. How can Armstrong Flooring Products help achieve LEED credits?

I. What is the LEED Green Building Rating System?

The United States Green Building Council (USGBC) developed LEED as a set of guidelines to provide a national standard for green building design. The pilot version of these guidelines was introduced in 2000 and has continually been expanded and revised. The current version for LEED New Construction and Major Renovation is Version 2.1. Standards also exist that specifically target Commercial Interiors, Core and Shell, Existing Buildings, and Residential Buildings.

The LEED rating system is based on achieving a certain number of points, which are allocated for design choices defined within the standard. There are six sections to LEED that target specific design criteria – Site Selection, Efficient use of Water, Energy and Atmosphere, Materials and Resources, Indoor Environmental Quality and a section awarding credits for Innovative Design. Depending on the number of points achieved, the building can attain Platinum (52 – 69 points), Gold (39 – 51 points), Silver (33 – 38 points) or LEED™ certified (26 – 32 points) status. The intent of the LEED standard is to provide a design guideline and third-party certification tool for green buildings. Therefore, products cannot be LEED certified – only buildings can be certified. An architect or designer can make product choices that will help a building qualify for LEED points.

II. Which LEED sections and credits apply specifically to Floor Covering?

Section	Credit	Total Point Value	Description	Applicability to Flooring
Indoor Environmental Quality	1 through 8	15	Establishes indoor air quality performance measures. Includes points for IAQ monitoring, HVAC effectiveness, IAQ management plans, Low (VOC) Emitting Materials, thermal comfort, and day lighting. Credits 4.3 and 4.4 are specifically for carpet and composite wood products.	Floor products /installation products can help attain points under 4.1 and 4.4.
Materials & Resources	1 through 7	13	Purpose is to reduce waste generation, extend the use of existing building materials and conserve resources. Includes points for installing recycling systems, reusing building walls, floors and roofs, diverting construction waste from landfill, emphasizing the use of locally manufactured materials with recycled content, renewable raw materials, and certified wood.	The choice of floor products can help attain points under credits 1.3, 2.1, 2.2, 4.1, 4.2, 5.1, 5.2, 6 and 7.
Innovation & Design Process	1 and 2	5	Purpose is to provide the opportunity for projects to achieve points for innovative designs or systems that lead to exceptional building performance above the existing guidelines.	Floor products can help attain innovation credits.
Energy & Atmosphere	1 through 6	17	Purpose is to provide points for energy efficient design, incent use of CFC-free refrigerants, and the use of renewable and green energy.	Not applicable
Sustainable Sites	1 through 8	14	Purpose is to avoid development of inappropriate sites and reduce the environmental impact from site location. This section includes points for protecting greenfields, public transportation access, alternative transportation incentives, managing stormwater, reducing heat island effect and light pollution.	Not applicable
Water Efficiency	1 through 5	5	Purpose is to design the building minimizing the use of potable water and incenting overall water efficiency. Includes points for the elimination of potable water for landscape irrigation, reduction in wastewater generation and maximizing water efficiency by using dry fixtures or grey water for non-potable applications.	Not applicable

III. How does Floor Covering help achieve credits under the Materials and Resources section?

The floor covering selection can have the biggest impact on the materials and resources section. Most of the other sections address building system choices that individual products have limited ability to affect. The following credits within the Materials and Resources section can be directly impacted by the floor covering choice:

Section	Credit	Total Point Value	Description	Floor Covering Selection
MATERIALS AND RESOURCES	1.3	1	Credits 1.1 and 1.2 are prerequisites that require maintaining 100% of the existing building structure and shell. In addition, credit 1.3 allocates a point for the reuse of existing building materials such as interior floors.	Choosing long lasting, durable floors can help attain this credit.
	2.1	1	Reduce building waste by diverting 50% of demolition debris from landfills to be reused or recycled.	Only flooring manufacturers with a recycling or reuse program can help attain points under this credit.
	2.2	1	Reduce building waste by diverting 75% of demolition debris from landfills to be reused or recycled. (This is 25% in addition to that required under credit 2.1.)	Only flooring manufacturers with a recycling or reuse program can help attain points under this credit.
	4.1	1	Gives credit to those products that are manufactured using recycled materials. A minimum of 5% recycled content is necessary (calculation is based on both post-consumer and post-industrial recycled content.)	Floor coverings with recycled content can help attain points under this credit.
	4.2	1	Gives credit to those products are manufactured using recycled materials. A minimum of 10% recycled content is necessary (calculation is based on both post-consumer and post-industrial recycled content).	Floor coverings with recycled content can help attain points under this credit.
	5.1	1	Gives preference to building materials that are extracted and manufactured within 500 miles of the job. Attaining this credit will depend on the job location and manufacturing location of the product selected.	This will give preference to manufacturers of floor coverings within 500 miles of the job site.
	5.2	1	In addition to 5.1, use at least 50% of building materials that are extracted, harvested or recovered within 500 miles of the jobsite. Attaining this credit will depend on the job location and the extraction, harvest or recovery location of the building materials.	This will give preference to manufacturers of floor coverings within 500 miles of the job site who also extract, harvest or recover the raw materials that they use within a 500 mile region of the job site.
	6	1	Gives credit for using products that use rapidly renewable resources (less than a 10-year cycle).	Floor coverings such as linoleum will be given preference under this credit.
	7	1	Incentivize the use of wood products extracted from certified forests.	Wood floor coverings that use wood products certified under the Forest Stewardship Council's criteria would help attain points under this credit.

IV. How can Armstrong Flooring Products help achieve LEED Credits?

Credit	Armstrong Commercial Floor Product				
	VCT	LVT	Sheet Vinyl	Linoleum	Hardwood
MATERIALS & RESOURCES					
1.3 Building Reuse					
4.1 & 4.1 Recycled Content					
5.1 & 5.2 Regional Materials					
6: Rapidly Renewable Materials					
INDOOR ENVIRONMENTAL QUALITY					
4.1 Low Emitting Adhesives					

Armstrong flooring products can help a building project qualify for LEED points in a number of areas. In order to use the appropriate products for your specific needs and project objectives, please call Armstrong at 1-877-ARMSTRONG. By working with Armstrong and a LEED accredited professional, you can insure that you make the best product decisions and help you achieve the design and function you are looking for.