



GREEN BUILDING AND LEED® GUIDE



Aluminum Association Quick Facts

- Aluminum structures can weigh anywhere from 35% to as much as 80% less than steel, yet provide equivalent strength.
- Aluminum has a higher strength-to-weight ratio than most other metals or materials.

The United States Green Building Council's (USGBC) Leadership in Energy and Environmental Design (LEED®) program sets a definitive standard for what constitutes a 'Green Building'. The program is based on nationally accepted energy and environmental standards and principles that strike a balance between known effective practices and emerging technologies. The U.S. Green Building Council is the governing body for LEED, and is the nation's foremost coalition of leaders from across the building industry, working to promote buildings that are socially and environmentally responsible, profitable, and healthy places to live and work.



U.S. Green Building Council Quick Facts

In the United States, buildings use one-third of our total energy, two-thirds of our electricity, one-eighth of our water, and transform land that provides valuable ecological resources.



United States Aluminum is proud of its effort to use as much recycled aluminum in our products as possible, while recycling 100% of the aluminum scrap.

The United States Aluminum product line can help new commercial construction and major renovation projects (LEED-NC), existing building operations (LEED-EB), commercial interiors projects (LEED-CI) and core and shell projects (LEED-CS) attain points towards one of the four levels of LEED certification: basic,

silver, gold, and platinum. The level achieved is based on the total number out of 100 base points, including six possible Innovation in Design and four Regional Priority points.

The Canadian Green Building Council's (CaGBC) version of the LEED program, version 2009, is a close derivative of USGBC's version 2009.



The charts shown below display the prerequisite and available points in each category from the LEED®-NC Rating System version 2009, and the Canadian CaGBC LEED®-NC version 2009. To find an approximate LEED Rating for a project add the points the project qualifies for from each category, then add the subtotals from each section to reach the cumulative total points. Compare the total points to the Project Totals chart to find which LEED Rating the project will qualify for.

Credits that United States Aluminum products help qualify for are set **bold-faced** in the listings shown below. An analysis of the credits that our products will help in attaining, and how they pertain to each credit, is available on the back page of this brochure. This guideline is intended for informational purposes only, so consult an up to date version of the LEED program for specific details.

SUSTAINABLE SITES		26 POSSIBLE POINTS
Prereq 1	Construction Activity Pollution Prevention	Required
Credit 1	Site Selection	1
Credit 2	Development Density and Community Connectivity	5
Credit 3	Brownfield Redevelopment	1
Credit 4.1	Alternative Transportation, Public Transportation Access	6
Credit 4.2	Alternative Transportation, Bicycle Storage and Changing Rooms	1
Credit 4.3	Alternative Transportation, Low-Emitting and Fuel-Efficient Vehicles	3
Credit 4.4	Alternative Transportation, Parking Capacity	2
Credit 5.1	Site Development, Protect or Restore Habitat	1
Credit 5.2	Site Development, Maximize Open Space	1
Credit 6.1	Stormwater Design, Quantity Control	1
Credit 6.2	Stormwater Design, Quality Control	1
Credit 7.1	Heat Island Effect, Non-Roof	1
Credit 7.2	Heat Island Effect, Roof	1
Credit 8	Light Pollution Reduction	1

WATER EFFICIENCY		10 POSSIBLE POINTS
Prereq 1	Water Use Reduction	Required
Credit 1	Water Efficient Landscaping	2 to 4
Credit 2	Innovative Wastewater Technologies	2
Credit 3	Water Use Reduction	2 to 4

ENERGY AND ATMOSPHERE		35 POSSIBLE POINTS
Prereq 1	Fundamental Commissioning of Building Energy Systems	Required
Prereq 2	Minimum Energy Performance	Required
Prereq 3	Fundamental Refrigerant Management	Required
Credit 1	Optimize Energy Performance	1 to 19
Credit 2	On-Site Renewable Energy	1 to 7
Credit 3	Enhanced Commissioning	2
Credit 4	Enhanced Refrigerant Management	2
Credit 5	Measurement and Verification	3
Credit 6	Green Power	2

MATERIALS AND RESOURCES

14 POSSIBLE POINTS

Prereq 1	Storage and Collection of Recyclables	Required	<input type="checkbox"/>
Credit 1.1	Building Reuse, Maintain Existing Walls, Floors and Roof	1 to 3	<input type="checkbox"/>
Credit 1.2	Building Reuse, Maintain Existing Interior Non-Structural Elements	1	<input type="checkbox"/>
Credit 2	Construction Waste Management	1 to 2	<input type="checkbox"/>
Credit 3	Materials Reuse	1 to 2	<input type="checkbox"/>
Credit 4	Recycled Content	1 to 2	<input type="checkbox"/>
Credit 5	Regional Materials	1 to 2	<input type="checkbox"/>
Credit 6	Rapidly Renewable Materials	1	<input type="checkbox"/>
Credit 7	Certified Wood	1	<input type="checkbox"/>

INDOOR ENVIRONMENTAL QUALITY

15 POSSIBLE POINTS

Prereq 1	Minimum Indoor Air Quality (IAQ) Performance	Required	<input type="checkbox"/>
Prereq 2	Environmental Tobacco Smoke (ETS) Control	Required	<input type="checkbox"/>
Credit 1	Outdoor Air Delivery Monitoring	1	<input type="checkbox"/>
Credit 2	Increased Ventilation	1	<input type="checkbox"/>
Credit 3.1	Construction IAQ Management Plan, During Construction	1	<input type="checkbox"/>
Credit 3.2	Construction IAQ Management Plan, Before Occupancy	1	<input type="checkbox"/>
Credit 4.1	Low-Emitting Materials, Adhesives and Sealants	1	<input type="checkbox"/>
Credit 4.2	Low-Emitting Materials, Paints and Coatings	1	<input type="checkbox"/>
Credit 4.3	Low-Emitting Materials, Flooring Systems	1	<input type="checkbox"/>
Credit 4.4	Low-Emitting Materials, Composite Wood and Agrifiber Products	1	<input type="checkbox"/>
Credit 5	Indoor Chemical and Pollutant Source Control	1	<input type="checkbox"/>
Credit 6.1	Controllability of Systems, Lighting	1	<input type="checkbox"/>
Credit 6.2	Controllability of Systems, Thermal Comfort	1	<input type="checkbox"/>
Credit 7.1	Thermal Comfort, Design	1	<input type="checkbox"/>
Credit 7.2	Thermal Comfort, Verification	1	<input type="checkbox"/>
Credit 8.1	Daylight and Views, Daylight	1	<input type="checkbox"/>
Credit 8.2	Daylight and Views, Views	1	<input type="checkbox"/>

INNOVATION AND DESIGN PROCESS

6 POSSIBLE POINTS

Credit 1	Innovation In Design	1 to 5	<input type="checkbox"/>
Credit 2	LEED® Accredited Professional	1	<input type="checkbox"/>

REGIONAL PRIORITY

4 POSSIBLE POINTS

Credit 1	Regional Priority	1 to 4	<input type="checkbox"/>
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PROJECT TOTALS

100 POSSIBLE POINTS

Certified	40-49 points
Silver	50-59 points
Gold	60-79 points
Platinum	80 points and above

POSSIBLE CREDITS THAT UNITED STATES ALUMINUM PRODUCTS HELP QUALIFY FOR LEED® NEW CONSTRUCTION AND MAJOR RENOVATIONS RATING SYSTEM

EA Credit 1 – Optimize Energy Performance

United States Aluminum offers many thermally insulated systems that provide excellent energy performance.

MR Credit 3 – Materials Reuse

Doors, frames, and a variety of the products we manufacture can be salvaged for reuse in future projects.

MR Credit 4 – Recycled Content

United States Aluminum can provide extrusions manufactured using billet composed of more than 20% post-industrial recycled aluminum.

MR Credit 5 – Regional Materials

United States Aluminum has Manufacturing Facilities across North America, making much of the continent within a 500 mile radius of regional manufacturing.

IEQ Credit 2 – Increased Ventilation

Our products can be used as part of a comprehensive plan to provide additional outdoor air ventilation to improve indoor air quality for improved occupant comfort, well-being, and productivity.

IEQ Credit 4.2 – Low Emitting Materials, Paints and Coatings

United States Aluminum uses coatings that meet or exceed AAMA 2005.

IEQ Credit 6.1 – Controllability of Systems, Lighting

IEQ Credit 6.2 – Controllability of Systems, Thermal Comfort

United States Aluminum provides systems that offer a greater level of thermal, ventilation, and lighting control with features like operable windows that meet the requirements of ASHRAE 62.1-2004 paragraph 5.1 Natural Ventilation.

IEQ Credit 7.1 – Thermal Comfort, Design

United States Aluminum produces building envelope systems that meet the requirements of ASHRAE Standard 55-2004, Thermal Comfort Conditions for Human Occupancy.

IEQ Credit 8.1 – Daylight and Views, Daylight

IEQ Credit 8.2 – Daylight and Views, Views

United States Aluminum manufactures systems that can be configured to allow an amount of Daylight and View that exceeds LEED requirements.

MANUFACTURING FACILITIES

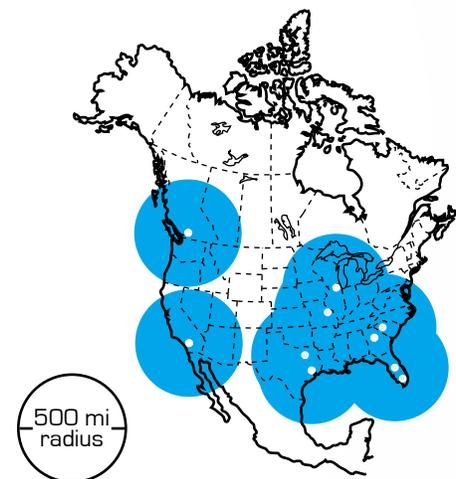


Illustration shows United States Aluminum Manufacturing Facilities with a five hundred mile regional manufacturing radius.

LEED® information taken from LEED Green Building Reference Guide 2009 for New Construction and Major Renovations Rating System and LEED Canada-NC Version 2009
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Aluminum Association information taken from Aluminum Association web site