

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.

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 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.

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.



LEED®-NC Rating System Prerequisite and Available Points

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 sub-totals 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	

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LEED®-NC Rating System Prerequisite and Available Points

MATERIALS AND RESOURCES

14 POSSIBLE POINTS

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

INDOOR ENVIRONMENTAL QUALITY

10 POSSIBLE POINTS

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

INNOVATION AND DESIGN PROCESS

35 POSSIBLE POINTS

Credit 1	Innovation In Design	1 to 5
Credit 2	LEED® Accredited Professional	1

REGIONAL PRIORITY

35 POSSIBLE POINTS

Credit 1	Regional Priority	1 to 4
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PROJECT TOTALS

35 POSSIBLE POINTS

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

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U.S. ALUMINUM

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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.

LEED® information taken from LEED Green Building Reference Guide 2009 for New Construction and Major Renovations Rating System and LEED Canada-NC Version 2009
LEED is a registered trademark of the U.S. Green Building Council
Aluminum Association information taken from Aluminum Association web site

MANUFACTURING FACILITIES

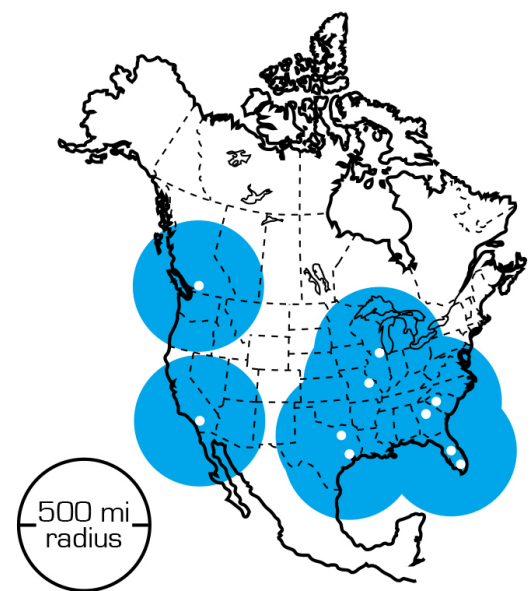


Illustration shows United States Aluminum Manufacturing Facilities with a five hundred mile regional manufacturing radius.