

LEED CERTIFICATION

What is a LEED Certification?

LEED, or Leadership in Energy and Environmental Design, is an internationally-recognized green building certification system. Developed by the United States Green Building Council (USGBC), LEED provides building owners and operators with a framework for identifying and implementing practical and measurable green building design, construction, operations, and maintenance solutions. LEED promotes sustainable building and development practices through a rating system based on points, that recognizes projects that implement strategies for better environmental and health performances. USGBC certifies buildings, NOT the materials used to construct the buildings. Therefore, a vast majority of green building materials will contribute to LEED points. The following description of LEED credits, with the use of AAC, represents qualified LEED points, which can be considered for certification.

Green Building

LEED certification means healthier, more productive places, reduced stress on the environment by encouraging energy and resource-efficient buildings, and savings from increased building value, higher lease rates and decreased utility costs.



Energy and Atmosphere

EA Credit1: Optimize Energy Performance

A possible of 19 points can be awarded to a building envelope constructed with AAC, along with a combination of energy efficient windows, appliances, and lighting. The high R value of AAC and its inherent thermal mass, creates an excellent energy efficient living environment. Energy performance credits are awarded when energy cost savings are compared to a baseline building. 12-48% energy cost savings for new buildings and 8-44% for existing buildings, will award 1 to 19 points towards LEED certification.

Materials and Resources

MR Credit 2.1 & 2.2: Construction Waste Management

Points are awarded for less construction waste going to the local landfill. One point earned for design, if 50% of material is recycled, and two points if 75% of construction waste is recycled. AAC has the ability to have 100% usage. During the installation process, every cut block can be used anywhere in the construction building. Any waste that does occur can be crushed and used as a non-structural back fill and recycled in wall components.

MR Credit 4: Recycle Content

One to two points are earned for materials composed of 10% to 20% recycled content, based on cost. AAC has the ability to earn points for this credit.

Recycled Content in AAC:

1. Cement- Cement contains 10-11% pre-consumer recycled content, which makes up 14-18% of concrete recipes
2. Slag- Slag contains 100% pre-consumer recycled material. 2-3% of concrete mix
3. Steel- Steel wire used to reinforce panels and lintels is 100% post-consumer recycled material

Indoor Environmental Quality

IEQ Credit 4: Low-Emitting Energy

Points awarded to materials containing little to no volatile organic compounds (VOC's). AAC fits perfectly into this category as it contains zero VOC's and is completely non-polluting.

IEQ Credit 7: Thermal Comfort

Thermal efficiency, breath-ability, and equilibrium moisture content are all attributes of an AAC building envelope. The composition of raw and natural materials, combined with non-pollutants,

makes AAC buildings a comfortable and healthy living environment. Points are awarded to design of efficient HVAC systems, resulting in thermal comfort.

Sustainable Sites

SS Credit 4.2: Alternative Transportation: Bicycle Storage and Changing Rooms

Minimizing CO2 emissions can award points towards certification. To promote alternative forms of transportation, construction of bicycle racks, storage sheds, and changing rooms, using AAC, can award one point.

Innovation and Design

Points can be earned for new innovative credits that are not listed within the standard LEED rating system,

Innovation and Design credit possibilities for AAC: Aerated Autoclaved Concrete is completely pest, termite, and mold resistant. Due to the resistance, AAC contributes to longevity, less maintenance, and healthy indoor air quality, for the built environment.

