



CLADIATOR®
Built to Conquer New Challenges



LEED



**Leadership in Energy
and Environmental Design.**

Updated

v4

July 2016



CLADIATOR for LEED v4

Energy efficiency and sustainability have become a major consideration in building design and construction. The CLADIATOR cladding support system is an environmentally responsible product that provides high-performance thermal isolation required for effective continuous insulation design. CLADIATOR can contribute to several prerequisites and credits under USGBC's LEED program (Leadership in Energy and Environmental Design), one of the most widely-used and respected green certification programs. Basic LEED certification is becoming a requirement for some types of construction in certain jurisdictions. The more advanced LEED certifications (Silver, Gold, Platinum) are an attractive factor, or even mandate, for many commercial and institutional owners and tenants.

(LEED v4 has different requirements for residential vs commercial construction. The following pre-requisites and credits apply to LEED v4 Building Design and Construction)

1. Energy and Atmosphere Prerequisite

Minimum Energy Performance.

CLADIATOR 100, 200 and 300 systems

- New Construction
- Core and Shell
- Schools
- Retail
- Data Centers
- Warehouses and Distribution Centers
- Hospitality
- Healthcare

The intent of this prerequisite is “to reduce the environmental and economic harms of excessive energy use by achieving a minimum level of energy efficiency for the building and its systems.” It sets the base level of energy efficiency, taking into account the energy performance of the building as a complete system. It uses the mandatory provisions of ANSI/ASHRAE/IESNA Standard 90.1–2010, with errata, as its model, and requires an improvement of 5% over that baseline building. Standard 90.1–2010

mandates continuous insulation, and requires that materials penetrating the insulation layer (except fasteners) provide a thermal break. The CLADIATOR 300 cladding support system has a thermally isolating polyamide clip that provides high-performing thermally broken support across the continuous insulation. It meets and exceeds Standard 90.1–2010 since no conductive element, not even metal fasteners, penetrates the insulation layer. CLADIATOR 100 and 200 can be installed with thermal stop and thermally isolating screws, as well. Thus, all three systems can contribute to this prerequisite.

2. ENERGY AND ATMOSPHERE CREDIT

Optimize Energy Performance

CL- 300 system

Credit Name	Number of Points
New Construction	1-18
Core and Shell	1-18
Schools	1-16
Retail	1-18
Data Centers	1-18
Warehouses and Distribution Centers	1-18
Hospitality	1-18
Healthcare	1-20

The intent of this credit is “achieve increasing levels of energy performance beyond the prerequisite standard” established in ENERGY AND ATMOSPHERE PREREQUISITE - Minimum Energy Performance (see above). The credit awards points based on the degree to which the project exceeds performance of the baseline building: one point for 6%, two points for 8%, up to 18 points for 50%. The CL-300 cladding support system not only provides the required thermal break across the insulation layer, but actually exceeds ANSI/ASHRAE/IESNA Standard 90.1–2010 by eliminating any conductive fastener penetration of the insulation. It potentially outperforms other thermally broken support systems that require metal fasteners through the insulation, and may contribute more effectively to this credit.

3. Materials and Resources Credit

Building Product Disclosure and Optimization

Sourcing of Raw Materials Option 2 Leadership Extraction Practices (1 point)

CLADIATOR 100, 200 and 300 systems

Credit Name	Number of Points
New Construction	1-2
Core and Shell	1-2
Schools	1-2
Retail	1-2
Data Centers	1-2
Warehouses and Distribution Centers	1-2
Hospitality	1-2
Healthcare	1-2

This credit is intended to “encourage the use of products and materials for which life cycle information is available and that have environmentally, economically, and socially preferable life cycle impacts.” Option 2 encourages the use of a variety of products that meet at least one of several responsible extraction

criteria, so that those products amount to 25%, by cost, of the total value of permanently installed building products in the project. CLADIATOR systems are made largely of aluminum, and can contribute to this credit. The aluminum elements have 30.5% post-consumer recycled content, and may be valued at 85% of the cost of those elements in calculating the credit.

4. Indoor Environmental Quality Credit

Low-Emitting Materials

CLADIATOR 100 and 200 systems, interior installations

Credit Name	Number of Points
New Construction	1-3
Core and Shell	1-3
Schools	1-3
Retail	1-3
Data Centers	1-3
Warehouses and Distribution Centers	1-3
Hospitality	1-3
Healthcare	1-3

This credit seeks to “reduce concentrations of chemical contaminants that can damage air quality, human health, productivity, and the environment” by encouraging the use of products that have no or low emissions of volatile organic compounds (VOCs). It specifically cites anodized metals as “inherently non-emitting materials.” CLADIATOR 100 and 200 systems can be made entirely of anodized aluminum, and thus contribute to the 100% compliance requirement for walls under this credit.

5. Indoor Environmental Quality Credit

Thermal Comfort

CLADIATOR 100, 200 and 300 systems, exterior installations

Credit Name	Number of Points
New Construction	1
Schools	1
Retail	1
Data Center	1
Warehouses and Distribution Centers	1
Hospitality	1
Healthcare	1

The intent of this credit is “to promote occupants’ productivity, comfort, and well-being by providing quality thermal comfort.” It requires designing HVAC systems and the building envelope either to meet ASHRAE Standard 55–2010, Thermal Comfort Conditions for Human Occupancy, or to meet both ISO 7730:2005 Ergonomics of the Thermal Environment and CEN Standard EN 15251:2007 Indoor Environmental Input Parameters for Design and Assessment of Energy Performance of Buildings. CLADIATOR systems provide thermally isolated support system for rainscreen cladding systems, and as part of a high-performance building envelope, may contribute to this credit.