



Leadership in Energy and Environmental Design (LEED) – New Construction (NC)

When Lite-Form Technologies ICF products are incorporated into the exterior envelope of a building, the energy efficiency and material properties of Lite-Form can help contribute in 4 of the six LEED-NC categories. Summarized below are the categories and how Lite-Form Technologies ICF's can contribute towards a building certification.

Sustainable Sites (SS): This LEED Category covers Site Development issues.

SS Prerequisite 1: Control erosion and sedimentation.

Credits are obtained for:

- Proper site selection
- Use of an urban site
- A Brownfield site
- Providing alternative transportation to reduce dependence on single passenger vehicles.
- Reducing amount of site disturbed with structure and roads
- Effective storm water management or treatment
- Impact of parking areas and roof areas to heat island effect
- Light pollution reduction

Lite-Form Technologies makes no contribution toward LEED credits within this category

Water Efficiency (WE): This LEED category covers water conservation and pollution issues on site.

There are no WE prerequisites for LEED Certification in this category.

Credits are obtained for:

- Reducing or eliminating potable water used for landscaping
- Reducing potable water used for waste conveyance
- Overall reduction in water use

Lite-Form Technologies makes no contribution toward LEED credits within this category.



Energy and Atmosphere (EA): This LEED category covers measures to improve the energy efficiency and reductions in use of ozone depleting refrigerants and green house gases.

EA Prerequisite 1: Required compliance with minimum performance standards of national or local energy codes

EA Prerequisite 2: Provide fundamental commissioning of the systems installed in the building to verify proper installation and performance

EA Prerequisite 3: Elimination of CFC based refrigerants

Two (2) points are mandatory from this category for all LEED NC projects.

Credits are obtained for performance improvements beyond the minimum national or local energy code requirements (up to 10 points).

EA Credit 1: Use of renewable energy sources providing additional commissioning

EA Credit 2: No HCFC refrigerants or fire suppression systems

EA Credit 3: Continuous monitoring of and optimization of systems performance

EA Credit 4: Use of Green Power Sources

EA Credit 5: Measurement & Verification

Building the exterior walls with Lite-Form ICF's contributes to this requirement and credits by providing superior air tightness, insulating value and thermal massing. Use of Lite-Form Technologies will result in a better insulated, energy efficient exterior wall system. The continuous solid insulated concrete wall created by Lite-Form will reduce air infiltration and provide thermal mass benefits.

Combined with other components like energy efficient glazing and window units, well insulated roof assemblies, and design strategies like effective solar orientation, Lite-Form can contribute to a project qualifying for minimum energy performance under EA Prerequisite 2, and for additional credits for energy performance beyond the minimum national and local energy code requirements, under the Optimized Energy Performance category.



Materials and Resources (MR): This LEED category covers recycling building materials, and reducing construction waste.

MR prerequisite 1: Required Space must be designated dedicated for separation, collection and Storage of recycled materials.

Credits are obtained for:

- MR Credit 1: Reuse of existing buildings
- MR Credit 2: Reducing construction waster
- MR Credit 3: Reuse of existing building components
- MR Credit 4: Using products with recycled content
- MR Credit 5: Using local and regional building materials
- MR Credit 6: Using materials that are rapidly renewable, harvested from plants that Mature in 10 years or less
- MR Credit 7: Using certified wood products, to encourage responsible forest Management.

Use of Lite-Form ICF products will reduce construction waste. Any waste that is generated is 100% recyclable. Lite-Form ties are manufactured from certified 100% first generation recycled polypropylene, 40% post industrial; one half of the calculated amount is included in the total value of recycled content for a project. Use of Lite-Form will contribute to the overall value of recycled content for a project.

Recycled Content of Lite-Form®

Lite-Deck® Top Hats are manufactured with 100% Recycled EPS.
80% Post Industrial / 20% Post Consumer

Lite-Form® Sheet Foam is manufactured with 100% Recycled EPS.
80% Post Industrial / 20% Post Consumer



Indoor Environmental Quality (EQ): This LEED category covers indoor air quality requirements for projects

EQ Prerequisite 1: Minimum indoor air quality must meet ASHRAE standards.

EQ Prerequisite 2: No exposure from second hand smoke is permitted for non-Smoking building users.

Credits are obtained for:

- EQ Credit 1: Monitoring Carbon Dioxide levels with adjustable ventilation system.
- EQ Credit 2: Optimize air change effectiveness of HVAC system and building envelope
- EQ Credit 3: Optimize air quality during construction
- EQ Credit 4: Flush out and filter indoor air prior to occupancy of building
- EQ Credit 5: Use low VOC products in adhesives, sealants, paints and carpet
- EQ Credit 6: Use Certified wood products
- EQ Credit 7: Control dust and chemical exposure within building
- EQ Credit 8: Provide controllable thermal, ventilation and lighting systems
- EQ Credit 9: Comply with ASHRAE standards for thermal and humidity comfort
- EQ Credit 10: Permanently monitor thermal and humidity comfort levels with Adjustable systems

Use of Lite-Form Technologies ICF products will reduce air infiltration. The thermal mass of the concrete wall insulates against surface temperature swings of walls.

Lite-Form will not contribute to accidental humidification and condensation within the building.

Lite-Form Technologies, incorporated into a project as part of an overall LEED conforming envelope will contribute to reducing air infiltration, reducing temperature swings and minimizing accidental humidification and condensation



Innovation & Design Process (ID): This LEED category covers credits available for innovation and exceptional performance above and beyond the requirements of the program.

There are no ID Prerequisites for LEED Certification in this category:

Credits are obtained for:

- ID Credit 1: Substantially exceed LEED requirements
- ID Credit 2: Apply strategies or measures not covered in LEED
- ID Credit 3: Use LEED Accredited Professional as part of Project team.

Past LEED Certified projects incorporating Lite-Form Technologies have been able to qualify for credits under this category for the following:

- No off-gassing: Lite-Form product is inert, does not contribute to any degradation of the interior environment.
- Long Life Cycle: Concrete structures are very durable and will last far longer than other types of conventional construction.
- Mold Growth control: The entire Lite-Form assembly from formwork foam, plastic ties and the concrete are all inorganic and will not contribute to promotion of growth of mold.
- Use of High Percentage of Cement Substitute: Moving beyond the usual modest percentage of fly ash, slag cement, or silica fume.

The durability of the concrete structure created through the use of Lite-Form Technologies and the inert and inorganic features of the forms help the product contribute to LEED credits under this category.
