

Learn how THERMOMASS™ Can LEED™ to Green Building Success!

The THERMOMASS™ Building Insulation System can make a significant contribution toward construction of a Green Building. Highlighted below are the LEED™ Checklist items in which Composite Technologies Corporation (CTC) can help you obtain points toward LEED™ Accreditation.

Environmental

Green Building

Energy and Atmosphere

- Prereq 1 **Fundamental Building Systems Commissioning**
To ensure success, we provide complete THERMOMASS system installation drawings, technical assistance in mechanical design, and guidance in panel detailing.
- Prereq 2 **Minimum Energy Performance**
We provide a concrete wall insulation system that meets or exceeds ASHRAE 90.1 or local building code requirements.
- Credit 1 **Optimize Energy Performance**
Compared to a baseline (lightweight) compliant building, we can provide analyses that demonstrate a reduction in thermal energy loads and peak energy use, in addition to increased thermal efficiency.
- Credit 3 **Additional Commissioning**
THERMOMASS can provide documentation and detailed drawings to ensure correct installation and use of the wall systems, thereby eliminating thermal bridging through the insulation layer.
- Credit 5 **Measurement and Verification**
THERMOMASS systems use Dow STYROFOAM™ brand insulation, which maintains 98% of its R-value. Using computer simulations, CTC can provide information regarding future wall performance, and, if requested, we can use a thermographic camera to verify the elimination of thermal bridges.

Materials and Resources

- Credits 1.1 & 1.2 **Building Reuse**
The materials used in THERMOMASS are designed to last many years, creating a building shell that is durable in many service applications. During a reconstruction or expansion project, there is no reason to replace a THERMOMASS wall because of old age. The wall panels can simply be relocated.
- Credits 4.1 & 4.2 **Recycled Content**
Concrete can comprise recycled materials such as fly ash and reinforcing steel.
- Credits 5.1 & 5.2 **Local and Regional Materials**
Concrete construction generally involves local materials and suppliers.

Indoor Environmental Quality

- Credit 3.1 **Construction Interior Air Quality Management Plan**
THERMOMASS insulated walls produce no dust or airborne contaminants during construction or service. During service, water vapor transmission is minimized and liquid water is not absorbed by the insulation.
- Credit 5 **Indoor Chemical and Pollutant Source Control**
THERMOMASS insulated panels mitigate the transmission of moisture through the building envelope, eliminating condensation on the wall surfaces. A THERMOMASS insulated panel also contains no consumable materials that might foster mold propagation.
- Credit 7.1 **Thermal Comfort**
THERMOMASS walls eliminate hot and cold spots on exterior walls and maintain the interior surface of the wall at or near the indoor air temperature, thereby contributing to occupant comfort.

Innovation and Design Process

- Credits 1.1 - 1.4 **Innovation in Design**
THERMOMASS is designed to perform above all current standards. Using state-of-the-art connectors, a THERMOMASS wall does not suffer from thermal bridging, and provides a benchmark for all competitors. Our system's ability to reduce and delay peak energy loads place THERMOMASS at the forefront of all concrete insulation systems.

Sustainable Sites

- Credit 5.1 **Reduced Site Disturbance**
The use of THERMOMASS requires little or no additional on-site space. Tilt-Up, Precast, Modular Precast and Poured-in-Place THERMOMASS applications have all been successfully completed on even the most restrictive construction footprints.