

BULLETIN

SIPLAST ROOF INSULATION SYSTEMS

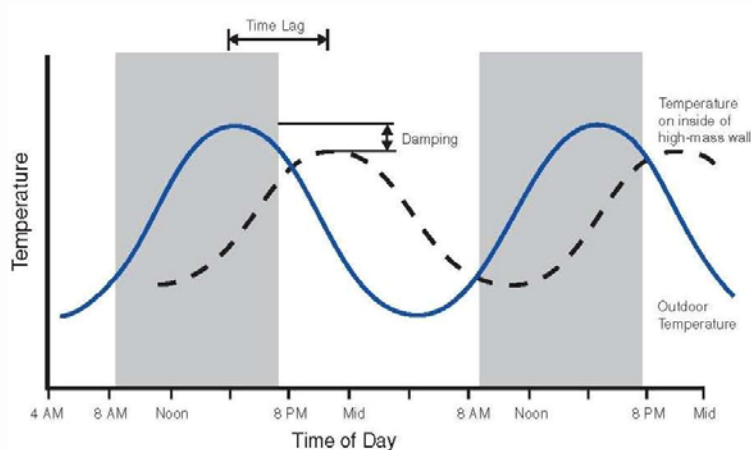
Siplast Lightweight Insulating Concrete Roof Insulation Systems

Sustainable Building Envelope Design – ASHRAE Green Tip # 6

Bulletin 7 – SRIS-0907

The American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) has published the ASHRAE GreenGuide: The Design, Construction, and Operation of Sustainable Buildings (2006). The GreenGuide focuses on high performance building systems and the interaction between a building's interior environments and exterior environments. Sustainable suggestions are summarized as Green Tips, which present specific technologies that offer high-performance design concepts from an integrated building systems perspective.

ASHRAE Green Tip #6 addresses the thermal mass required for a building to achieve load and/or energy savings. Steady state energy transfer through building envelopes is usually addressed with increased R-values; however, thermal mass of the building envelope components can affect both HVAC loads and longer-term energy use. The ASHRAE Green Guide states, "If thermal mass is significant in the building being planned, ...the "flywheel" effects of thermal mass on both loads and longer-term energy use can be used." Green Tip #6 specifically addresses nighttime ventilation and the benefits of the associated thermal mass lag in achieving load and energy savings.



Source: US DOE Energy Efficiency and Renewable Energy

Siplast Sustainable Building Envelope Design – Bulletin #3 discusses the thermal lag and temperature damping effects of Siplast Lightweight Insulating Concrete on roof membrane performance. These same characteristics can also aid in the reduction of HVAC loading requirements and consequently add energy savings, which supports the philosophy of ASHRAE Green Tip #6.



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