# SIPLOCK & HERS Ratings

According to, the 2006 IECC, the design effectiveness of all high-energy efficient construction directly affects the HERS rating.

- **Air leaks in a building envelope**

Oak Ridge National Labs has stated that **40%** of heat loss or gain is due to air leakage.

**SIPLOCK** *insulated panels' flash one another with a factory-milled tongue and groove joint. Panel walls and roofs are designed to be airtight.*

- **Air leaks from HVAC distribution ducts**

**SIPLOCK** *closed envelope design places HVAC ducts in conditioned spaces, considerably reducing the effects of air duct leakage.*
*SIPLOCK permits the use of Ductless HVAC, eliminating the effects of air leakage.*

- **Effectiveness of insulation in walls and ceilings**

**SIPLOCK** *wall and roof panels are constructed of EPS.*
*Panels are rated at R46 (roof) & R38 (wall).*
*IR energy reflective 26-gauge Galvalume steel clad SIP.*
*Siplock design "breaks" conductive thermal bridging.*
*EPS is water and moisture resistant.*

*Oak Ridge National Labs has stated that the individual R-value of each insulation and construction component they evaluated had very little to do with the R-value of an entire wall or roof assembly. In fact other studies have indicated that **30%** of a buildings Heat loss or Heat gain is from conductive thermal bridging. SipLock wall and roof panels eliminate the effects of thermal bridging.*

- **Floors over garages and crawl areas**

**SIPLOCK** *insulated panels are set down to the grade slab or footing.*
*Insulated space i.e.; garages or crawl areas under conditioned rooms is now considered "semi-conditioned space".* Note: *In a SipLock designed building, the semi-conditioned space generally has a 5-8 degree temperature differential from the "conditioned" space.*

- **Air leaks in Attics and crawl spaces**

**SIPLOCK** *panels flash one another, creating an airtight & weatherized seal. SIPLOCK closed envelope design eliminates the need for "ridge", "soffit" and "crawl" vents.*
***Improved HERS rating: No vents. No Air-Leaks. No Heat Gain. No Heat Loss.***

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