# SIPLOCK *Forever* ™
## *Net-Zero, Green & LEED Design*

Dried-In Siplock Shell.
FAQ.

1. What is a dried-in building shell?

A dried-in shell consists of Siplock panels, structural steel columns, steel ridge assembly and steel I-Beams ready for the floor assembly.
Siplock design, lead and shipment times are generally 4-8 weeks.
Siplock is designed to meet local and state code requirements.
A Siplock construction crew erects a Siplock building.

***Example***: A three story 3000 square foot building shell, with a gabled roof, two levels of floor beams, set on slab grade can be dried-in in about 5 days.

2. What is the cost of a dried-in shell?

A Siplock building consists of 9ò R38 wall panels and 11ò R46 Roof panels. Each panels ñRò value is continuous throughout the entire length of the panel. (Up to 52 Ft in length.).
No thermal bridging in a panel.
Save on overall construction costs and offer more! How!

a. No additional insulation and contractor costs for insulation. R38 & R46 Insulation is part of the SIP building panel.
b. No headers or framing required for windows and doors. Eliminates added framing costs and most importantly, no thermal bridging from window and door headers and framing.
c. No house wrap necessary, 26 gauge steel skin panels (both sides) flash each other to insure a tight weather and moisture resistant seal.
d. No roof and soffit vents required. No additional materials and carpenter costs and more importantly, no air leakage from vents. No vents insure that hurricane force winds will not diminish the buildings structural integrity.
e. No waste with pre-sized SIP panels. Minimal trash hauling, lower security and safety issues with trade workers.
f. Reduced insurance costs. Shell buildings are put up in less than a week.
Interior and exterior trades can start work side by side in less than a week. No tradeôs gridlock. No scheduling issues. Work commencement by the building trades is reduced to a common start date by all.
g. Open floor plan for no obstruction vaulted ceilings and views. No interior bearing wall or support columns in great rooms or any other rooms. Reduced construction costs for the popular open floor designs.
h. These savings translate to a sizeable reduction in the cost of construction materials, labor, hauling costs and insurance.
i. Steel construction, energy zero, green, clean air and noise reduction design are features customers want.
j. Siplock costs less than other energy zero construction methods.

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3. <u>What about plumbing and electricity.</u>

   a. Plumbing waste and domestic water is stubbed out, either in a crawl space, slab or basement.
   b. Electrical outlets and wiring on a wall SIP is pulled between 20-gauge 2ò metal Z firing (16-24ò centers), attached to the SIP, before the wallboard (GWB) is installed.

   Or

   c. Electric wiring can be placed in a chase behind the base molding. Simply attach the wallboard directly to the SIP steel. No firing necessary.
   d. It is not necessary to cut a wiring chase in a SIP using the above methods.

4. <u>What about roofing and siding.</u>

   a. No building wrap is necessary over the 26-gauge Galvalume Steel skin.
   b. Steel standing seam metal roof may be placed directly on the SipLock panels.
   c. The choice of siding or roofing material is client driven. No restrictions for attachment to the SipLock panels.

5. <u>What about energy saving mechanicals.</u>

   a. Energy saving heat pump, HRV and ERV mechanicals will operate at full efficiency, because of the SipLock high-energy efficient construction design.
   b. *Just Two Minisplits Heat and Cool the Whole House.* Aug 17 2012 by Martin Holladay, GBA Advisor. www.greenbuildingadvisor.com
      For Carter Scott, heating a house measuring 1,700 to 2,000 square feet with two ductless mini-splits is no longer an experimental method. Itôs standard operating procedure ð one heôs used on 18 houses.
      Carter Scott was one of the first builders bold enough to build a cold-climate home heated by only two ductless mini-split units (one in the downstairs living room, and one in the upstairs hallway). Skeptics predicted that the unheated bedrooms would be cold and uncomfortable. Yet Scott was confident that the homeôs excellent thermal envelope ð with high-R walls, triple-glazed windows, and low levels of air leakage ð would keep the homeowners comfortable even when the bedroom doors were closed.
      Scott owns a construction company called Transformations in Townsend, Massachusetts. He built his pioneering two-mini-split house in Townsend in 2008.
   c. The addition of Solar, PV, wind or co-generation can facilitate removal from the electric grid.

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6. What are some cost saving examples?

In an independent energy survey, according to the Structural Insulated Panel Association (SIPA), an 180,000 SF senior living facility in Florida is saving thousands of dollars each month. HVAC costs have been verified at $0.025 (2 ½ cents) per SF.
A 28,000 SF residence has recorded HVAC costs of $0.018 (1.8 cents) SF.

A passive house could expect to use about 1.36KWh per square foot of HVAC conditioned space per year.
Reference: http://www.passivehouse-international.org/upload/ipha-brochure/

*In Florida, for example a Siplock Energy Star rated 2700 sq. ft. home could consume about .42 Kw per hour for HVAC, you could expect about a $25 monthly cost for HVAC.*
*2011 Florida Electric average rate is 12 cents per KWh.*
*A similar home in NY would be about $65 monthly for heating and cooling.*

The cost of electricity by state. (2011)
http://www.npr.org/blogs/money/2011/10/27/141766341/the-price-of-electricity-in-your-state

7. What other considerations are needed for your new Siplock construction.

a. State stamped concrete foundation design & engineering is offered at extra cost, by Siplock to meet local, state and national code requirements.
b. Siplock provides freight delivery on a direct cost basis to the customer.
c. Consultation, travel and per diem expenses may be necessary under special circumstances.

8. Customer responsibilities include.

a. Provide architectural drawings to Siplock, for engineering design and revisions, if necessary, to conform to the Siplock building system.
b. Provide a site survey, with building placement by a licensed surveyor, to Siplock.
c. Provide a copy of a soil compression test and soil analysis to Siplock.
d. Provide a level and easily accessible site pad for the building. Broom clean site pad prior to Siplock installation.
e. Obtain all necessary local and state permits.
f. Clearly mark all underground utilities by the utility companies.
g. Provide temporary water and electrical power at the site.
h. Provide porta-john and waste containers.
i. Provide insurance liability and casualty coverage from time of Siplock delivery to the site.
j. Provide staging, entranceway, parking and temporary fencing around the site.
k. Provide safety equipment including fire extinguishers, eyewash and first aid station.
l. Install waste and domestic water stub out.
m. Install concrete piers, footings and slabs ready for Siplock shell.

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