

Frequently Asked Questions

- 1. What is I-Core SIPS?** I-Core SIPS (structural insulated panel system) is a revolutionary new building system combining the advantages and characteristics of multiple proven building materials into a superior composite structural insulated panel system. It is a prefabricated panel system that includes excellent resistance to fire, wind, mould, rot, mildew, and insects. It is simple to assemble and finish as well as cost efficient, creating consistently high quality exterior and interior walls, and roofs. High performance class "A" fire rated polyurethane foam insulation is used in the exterior envelope panels, while EPS foam is used in the interior wall panels.
- 2. How does I-Core SIPS differ from conventional structural insulated panel systems?** I-Core SIPS is a structural insulated panel system, but that is where the comparison ends. Conventional structural insulated panels rely on the OSB sheathing skins for their sole structural support. It typically includes an EPS foam insulation core. An I-Core SIP differs in that it includes the structural strength of the magnesium oxide sheathing boards with the central OSB core (acting similar to an "I-beam") to provide additional strength. A conventional SIP requires drywall on the interior, building paper, wire mesh, and foam sheathing on the exterior side, all to be applied in the field. I-Core SIPS provides all of these steps in prefabricated panels.
- 3. How much does I-Core SIPS compare in cost to conventional stick framing?** Conventional stick framed construction requires laborious on site labor including; framing, sheathing, drywall, insulation, EPS sheathing, building paper, wire mesh and stucco. I-Core SIPS includes all of these steps in a prefabricated panel requiring little skill and time to assemble in the field. This results in a substantial cost reduction of the I-Core SIPS making it equal or more cost efficient than conventional stick framed construction. The magnesium oxide board skins are also easy and cost effective to finish with synthetic stucco coating or stucco.
- 4. How does I-Core SIPS compare in cost to conventional SIPS?** Conventional SIPS require vapor retardants, foam sheathing, and wire mesh applied in the field prior to stucco as well as drywall on the interior side of the wall requiring time consuming highly skilled labor. The prefabrication of the I-Core SIP saves substantially on labor in the field, thus making the cost of the I-Core system more cost competitive than conventional SIP systems.
- 5. How much does an I-Core SIP weigh?** A typical 4' x 8' x 4.5" panel weighs about 200 lbs, that can be handled by two workers.
- 6. How does an I-Core SIP compare structurally to conventional stick framed construction?** The combined strength of the exterior magnesium oxide sheathing boards and the interior OSB core, with the added rigidity of the polyurethane foam, creates a structural panel system 3-4 times stronger than conventional stick framed construction.
- 7. What is the R- Value of an I-Core SIP?** The 4 ½" I-Core SIP has a rating of R-22, while the 6 ½" panel has a rating of R-36. The closed cell polyurethane foam provides an R- value of 6.7/inch resulting in a highly efficient thin profile wall system. The panel is air tight requiring smaller heating and cooling mechanical systems resulting in reduced energy bills.
- 8. How do you install wiring?** Each four foot wide section of the I-Core SIP includes three 1" x2" electrical chases (2 horizontal and 1 vertical) on the interior side of the OSB core allowing direct mounting of the electrical boxes on the OSB. Wiring is then fished through the chases and around corners. The corners can be left open for inspection.
- 9. Does I-Core SIPS come in various sizes?** Yes, the standard width is 4', but the lengths come in 8' 10' and 12' sizes. The panels are easily cut to size to accommodate any width or length required.
- 10. What tools are required?** Typical carpentry tools including; beam saw, pneumatic T-Nail gun, glue gun, and carpet knife to prepare foam for metal track insertion.
- 11. Is the I-Core SIP fire rated?** The composite foam panel is made up of 1 hour fire rated magnesium sheathing boards and class "A" fire rated polyurethane foam providing superior fire resistance.
- 12. Is the I-Core SIPS insect resistant?** Yes, the magnesium oxide boards and polyurethane foam are inert materials providing no nutrients to insects.
- 13. Is I-Core SIPS environmentally friendly?** Yes:
 - The highly insulated energy efficient panels can reduce utility bills up to 60%
 - The production of the magnesium oxide boards is low tech and energy efficient producing minimal greenhouse gases. It is considered a Green/Eco friendly product
 - The panel system reduces job site waste
 - The polyurethane foam utilizes a sustainable sugar cane derivative as part of the polyol component of the foam
 - The air tight system allows control of the indoor environment providing a better living environment