

Structural Insulated Panels: Pros and Cons

(December 2, 2002) -- New Hampshire builder Jim Leroy testifies that homes made with factory-built structural insulated panels (SIPs), which are comprised of insulating foam surrounded by oriented strand board, are stronger and more energy efficient than those built with standard 2x6 walls. However, SIP technology has not been widely adopted because the homes can cost \$1 to \$2 more per square foot; the number of experienced contractors is limited; and improper installation can result in problems with moisture or insect infestation.

Even so, SIPs have been found to have a greater compressive strength and racking resistance than stick-built walls because they bear loads evenly; and Structural Insulated Panel Association President Bill Wachtler says they require just one experienced contractor on site. The walls are easily and quickly assembled; and extra drywall layers, decorative wood sheathing, and siding can be added either in the factory or as the house is going up.

Despite the high cost, anecdotal evidence suggests that SIP homeowners enjoy heating and cooling bills that are half of what their neighbors are paying for a standard dwelling of the same size. Buyers interested in SIP homes should first find a knowledgeable contractor and determine their level of experience in the SIP field, which manufacturer the contractor prefers, and if any moisture or insect complaints have been made. Furthermore, they should tour some SIP homes and ask existing homeowners about construction and energy costs before making a final decision.

Source: *This Old House* (12/01/02); Kollé, Jefferson