

A photograph showing three men working on a construction site. They are installing large, light-colored panels, likely oriented strand board (OSB), onto a structure. The man on the left is wearing a white polo shirt and blue jeans. The man in the middle is wearing a red tank top and blue jeans. The man on the right is wearing a light blue t-shirt and blue shorts, and has a tool belt. They are all pushing against the panels. The background shows trees and a clear sky.

# GENERAL PANEL CORP STRUCTURAL INSULATED PANELS

EXCELLENT  
STRENGTH AND  
STRUCTURAL  
PERFORMANCE  
WITH SUPERIOR  
ENERGY,  
EFFICIENCY AND  
LONG-TERM  
COST SAVINGS.

## PANEL CONSTRUCTION

### *What are structural insulated panels?*

- Structural insulated panels replace traditional frame construction and fiberglass batt insulation.
- Oriented strand board (OSB)—code one rated exterior plywood—is sandwiched around a core of rigid, expanded polystyrene (EPS) foam.
- A special structural-grade adhesive is applied to both sides of the unfaced core. The core is placed on top of a clean sheet of OSB. A second OSB sheet is positioned on the opposite side of the core.
- Environmental friendly materials are used in panel fabrication.
- Panels are put into a hydraulic press for 30-45 minutes then set aside for 24 hours, allowing the adhesive to completely cure.
- Panels can be made as large as 8'x24' and come in 4½", 6½", 8¼" and 10¼" thickness. General Panels are third-party tested by the Resource Application and Design and Control Agency.



*This thermographic photo (c) the reduced energy flow through the high flow through the windows.*

## ENVIRONMENTAL INFORMATION

### *The EPS foam core of General Panels has environmental advantages!*

- Will not decompose, decay or produce hazardous gases
- Contain no HCFCs
- Contains no CFCs
- Contains no formaldehyde
- Recyclable
- Moisture resistant
- No R-Value drifts

## STRENGTH AND INTEGRITY

### *General Panel Corp Insulated Panels provide a plumb, level and sound structure*

- The complete assembly allows for a system that is structurally stronger and straighter than conventional stud frame structures. The EPS core provides rigidity and the OSB outer skin provides tensile and compressive strength.
- The structural composition of each panel is compared to that of a structural steel I-beam—panel skins are equivalent to the I-beam's flanges, while the EPS core is comparable to the web.
- Roof panels and walls can be engineered to withstand winds up to 150 miles per hour.
- Two-dimensional structural continuity provides rigidity and stability by creating an uninterrupted layer over supporting or load-bearing beams.
- Panels provide necessary bending strength to withstand live (snow) and dead (roofing/equipment) loads. In most cases, panels span freely from the ridge beam to exterior walls or between widely spaced beams or purlins.

**T**ODAY, MORE AND MORE HOME BUILDERS AND ARCHITECTS RECOGNIZE THE VALUE OF STRUCTURAL INSULATED PANELS OVER TRADITIONAL "STICK" OR FRAME CONSTRUCTION. GENERAL PANEL CORP, AN INDUSTRY LEADER IN STRUCTURAL INSULATED PANELS, CAN PROVIDE YOU WITH A FREE ESTIMATE BASED ON YOUR SPECIFIC REQUIREMENTS. CONTACT US TODAY TO PROVIDE YOU WITH A MORE STRUCTURALLY SOUND BUILDING IN LESS TIME THAN TRADITIONAL FRAME CONSTRUCTION.

## LOWER COSTS

*Builders agree panels dramatically improve on-site construction quality and workmanship.*

- Window and door openings are pre-cut at the factory, reducing job-site scrap and waste.
- Pre-cutting greatly reduces the exposure to danger because builders don't need to use a saw, thereby reducing insurance costs. Such costs are often hidden in stick-framing.
- Factory fabrication helps to speed up and simplify a builder's construction schedule, greatly reducing construction time.
- Fewer workers and subcontractors are needed.
- Shorter construction time reduces chance of material losses from job site, losses that raise costs with stick construction.
- Panels readily meet national and local building codes.



*(courtesy University of Oregon) shows rough SIP walls and roof. Note the windows & doors.*

## USES AND ADVANTAGES

*General Panel Corp Insulated Panels are custom built to fit any residential or commercial design*

- Used for walls, roofs, ceiling and floors.
- Exterior finishes like siding, brick or stucco applied directly to OSB.
- Roof panels can be finished with shingles, tile, metal or other materials.
- On panel walls, no time is lost locating studs to hang drywall or siding. Fasteners are driven in any place along the panel.
- Suitable for single-story or multi-story construction.
- Free estimates are given based on your blueprints.
- Blank (unfabricated) panels also available.



CONTRACTORS AND ARCHITECTS ARE CHOOSING INSULATED PANELS (SIP) OVER STICK FRAMING. GENERAL PANEL CORP, THE LEADER IN SIP PANEL MANUFACTURING, WILL FABRICATE YOUR PANELS FROM YOUR BLUEPRINTS AND CAN BE USED FOR RESIDENTIAL OR COMMERCIAL USE. GENERAL PANEL CORP'S SIP PANELS ARE FULLY SOUND, ENERGY-EFFICIENT AND EASY TO CONSTRUCT.

**Oriented Strand Board**

**Pre-cut Outlets**

**Electrical Chase**

**EPS Core**



Electrical wiring chases are pre-routed in the foam core, creating a network of spaces through which wirings can be run from the building's exterior or basement through walls and floors to the attic. Chases are pre-drilled at 12" and 44" off the floor and vertically at all receptacle and switch opening locations above the finished floor.

# LONG-TERM SAVINGS

*Efficiency means real long-term savings.*

- General Panel's Structural Insulated Panels form a solid thermal envelope around the structure—virtually uninterrupted by studs—making them more airtight than conventional frame buildings. Many owners report savings 30 to 60 percent on their heating and cooling bills.
- Thermal bridging is less than in conventionally framed buildings. Gaps and spaces, typically found in batt insulation used in stick framing, cause energy losses. With no voids or cavities, the solid core insulation prevents air movement in the exterior walls.
- Unlike fiberglass batts, the solid foam core of General Panel's Insulated panels is resistant to moisture absorption and serves as an excellent sound buffer to reduce outside noise.



*Construction time is significantly reduced with General Panel Structural Insulated Panels. General Panel custom designs panels to meet your specific construction requirements. The panels can be used for exterior walls, floors, roofs and/or ceilings. The purchase price includes window and door cutouts and electrical chases. A limited warranty is provided to the original owner of any structure built with General Panel Structural Insulated Panels.*

## Advantages of General Panel SIPs

- Custom-built to fit any residential or commercial design
- More plumb, level and structurally sound than frame construction
- Improved on-site construction quality and workmanship
- Greatly reduced construction time and labor
- High energy efficiency means long-term savings on utility bills.
- When finished, panel construction looks no different than frame construction
- Panels can also be made from materials other than OSB, such as plywood, exterior-rated finish plywood, T-111 or Hardyboard. Contact General Panel for details.



*The solid wall construction of General Panel Structural Insulated Panels ensures a superior R-value (a measurement of heat transfer) than that found in conventionally framed 2"x 4" stud walls. Panels reduce the number of thermal breaks in a wall, which helps raise the R-value. The higher R-value of panels means reduced air infiltration. General Panel's 4 1/2 inch-thick wall panels have an insulating value ranging from R-14 to R-25, compared to R-11 to R-15 of wood-frame walls. With a stucco exterior and drywall interior, the panel will have a higher R-value. The thicker panels are used for roofs have even higher R-values ranging from R-30 to R-48. The panel thickness can be customized to meet your needs.*

Thinking about building?  
Call 1-800-251-7532 today  
for more information on  
Structural Insulated Panels.  
General Panel will provide a  
free estimate based on your  
blueprints.



## GENERAL PANEL CORP

**P.O. Box 5235  
Johnson City, TN 37602  
(800) 251-7532  
Fax (423) 929-7271**

**P.O. Box 279  
2604 Sunset Drive  
Grenada, MS 38901  
For quotes call: (601) 774-9999  
For information call: (800) 647-6130**