

## The Environment



One of the most environmentally responsible building materials on the market, Premier SIPs (Structural Insulated Panels) work hard to conserve natural resources, energy and indoor air quality.

Used in the building process to construct roofs, walls and floors, Premier SIPs consist of an Expanded Polystyrene (EPS) core laminated between two sheets of Oriented Strand Board (OSB). Builders who use Premier's large SIPs are able to frame a building faster,



with very little waste. In fact, buildings framed with Premier SIPs waste about 60% less material than buildings constructed out of traditional stick frame lumber.

## The Green Factor: How Green Are Premier SIPs?



### Contact us for more information:

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STRONGER. STRAIGHTER. GREENER.



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Premier SIPs are a true green building product, that also provide superior structural support.



## STRONGER.

Far stronger than stick-frame construction...

- Extensive testing confirms that Premier SIPs are stronger than conventional framing
- Strong framing product allows for longer spans, often without a truss system
- More durable against earthquakes, storms and insects



## STRAIGHTER.

Why settle for the imperfections of lumber?

- Large panels form straight and consistent engineered walls with less warps and cracks than stick framing
- Reduced framing installation time with fewer builder callbacks
- Straight factory cut doorways, windows, and archways



## GREENER.

The ultimate green framing product...

- Up to 60% savings on heating/cooling costs
- Better indoor air quality and exceptional comfort
- Reduced pollutants and energy consumption
- Premier SIPs provide valuable points towards building initiatives (LEED, NAHB GBG, Article 24, etc.)



## Conserving Natural Resources

Premier SIPs are purposely produced from products that are made from recycled content to help conserve our natural resources:

- **OSB (Oriented Strand Board)** – OSB is used as the exterior skins of a Premier SIP. OSB is produced from a wide range of fast-growing species specifically harvested for OSB production. The production process for OSB is highly automated so the yield of finished product is very high. FSC (Forestry Stewardship Council) certified OSB is available by request.
- **Insulating Foam** – The expanded polystyrene that is sandwiched between the two OSB skins is manufactured using heat and steam and contains no chlorofluorocarbons (CFCs), hydrochlorofluorocarbons (HCFCs) or formaldehyde and is 100% recyclable.
- **Adhesives** – The adhesives used in the manufacturing of PBS SIPs are urethanes.
- **Mastic** – Premier has two types of mastic. A standard mastic and a low VOC option.
- **Chemicals and Offgassing** – There are minimal amounts of chemicals and offgassing released into the environment from Premier SIPs. The OSB skins on Premier SIPs have trace amounts of naturally occurring formaldehyde found in the adhesive used to bond the OSB chips. According to the APA these small amounts of phenol formaldehyde do not release significant amounts of formaldehyde into the environment. Tests from the U.S. Forest Products Laboratory found that the trace amounts of formaldehyde were so small they were difficult to measure and were consistently well below 0.1 parts per million (ppm). *To help put this in perspective, the amount of formaldehyde in the OSB used in Premier SIPs products is comparable to the same level that naturally occurs in an apple or an onion.*

For more information on formaldehyde, visit [www.apawood.org](http://www.apawood.org).

## Superior Energy Conservation

While builders gain from using fewer natural resources in the construction process, it's the homeowner who really benefits. Studies have been conducted in both hot and cold climates and have shown that homeowners living in homes constructed of SIPs save between 40% and 60% on their heating/cooling costs. Paired with solar energy options, a Premier SIPs home may get very close to a zero energy home.

## Better Indoor Air Quality

The insulating properties of Premier SIPs offer homeowners a tight home with very few places for energy to escape and for unhealthy airborne substances to enter.

Premier SIPs are manufactured in sizes ranging from 4–12" thick and up to 24' in width. These SIPs are manufactured in a controlled environment and shipped directly to the job site. Premier SIPs can be used for the entire building envelope. When compared to stick frame construction (where pieces of lumber are spaced 16" to 24" apart) Premier's pre-insulated panels have very few gaps, providing a more consistent interior home climate while reducing air conditioning and heating bills.

## Environmental Rating Systems: LEED & NAHB GBG

There are so many environmental terms floating around: green, environmentally responsible, sustainable, energy efficient and natural resources. To better qualify building products as "environmentally responsible" there are two key rating systems in the industry. Both programs enable buildings to earn points based on environmental criteria.



## LEED

The LEED (The Leadership in Energy and Environmental Design) Green Building Rating System™ is the nationally accepted benchmark for the design, construction, and operation of high performance green buildings. It is sponsored and managed by the U.S. Green Building Council (USGBC). To obtain a LEED rating a building must be evaluated by a certified LEED rater. There are four levels of LEED certification based on points earned.

<b>Platinum:</b> 52-69 total points	<b>Silver:</b> 33-38 total points
<b>Gold:</b> 39-51 total points	<b>Certified:</b> 26-32 total points

Up to 23 points may be earned for using Premier SIPs in construction.

When a building is LEED rated and certified it can qualify for substantial tax credits, depending on the certification earned. Specific tax credit information varies by region. For additional information visit [www.leadbuilding.org](http://www.leadbuilding.org)

*Please note the point values are for informational purposes only. Every home must be evaluated by a LEED Certified Accredited Professional to accurately measure LEED certifications.*



Contact us for information on just how green Premier SIPs are:

[www.pbssips.com](http://www.pbssips.com) 800.275.7086

## NAHB GBG

The NAHB (National Association of Home Builders) in the process of revising its Green Building Guidelines, which are voluntary guidelines for builders to use in residential construction. A qualified analyst is recommended to rate a home according to these voluntary guidelines, however it is not required. There are three levels of qualification based on a home's building characteristics.

*Please note: The guidelines are currently being revised for release in early 2008. The details below are based on the 2006 guidelines.*

<b>Total Possible Resource Efficiency Points w/PBS SIPs</b>	24
<b>Total Possible Energy Efficiency (Prescriptive) Points w/PBS SIPs</b>	34
<b>Total Possible IEQ Points w/PBS SIPs</b>	38

NAHB GBG Required Resource Efficiency Points	
Gold	77
Silver	60
Bronze	44
Required Energy Efficiency Points	
Gold	100
Silver	62
Bronze	37
Required Indoor Environmental Quality (IEQ) Points	
Gold	72
Silver	54
Bronze	32

For additional information on the Green Building Guidelines visit NAHB's website: [www.nahb.org](http://www.nahb.org).