

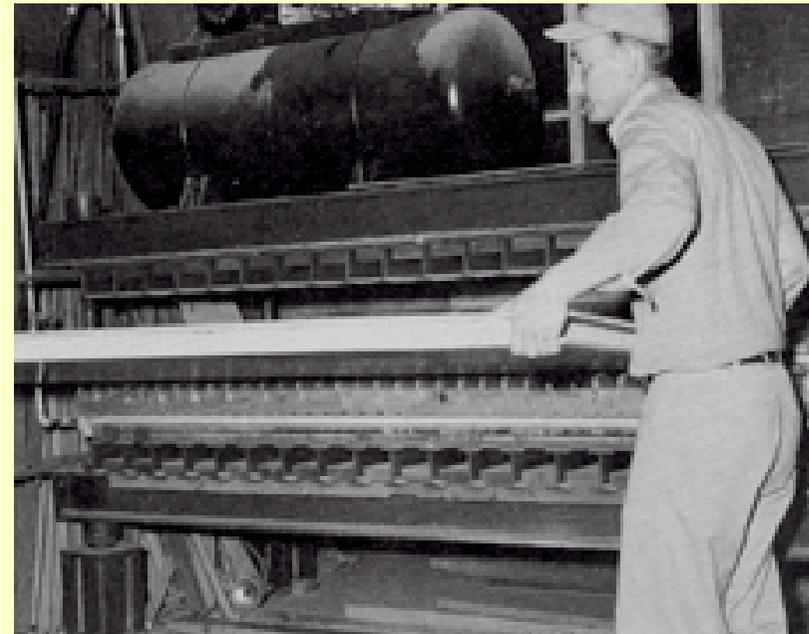
Structural Insulated Panels

The Future of Building with SIPs



Early SIPs

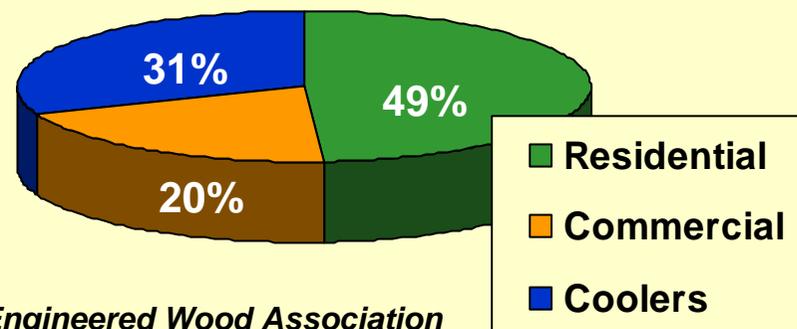
- Invented in the 1930's by the US Forest Products Research Laboratory
- Utilized by notables such as Frank Lloyd Wright and Alden Dow (brother to Dow Chemical Founder)
- The Common Goal:
 - energy efficiency
 - combat dwindling resources
 - provide low cost housing



Today's Market

The SIP Industry
produces more than 56 Million Square Feet
of Structural Insulated Panels per year

Almost 70% of that is used in the construction of
Residential and Commercial buildings



APA-The Engineered Wood Association
Craig Adair, Director, Market Research *April, 2005*



Industry Trends



- Sustainable Housing
- New Commercial and Government Applications
- Panelized Housing
- Turn-key Packages
- Green Building

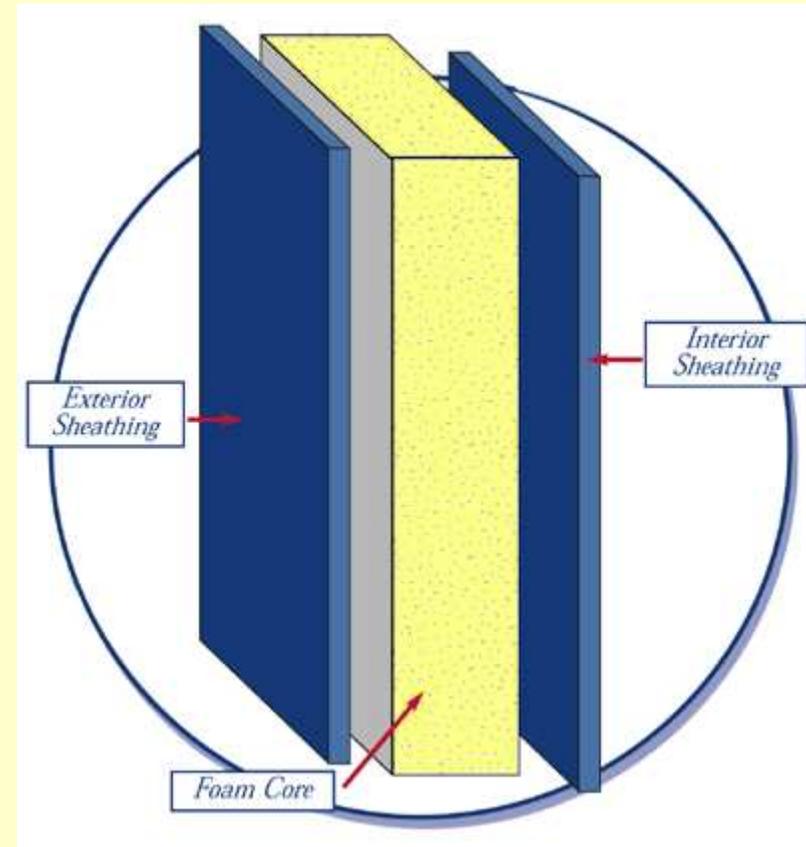
Why Use SIPs?

- **Structurally Superior**
 - **Energy Efficient**
 - **Cost Effective**
- **Factory Fabricated**
 - **Adaptable**

Structurally Superior

A Polyurethane Core has the

- Highest R-Value
- Highest UL Fire Rating
- Best Wind Load Tests
- Thicker Density
- Customer Preference



Wind Load

Polyurethane (PUR)

180 MPH

*Category 5 Hurricanes
are winds greater
than 155 MPH*

Polystyrene (EPS)

140-160 MPH

“... SIPs Stand up to Tennessee Tornado Winds”



Aside from the SIP house being lifted and shifted by the tornado, the house had survived intact, with apparently very little damage.

Fire Resistance

Features	Polyurethane (PUR)	Expanded Polystyrene (EPS)
Class 1 UL Rating	YES	NO
Thermal-set plastic	YES	NO
1200 Degrees House Fire	Resist, Char	Melt, Flame

...See how our Greenix Panels stand up to C-4 Explosives



Greenix™ Panels
Greener. Cleaner. Safer. Stronger



Read the whole story at
<http://CommercialSIPs.com>



Energy Efficient



- R-Values
- Immediate Energy Savings

R-Value

Panel Thickness	Polyurethane (PUR)	Expanded Polystyrene (EPS)	Traditional Stick Frame 2"x4"
4.5"	R-25	R-17	R-12 with Fiberglass Batts
6.5"	R-40	R-21	
8.5"	R-52		
10.25"		R-35	
12.25"		R-50	

EPS has a value of R-2 to R-5 per inch.
 Polyurethane has an R-Value of R-7 to R-8 per inch.

2 x 4 Wood Stud has a value of R-1.25 per inch.



Energy Savings Case Study #1

Watertown, S.D.	SIP Frame	Conventional Frame
Walls	5" core panels, R-24	6' fiberglass batts with 1" foil sheathing; R-24
Ceiling	7.5" core panels, R-38	12" fiberglass; R-32
Heated Area	Main Floor & Basement	Main Floor
Heating Bill Jan-Mar	<u>\$85</u>	<u>\$263</u>

Source: Enercept, Inc., Watertown, SD

Compare Polyurethane SIP: 4.5" R-25, 6.5" R-40



Case Study #2

El Jebel, Colorado	SIP Frame	Conventional 2"x6" Frame
Walls	R-22	5.5" fiberglass batts plus 1/2" exterior Insulated, R- 22 with drywall (5/8")
Ceiling	R-38	fiberglass batts, R-38 (R-30 in slope)
Heated Area	Whole House	Whole House
Heating Bill Oct-Dec	<u>\$112</u>	<u>\$450</u>



Source: Big Horn Construction Services, Carbondale, CO

Case Study #3

Ludlow, MA	SIP Frame	Conventional 2"x6" Frame
Walls	R-25	5.5" fiberglass batts, R-19
Ceiling	R-33	9" fiberglass batts, R-30
Heated Area	Whole House	Whole House
Heating Bill Oct-Dec	<u>\$30</u>	<u>\$131</u>



Source: Waverly Heights Development Corporation, Ludlow, Mass.

Case Study #4



Place: Idaho State Liquor Stores, Nampa, ID

According to the Idaho State Liquor Dispensary, the building saves them operating expenses every month.

	Building #1 6.5" SIP Walls	Building #2 2"x6" Frame Building
DEC '97	\$38.45	\$158.92
JAN '98	\$64.85	\$176.46
FEB '98	\$29.36	\$112.85
MAR '98	\$22.07	\$72.81
Total	<u>\$154.73</u>	<u>\$521.04</u>

Savings over a 4 month period = \$366.31



Cost Effective

From the Factory

- Pre-Fabricated Components
- Product Control
- Enhanced Cost Control
- Controlled Environment



Cost Effective

In the Field

- Reduced Labor
- Faster Build-Out Time
- Less Dependence on Skilled Labor
- Material Control
- Build Year Round



Factory Fabricated

- Produce Mass Quantity
- Competitive Pricing
- Service Builder Accounts



Adaptable

- Integrate SIPs with New Products
- Multiple Building Uses
- Alternative Building Solutions
- Conversion Packages for Residential Plans
- Commercial
- Industrial
- Custom Design Build

Owner Benefits

- Energy Efficiency
- High Resale Value
- Fire Resistance
- Storm Resistance
- Quieter Healthier Living
- Design Flexibility
- Rebates and Tax Incentives



Builder Benefits

- Specialty Builder Category
- Reduced On-Site Labor
- Faster Build-Out Time
- Build Year Round
- Faster Profit Realization
- Reduced Theft
- Lower Administrative Costs



Architect Appeal

“We could not have done the two ‘view catchers’ without SIPs” - Michael McDonough, AIA



e-House in NY's Hudson Valley

Affordable Housing

- For lower consistent energy bills for homeowners, Community Housing Resource Center built a SIP home in Atlanta, GA
- Habitat for Humanity uses SIPs for their affordable housing plans
- SIP Supply offers over 100 affordable home kits



Environmental Concerns

We are now testing Soy-based Polyurethane foam products for our SIPs

We use the most efficient production measures in the factories

Our manufacturer's fabrication system produces less jobsite waste



HFC-245a Polyurethane

Foam Physical Characteristics

		
HCFC-22 "Tear Drop" Voids in foam Somewhat uneven densities Good adhesion to skin	HFC-134a Somewhat uneven densities Somewhat weak adhesion Small voids in foam	HFC-245fa Fine/uniform cell size Good Dimensional stability Good adhesion to skin Even densities

Environmentally positive and a better product

Sarah Susanka uses SIPs



Sarah Susanka, FAIA

- "build better, not bigger" approach to residential architecture
- "innovator in American culture" in 1998 by U.S. News & World Report
- In 2004, demonstrated her Home By Design Showhouse at the NAHB International Builders Show [SIPs were used]





The Company

SIP Supply – Worldwide Supplier of Structural Insulated Panels



SIP Supply is a Volume Producer

- Offer the most competitive prices in its product class
- Price competitive with traditional framing methods
- The first to deliver product on a mass market level
- Backed by producers committed to be SIP Leaders
- Works with automated technology leaders



Aggressive Technology

- Only Sell Top of the Line Product
- Deliver “SIP Housing Systems”
- Design Turn-key Packaging
- Focused on Volume

Expertise & Know How

- Solid Team
- Customer Service
- Marketing Programs
- Product Development
- Volume Sales
Producers
- Substantial Lead Generation
- Construction Experience
- Housing Developments
- Education & Training
Programs
- Government Contracts



Customer Service

- Experienced Staff
- Construction Knowledge
- Training & Manuals
- Ongoing Support for Builders
- Marketing Support Materials



Education

SIP Supply is credited with developing the first American Institute of Architects (AIA)- Accredited educational training program for a SIP product.

Benefits:

Educate Trade Professionals about SIPs

Now Providing the Course to the Public



Finest SIP in Market

The market is now beginning to understand the superiority of a Polyurethane core SIP over an EPS foam SIP.

We take that to the next level. Our PUR SIPs are the finest in our own product category.



Our Polyurethane SIP



- In 2007 SIP Supply acquired **Insulated Component Structures**, the reputable SIP manufacturer carrying patents and a proven manufacturing processes

Automation

SIP Housing Systems

SIP Supply develops, markets and sells single and multifamily panelized SIP housing systems consisting of complete kits fabricated in sections and delivered turn-key to the customer's jobsite.

- SIP Home plan Catalog
- Turnkey SIP Systems including optional doors, windows, cabinets, etc.
- Designed for Volume Output



Interior Components

sourcing service available

- Enables SIP Supply to offer builders true turnkey SIP Kits
- Most affordable SIP turnkey solution as a result of volume buying power
- Now SIP Supply can provide volume builders a choice of interior finishes ranging from Appliances, Lighting, Interior Trim and even a Flooring Component



SIP Conversions

- SIP Supply can convert your existing house plans and factory produce them as your proprietary SIP home
- Builders can now offer these SIP options to their clients thus doubling their product line and capturing a new niche of homebuyers
- SIP Supply delivers factory fabricated components to your jobsite ready for assembly



Multi Use SIPs

- Tongue & Groove
- Fiberock
- Wood
- Cement
- Fiber Reinforced Plastic (FRP)
- Metal Sheathing
- Steel Frame



This technology enables SIP Supply to work with architects, contractors and builders to deliver products that conform to spec.



SIP Supply Objectives

- Forward Thinking
- Superior Product
- Solid Backing & Support
- Committed to Expansion
- Volume Producer
- Environmentally Supportive
- Dedicated Personnel
- Large Scale Projects
- Military Supplier



Committed to Worldwide Expansion

SIP Supply is currently working with International companies to enter the overseas market with affordable SIP housing

We are always negotiating to open worldwide manufacturing facilities and distribution channels



Our SIP Mission

- Market & Sell affordable “SIP Kits”
- Defragment the SIP industry
- Generate sales to achieve mass market status



SIP Supply would like to thank you for this opportunity to provide to you top quality product and service.



Greenix™ Panels
Greener. Cleaner. Safer. Stronger

Darrell Simpson, Sr.
President
SIP Supply, LLC

Atlanta, Georgia

770-776-6198

