STRUCTURAL INSULATED PANELS

Green for all the right reasons



The difference is immediately obvious



It takes just a quick glance at an R-Control SIP to see that something is distinctive about these panels. They're green.

The green color provides far more than identification. It is the color of FrameGuard® mold-resistant treatment, a factory-applied coating that protects the SIP facing against mold, and also against fungi and termite damage. Its combination of anti-mold and termite additive

of anti-mold and termite additive technology makes wood products unsuitable for nourishing termites and fungi which can thrive on untreated surfaces.

Prevention of mold growth means fewer mold spores in the air, contributing to healthier indoor air. The coating also means building owners will not have to worry about problems from wood-destroying organisms.

The properties of FrameGuard® wood have been widely recognized in trade journals and in environmental circles. It has won a Green Building Award from the National Association of Home Builders, and it is listed in the GreenSpec® directory of environmentally preferable products.





EPS with a beneficial twist

Between the structural facings of oriented strand board is Foam-Control® EPS (expanded polystyrene), but this EPS is bolstered by Perform Guard® termite-resistant additive.

Foam-Control EPS contains no CFC, HCFC, or HFCs that can deplete atmospheric ozone, and it is 100% recyclable by Foam-Control locations.

Developed expressly for EPS, the Perform Guard formulation gives to insulating foam what the FrameGuard coating gives to OSB – resistance to termites. This additive is EPA-registered, code-compliant, and effective, yet it presents no health risks to inhabitants.

Through these two special formulations, simple components such as OSB and EPS are transformed into a formidable building product: a mold- and termite-defying panel that offers superior structural support and exceptional insulation.







The benefits of SIPs

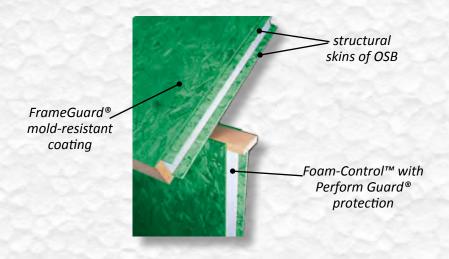
The building industry and building owners have been impressed by the attributes of SIP construction. Introduced more than three decades ago and spurred by the desire to control energy expenditures, SIPs boast a list of noteworthy benefits:

- Reduced energy bills from state-of-the-art energy efficiency and insulation
- Superior strength in the face of wind and earthquakes
- Quick installation; up to 50% faster than stick framing
- Lower jobsite labor costs because there is less jobsite labor
- Lower waste and theft at jobsites

All of this is accomplished without sacrificing design possibilities.

On top of this, the FrameGuard coating and Perform Guard EPS additive offer resistance to mold, termites, and decay.

Note: FrameGuard coated SIPs and wood materials are for indoor use. They cannot be used in ground contact applications, and must be protected from weather within six months of field installation.



Green building & R-Control SIPs

The LEED (Leadership in Energy and Environmental Design) rating system, the Energy Star Program, and the National Green Building Standard recognize the value of SIP construction and grant credits for SIPs in numerous categories.

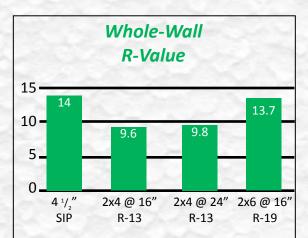
Here's why:

- SIP construction reduces a building's energy requirements
- R-Control SIPs are produced locally
- OSB is an efficient use of wood resources
- OSB can be manufactured with material from certified forests
- Foam-Control EPS does not contain ozone-depleting blowing agents
- · Foam-Control EPS is 100% recyclable by Foam-Control locations
- With SIP construction, there is less jobsite waste
- A healthier indoor environmental results from tightness of SIP construction, reduced infiltration by allergens, and reduced mold from the FrameGuard coating

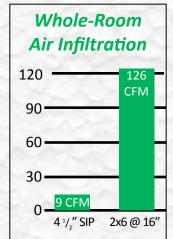
R-Control SIP homes can comply with the U. S. Department of Energy's ENERGY STAR® New Home program without conducting on-site blower door testing.

Building owners save on energy bills

Extensive testing has shown the effectiveness of the high R-value of R-Control panels combined with the fewer thermal breaks and lower air infiltration resulting from SIP construction.



The R-value of a whole wall can be considerably lower than the R-value of the insulation. Whole wall R-value calculation procedures factor in all of the effects of additional structural members at windows, doors, and exterior wall corners.



A SIP test room displayed far greater airtightness than an identically sized room built with 2x6 framing and fiberglass insulation. (Oak Ridge National Laboratories)

R-Control SIP R-Values

Panel Thickness	R-value at 75°F	R-value at 40°F
4 1/2"	14.9	16.0
6 ¹ / ₂ "	22.6	24.3
8 1/4"	29.3	31.6
10 ¹ / ₄ "	37.0	39.9
12 1/4"	44.7	48.3

Independent testing has confirmed the insulation value of R-Control SIPs.

Getting started

When you choose R-Control SIPs, you can collaborate with a team of experts willing to work with you throughout the design and installation process. They'll do what they can to make sure the project proceeds smoothly — and ends successfully.

R-Control SIPs are manufactured by a network of R-Control licensed manufacturers. These companies adhere to strict standards to ensure specifiers and owners of consistently high-quality EPS products.

To get started, contact your nearest R-Control manufacturer. Visit www.r-control.com to locate your closest R-Control SIP plant that will answer your questions, provide test data, work out pricing details, and support your use of R-Control SIPs.



CONTROL, NOT COMPROMISE.

CONTROL YOUR:

- MATERIALS
- R-VALUES
- PROCESS
- COSTS
- TIMELINE
- LIABILITY

DON'T COMPROMISE YOUR:

- DESIGN
- ENERGY EFFICIENCY
- STRUCTURAL INTEGRITY
- PROFITABILITY
- QUALITY
- REPUTATION



For more information, visit

www.r-control.com

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