



Structural Insulated Panel

R-Control® SIPs

(Structural Insulated Panels) are a strong structural system consisting of Perform Guard® Expanded Polystyrene (EPS) insulation laminated to oriented strand board (OSB) forming a structural panel. R-Control SIPs are used for walls, roofs, and floors. They resist loads caused by wind, snow, and seismic activity.

Design Options

R-Control SIPs offer unlimited design possibilities for both commercial and residential applications. For residential use, R-Control can be used for any home plan, from traditional to contemporary. R-Control SIPs are a proven performer for commercial structures, including office buildings, schools, churches, apartments, strip malls, and community buildings. They are especially cost-effective when optimum strength, comfort, performance, and energy efficiency are demanded by the building owner, designer, and builder.

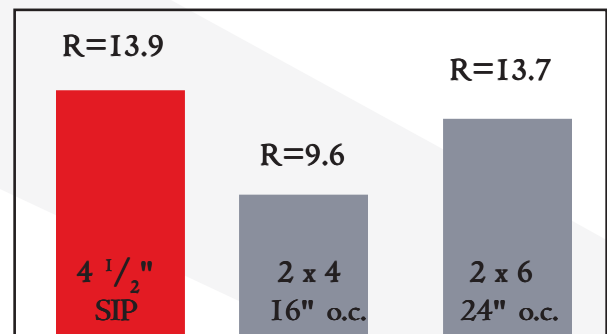


Energy Efficiency

R-Control Building Systems supplied R-Control SIPs for full scale thermal testing at Oak Ridge National Laboratory (ORNL). Testing evaluated R-Control SIP performance compared to the most widely used building systems. The test program was sponsored by the Structural Insulated Panel Association (SIPA). ORNL testing demonstrated that SIP connections did not create cold spots. This contrasted to stick built walls which had cold spots over each lumber stud in the ORNL testing. Dramatically reducing cold spots provides a more comfortable interior environment, an advantage in building with R-Control SIPs.

4 1/2" thick R-Control SIP walls were tested against 2x4 and 2x6 traditionally framed walls. The R-Control SIP significantly outperformed 2x4 stud walls and also outperformed thicker 2x6 stud walls.

Results are conclusive, 4 1/2" R-Control SIPs have better whole wall R-value than 2x6 batt insulated construction.



Whole Wall R-Value, ORNL Testing

To learn more about whole wall R-Value visit ORNL's website: www.ornl.gov/roofs+walls

Build Faster

R-Control SIPs help you build faster. Labor time savings range from 30-40%. The contractor's crew spends more time building and builds more in less time.

R-Values:



SIP 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

R-Control SIPs are available in sizes from 4'x8' to 8'x24'.

Structural Integrity

R-Control SIPs have passed structural and fire tests as prescribed by national building code authorities. Load tests include transverse, vertical compression, and racking shear loading. Fire tests include corner room burn and fire exposure under load.

Industry Affiliations:

SIPA, NAHB, AIA,
EPSMA, ICFA, NRCA




R-Control Building Systems

(800) 255-0176 General Information

(800) 255-3908 Technical Information

www.r-control.com

Treated To Resist Termites

R-Control incorporates a thick core of rigid Perform Guard EPS termite resistant insulation. Perform Guard is made under a patented process* which uses a natural mineral that is formulated to resist termites and builds it right into the insulation. Please review  literature for complete information.

Quality Control and Warranty

Panels are factory made to exacting standards monitored by Underwriters Laboratories Inc.® and recognized by national codes and regulatory bodies. R-Control offers a product warranty for R-Control SIPs ensuring structural integrity, thermal performance, and termite resistance.

Environmental Advantages

R-Control EPS contains no CFCs, HCFCs, HFCs, or formaldehyde. It is inert, non-nutritive, and highly stable. We encourage you to support recycling and energy conservation.



Availability

R-Control Building Systems is North America's largest provider of Expanded Polystyrene (EPS) Insulation Products and Systems with licensed facilities located throughout North America and the world. Please contact your R-Control Building Systems supplier for design consultation, availability and pricing.

* Perform Guard EPS has been tested against termites. A list of specific species is on file. Perform Guard is protected under U.S. Patents No. 5,194,323 and No. 5,270,108. Copyright © AFM Corporation 2005 All rights reserved. 1/05 Printed in USA. R-Control and Perform Guard are registered trademarks of AFM Corporation.

