



SIPs Stand Up to Hurricane

PORT CHARLOTTE, FL –Charley, a category 4 hurricane, blew through Port Charlotte mid August 2004 with 140 mph winds. While many homes suffered severe damage, one home owner escaped with minor dents to her roof.

The house, located in the southern part of Port Charlotte in an area that experienced some of Charley's fiercest winds, was constructed with Structural Insulated Panels (SIPs), a more energy-efficient and disaster-resistant building material. Because it withstood the winds of Hurricane Charley better than many of its neighbors, officials for the U.S. Department of Housing and Urban Development staged a press conference at the home to applaud the use of SIP construction.

"We want to showcase the good performance of this new housing material, which HUD and the Partnership for Advancing Technology in Housing has researched," said HUD Assistant Secretary Dennis Shea. According to Shea, the home "sustained minor damage that was quickly and cheaply repaired". HUD promotes research to identify affordable, energy-efficient, disaster-resistant technology, he explained.

The home was built one month before Hurricane Charley. In using the SIP wall and roof system the builder only needed three days to construct the shell. The energy efficiency of the panels has resulted in electricity bills of no more than \$45 a month, which includes running an air conditioner during the summer.

Ilicia Gordan who lives in the home said she evacuated the SIP house the day before the hurricane hit. When she returned, she found the only damage being two dents in the roof where pine trees had fallen. "A lot more people have a lot more damage, so I think it held up pretty well," Gordan said.

SIPs approved for use in all seismic zones

In early February, the International Code Council's Evaluation Service (ICC-ES) approved the use of structural insulated panels (SIPs) on the West Coast where high-risk seismic zones exist (Seismic Categories D1, D2, and E.) This is good news for building professionals of all types and homebuyers who want a stronger, safer home with the inherent energy savings and comfort homes built with SIPs provide.

In a collaborative effort facilitated by SIPA on behalf of the industry, partnered with Premier Building Systems, Tolko Industries, the ICC-ES, and the APA - The Engineered Wood Association (APA) proposed the revision to the current Acceptance Criteria, AC04, and established a testing protocol in concert with the other collaborators. In APA's initial testing, it completed a series of cyclic shear wall tests on SIPs, repeatedly subjecting them to varying degrees of load magnitude and amplitude. Then it compared those results to code-accepted, conventional wood framed shear walls. The results show that SIPs have cyclic performance characteristics similar to or better than stick-built walls.

Tom Williamson, APA's vice-president of quality assurance and technical services, explains, "We did cyclic testing and found that it did provide for what's permitted by the codes for residential construction, and therefore at the last ICC-ES hearing it was approved as part of the Acceptance Criteria. Now SIPA members can approach testing laboratories such as APA to conduct this test on their structural insulated panels."

"The APA testing protocol will enable SIPA member manufacturers to demonstrate that their panels meet the cyclic load test criteria adopted by the ICC-ES," According to Bill Wachtler, SIPA's Executive Director. "Now SIPs can be used everywhere in the U.S., including the previously inaccessible West Coast states and Alaska. That's good news for our members and for their customers."

This article and others can be found at www.sips.org
