TECH BULLETIN



Subject: Shear Walls

Date: November 2007 (Revised January 2015)

Racking shear tests have been conducted on R-Control SIPs to demonstrate the capabilities of R-Control SIPs as shear walls.

 $8' \times 8'$ walls were constructed with R-Control SIPs connected with a surface spline joint. The wall assembly was subjected to racking shear loads as specified by ASTM E 72. The 8' long R-Control SIP wall assembly resisted an average ultimate load of 8357 pounds. This equals a loading of 1045 plf.

A design shear of 335 plf is recommended based upon the average ultimate divided by a factor of safety of three. In addition, the 335 plf result is less than 1/8" deflection as required by the ICC ES acceptance criteria for sandwich panels.

The design value of 335 plf is for standard applications following standard recommended R-Control SIP details.

Design shear values up to 920 plf can be obtained using additional fasteners. Please refer to R-Control SIP Load Design Chart #6 for additional information.



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Office: 501-945-1114

