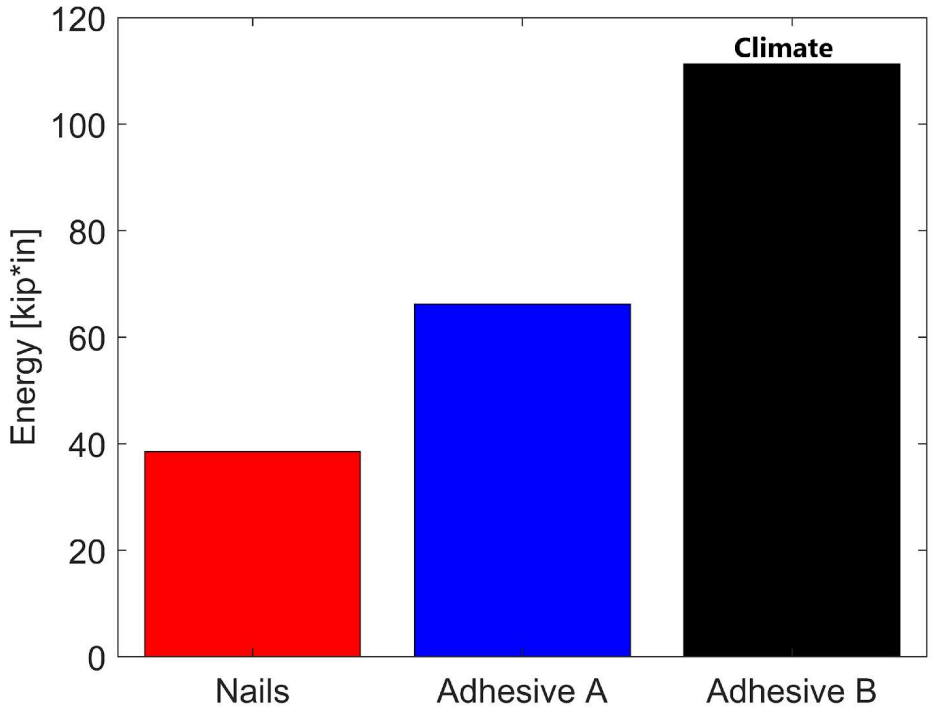
Results of Wall Test Expressed as Total Energy Absorbed to Failure



Specimen description:

8 X 8 feet light frame wood (LFW) shear wall specimens consisting of 2X4-inch Douglas fir frames and 3-ply plywood sheathings of 4X8 feet and 3/8-inch thickness.

The nails specimen utilizes standard nailing specified in the Special Design Provisions for Wind and Seismic (SDPWS). No adhesive.

Adhesive A consists of a conventional polyurethane (PU) adhesive applied as a 0.25-inch bead along the sheathing-frame connections. No nails.

Adhesive B consists of Climate, a Silyl Modified Polyether (SMP - Climate) adhesive applied as a 0.25-inch bead along the sheathing-frame connections. No nails

To evaluate the seismic capacity performance, the researchers tested the specimens under lateral cyclic loading simulating ordinary ground motions.

The bar chart above shows total energy absorbed by each specimen to failure.

Alhawamdeh, B. & Shao, X. (2023, August) Enhancing light-frame shear wall performance with elastomeric adhesives. A test program study. Structural Adhesives. *Structure Magazine*, 50-52. https://www.structuremag.org/?page_id=24674