

Nucleus Building Systems/ Structural Insulated Panel System.

Our panels are designed specifically for earthquake zones and are one of the best building methods in these regions and overall make the most sense on every competitive level. Scientific testing has shown that they can withstand over a magnitude of 10 on the Richter scale and have even outlasted the test equipment. They have proven to be stronger than any known earthquakes so far recorded by man. Each panel is securely bonded to the next and screwed together to ensure a permanent bond. As a result, they become a single unit that is structurally sound and evenly distributes stress throughout the structure, increasing the survivability rate. Even the joints are as strong as the entire panel itself once the assembly is completed. We don't use wood or nails in our structures since nails tend to pull out from the wood framing during an earthquake, which is called racking. Hence, building with our product is the safest and best option in a disaster situation.

Our building panels are incredibly strong, thanks to the stressed-skin technology used in their manufacturing process. They can be utilized to construct foundation or basement walls, even below grade. These panels can also be used for floors spanning up to 18 feet between supports and load-bearing walls reaching up to four stories. Our roof panels are capable of spanning up to 24 feet! It is worth noting that our panels are certified by the International Code Council (ICC).

Our standard panels can withstand winds over 200 mph and can be easily upgraded to endure winds well over 250 mph and up. Additionally, we have surpassed the highest hurricane and tornado testing standards in Florida.

Our panels don't require sheet-rock, which is a favorite food for mold and mildew. The Cement Board is primed at the factory, making it moisture and mold-resistant, and won't decay. Plastic 2x can be used instead of wood and formaldehyde, eliminating those risks. Most homes are also not properly ventilated. Our buildings are tight with an air-to-air exchanger, resulting in superior indoor air quality.

We use expanded polystyrene foam for the panel which has a solid core without any air, making it fire-resistant. It has no flash point because it's a base masonry product!

For an average 1,500 square foot home, a 3-4 ton air conditioning unit would typically be needed for heating and cooling. However, in a panel home, a smaller 1.5-2 ton unit would suffice, resulting in a 50% cost savings for the purchase of the heating and cooling unit. We can produce insulated panels of any thickness to meet the desired "R" rating.

Fiberglass insulation is required by law to have a cancer warning. We use expanded polystyrene foam instead, which has no harmful effects on the Ozone layer. Additionally, it maintains its R-value over time and is not impacted by water, unlike other types of foam and fiberglass.

All panels are manufactured according to the specifications provided by the clients. The exterior and interior skins are customized as per the client's requirements. At our factories, all the cuts for roof angles, doors, windows, and corners are completed if requested by the customer. This results in less time and labor required on-site.

We are cost-effective and can build in all areas. Residential Commercial, multifamily, retail, refrigerated space, clean rooms or laboratory environments, etc. To learn more about opportunities available through our panels, fill out the contact form and we will be in touch with you.

