



NACSI ADVANCED COMPOSITE HOUSING SOLUTIONS

Many companies talk about being green while other companies act green.

At NACSI, we continually invest in research and development as part of our ongoing commitment to manufacturing the world's most advanced Structural Insulated Panels (SIP). Panels designed to work in harmony with the Environment and surrounding Eco-Systems to minimize a building's carbon footprint.

The problems associated with traditional building methods can no longer be ignored. Reports have indicated that cement production contributes up to seven percent (7%) of the World's pollution problems while deforestation is further contributing to global warming and negatively impacting important habitat.

Compounding the challenge of creating a more environmentally friendly building material, NACSI designers also had to consider the natural forces such as wind, rain, snow, heat and cold, as well as earthquake and flood scenarios. NACSI has met this challenge with the introduction of their Structural Insulated Panels using natural fibres and organic plastics.

After rigorous research and testing, Jute Fibre emerged as the most effective reinforcement available for use in NACSI panels. Jute is a strong, naturally biodegradable fibre derived from plants in the genus 'corchorus' and has a high tensile strength and low extensibility. After cotton it is the second most important vegetable fibre for cultivation in the textile, automotive and construction industries. Jute is 50% organic plastic (Cellulose) and 50% wood (Lignum). The tensile strength of Jute is 50% stronger and requires 60% less energy to produce than a comparable E-Glass fibre. These structural improvements and cost efficiencies resulted in Jute being selected as the fibre of choice by NACSI Researchers.

Organic plastic resins are used in concert with the jute fibre to constitute the structural component of the NACSI SIP. These organic resins blend well with the jute cellulose to make an even tougher and seamless SIP component. NACSI SIP Organic Resins are produced with the environment in mind. Several petrochemical additives have been replaced by soy and other vegetable components which represents another example of NACSI's commitment to acting green.

Discerning homeowners who understand the importance of environmental sustainability will appreciate having a new home constructed 50% of wood without the need to harvest a single tree. The associated benefit is more oxygen being produced by trees and lower demand on our important forest resources.

Jute also has high insulating properties and when used in the resin matrix as reinforcement, adds significantly to the R-Factor. As an example, the NACSI 3 inch thick panel is over 20% more energy efficient than the standard wood stud R-20 wall section. The energy efficiency with the 6, 9, and 12 inch thick NACSI Panels is even more impressive. Making NACSI SIP housing a very attractive solution for alternative energy applications such as solar, wind, and geo-thermal!

NACSI Researchers have also developed a SIP to replace concrete basements in residential structures. These special application panels are designed not to leak, crack, or get cold and damp. NACSI Basement panels are already insulated and only require a layer of gypsum board to comply with National Housing Act regulations.

The NACSI SIP Advanced Housing System is definitely an Eco-friendly system which offers an attractive alternative to cutting down trees or blasting limestone for the production of cement. An alternative which can increase the amount of oxygen in the atmosphere and help reduce pollution... a positive step in the right direction.

NACSI Panels are tough and when connected together, your new home becomes a monolithic structure. Even those who live in hurricane and earthquake zones can feel confident in their sustainable home.

NACSI Researchers have also designed several 'Flood Zone' housing solutions. People living in and around flood zones now have a viable solution for the threat of flood or dilemma of annual Spring flooding.

Most important of all, NACSI Advanced Composite Housing Solutions are affordable when compared to the costs of standard stud housing systems. It is also important to recognize that the 'cost' of not embracing new and improved Eco-friendly housing systems will be at the expense of our Planet.

Contact your friendly NACSI Housing Agent at your earliest convenience to learn more about the many advantages of a NACSI Eco-Friendly home.

Nova Advanced Composite Solutions Incorporated

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