

Structural Insulated Panels

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Abstract : Structural insulated panels (SIPs) are a high-performance building system for residential and light commercial construction. The panels consist of an insulating foam core sandwiched between two structural facings, typically oriented strand board (OSB). SIPs are manufactured under factory controlled conditions and can be fabricated to fit nearly any building design. The result is a building system that is extremely strong, energy efficient and cost effective. Building with SIPs will save you time, money and labor. Building with SIPs generally costs about the same as building with wood frame construction when you factor in the labor savings resulting from shorter construction time and less job-site waste. Other savings are realized because smaller heating and cooling systems are required with SIP construction. Structural insulated panels (SIPs) are one of the most airtight and well-insulated building systems available, making them an inherently green product. An airtight SIP building will use less energy to heat and cool, allow for better control over indoor environmental conditions, and reduce construction waste. Green buildings use less energy, reducing carbon dioxide emissions and playing an important role in combating global climate change. Buildings also use a tremendous amount of natural resources to construct and operate. Constructing green buildings that use these resources more efficiently, while minimizing pollution that can harm renewable natural resources, is crucial to a sustainable future.

Keywords : high performance, under factory controlled, wood frame, carbon dioxide emissions, natural resources

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