

## **Structural Insulated Panels: Past, Present, and Future.**

### **ABSTRACT**

Since the emergence of construction technology, construction of affordable and environmentally-sensible home at fast pace has brought dream home within the reach. Structural Insulated Panel (SIP) has become a topic of interest among researchers in the recent years. SIP has the advantages of minimal material wastage and labour-savingness whilst having potential to save house builders' time and money as well as retaining the controlled quality. Nonetheless, it suffers from few drawbacks which should be further explored by researchers in its future design. This study present a brief overview of SIP history and common methods and materials utilised for SIP production. It reviews the recent research in the field of SIP by evaluating its application and drawbacks which enable SIP designers improve on SIP. The review of evaluating SIP application and its drawbacks clearly point to the need for further studies to progress beyond the current SIP to an improved one. It might be achieved by replacement of new material with common material used as skin and core of SIP. Considerably more research will need to be done to obtain SIP universal design standard.

**Keyword:** Structural insulated panels; Thermal insulation; Sandwich panel