

(Architects)

Design flexibility makes Structural Insulated Panels the building material of choice

The impact of new-generation SIPs technology (Structural Insulated Panels) on the UK construction industry will be seen increasingly over the next decade.

With Sir John Egan's report, 'Rethinking Construction', still fresh in people's minds, off-site manufacture (OSM) is being seen as the realistic way forward for improving the quality of building materials and techniques.

For architects in particular, the technological advances in both the quality and performance of SIPs panels in recent years will open up many new building options.

This is certainly the view of Siptec-Hemsec, Europe's most experienced manufacturer of SIPs panels, who have seen a recent surge of interest in their product range from all sides of the industry.

Product Manager Peter Bxxxxx attributes this to a combination of high performance modular panels which can be assembled quickly and profitably to create high quality, sustainable buildings.

"For architects," says Peter, "the exciting thing about SIPs is their design flexibility. This stems from their impressive structural strength and Siptec-Hemsec's capability to pre-fabricate features such as porches or bay-windows in factory-controlled conditions."

Made from timber OSB 3 facings with a core material of fire-retardant polyurethane foam, Siptec-Hemsec SIPs can be used as wall, roof or floor panels in buildings of all types up to four storeys high.

Extensive structural testing by UKAS showed that Siptec-Hemsec panels can withstand stresses of over 40 tonnes (more technical details???). In tests by Dow Chemicals on the SIPs insulation performance, they were shown to have U-values of between 0.08 and 0.28 depending on panel thickness (more technical details???).

Siptec-Hemsec SIPs panels also comply with the spirit of the PPG 3 government initiative in that they are thinner than walls built from conventional materials and therefore allow more internal living space. Similarly, SIPs used for roof construction require no trusses which automatically frees up space in the roof area to create a highly valuable 'room-in-a-roof'.

In every way, the quality of Siptec-Hemsec panels is vastly superior to those used in the early days of SIPs 50 years ago. Today, this exciting technology is opening up new building opportunities in a wide range of sectors from private to social housing, and in the education, healthcare and leisure sectors, to name but a few.

PRODUCT CHARACTERISTICS

- Timber OSB 3 (Orientated Strand Board) provides high structural strength.
- Panels are available in thicknesses from 75mm to 245mm, with optional finishes of OSB 15mm and cement particle board.
- Sandwich construction of panels produces similar characteristics to I-Beam.
- The polyurethane core contains a fire retardant to inhibit accidental ignition when tested to BS4735.
- U-values for insulation of 0.08 (245mm thick) to 0.28 (100mm).
- Excellent U-value to panel thickness ratio minimises wall thickness, thus maximising internal space.
- Multiple options for external finishes.
- Air-tight structure drastically reduces energy loss.

For further information contact:

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