



CASE STUDY



Structural Insulated Panels



## Kiln House - Shropshire

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**Client:**

Mr & Mrs Lloyd

**Architect:**

Gideon Lloyd

**Main Contractor:**

Self Build

**Type:**

An English Country Villa

**System:**

SIPCO Bespoke SIP Panels

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## Structural Insulated Panels



## Kiln House - Shropshire

Boasting unrivalled hillside views across the stunning Shropshire countryside, Kiln House is located close to the historic market town of Ludlow. Comfortable yet luxurious, this English country villa, set on 6.8 acres, combines traditional aesthetics with modern building techniques to create a truly unique home.

### Unique Design, Stylish Country Living

The owners of Kiln House set themselves an ambitious design goal, completely refurbishing the original property and building a new extension to transform the property into a spacious, airy, and beautiful country home. Kiln House is an exceptional example of eco-friendly design and performance, created to be sympathetic to its rural surroundings. Unique vaulted ceilings, large open plan rooms, and the use of natural light give the three-storey property a fresh and clean finish, while the use of the latest construction methods ensures highly-efficient building performance. Kiln House is thermally efficient, offering ambient temperatures throughout the year in each room of the property.

### Eco-Friendly Technology for Sustainable Building

Integral to the overall goals of the project was the use of eco-friendly materials and building methods to ensure minimal disruption to the surrounding land and long-term environmental benefits to the property. SIPCO structurally insulated panel systems (SIPs) offered an ideal

solution with their adaptability and high performance. The SIPCO team worked with the clients to determine the best design and bespoke layout for the wall panels to achieve the desired finish. Precision-engineered offsite in advanced manufacturing facilities, SIPCO was able to design, manufacture, and install the SIP panels to exact specifications.

*The transformation of Kiln House is the result of combining eco-friendly design and sustainable building methods to create something unique yet highly-efficient.*

As experts in structurally engineered panel systems, SIPCO was able to advise the client from the early stages of design through to installation. SIPs offer flexibility in terms of finish, allowing property owners to achieve their desired aesthetic without compromising performance. Furthermore, SIPCO SIPs provide cost and performance certainty to assure clients of budget and timescales for self build projects.

## SIP Systems for Bespoke Homes

The use of SIP panel technology in house building comes with numerous benefits. By utilising SIPCO SIP systems, build times can be reduced allowing for less time on site and faster installation. Space-maximising design flexibility allows home builders to create a layout that is truly bespoke and adaptable to their needs and the available land space. With our expert team on hand to provide full technical support, SIPCO ensures the process is as straightforward as possible. SIPs offer durability, performance, and exceptional air tightness. Offering lightweight structural strength, SIPs have an expected 60-year lifespan with proper maintenance and management. Our wall panels are a sustainable choice and contribute positively to the environment by helping to lower CO<sub>2</sub> levels. The system also offers exceptionally low U-values for walls, ranging from 0.21 to 0.10 W/m<sup>2</sup>K depending on the building specifications. SIP roof designs can also deliver thermal performance benefits with U-values in the range of 0.21 to 0.10 W/m<sup>2</sup>K.

*High-quality manufacturing, reduced build programmes, direct-to-site transport, and speedy, simple installation ensure clients can achieve their building goals and enjoy their new homes faster and with total peace of mind.*

SIPCO understand that clients may prefer to use their own contractors for installation and as such offers flexibility with Structural Insulated Panel House Kits. The kits contain all floor joists, support members, and ancillary items, and our technical team can provide advice and guidance to both clients and contractors. SIPCO also welcomes engineers, architects, and builders to visit our production facility to learn more about the benefits and performance of structural insulated panel technology.





## SIPCO SIP Technology

SIPs are fully engineered structural insulated panel systems. Created by joining high-performance rigid polyurethane foam insulation to oriented strandboard (OSB) to produce engineered building components that work together to produce a building product that is predictable, cost-effective, and designed to last. SIPs are environmentally friendly, and all SIPCO systems use timber materials verified during supply-chain to ensure compliance with the PEFC® International Chain of Custody Standard. All materials used in the manufacture and construction of SIPs are recyclable for a more sustainable property. Offsite manufacture allows for complete precision and mitigates wastage. SIPCO can custom-manufacture SIPs, offering a range of cladding options including; ceramic tiles, steel-faced composites, timber, and cementitious fibre boards to allow clients a truly personal finish to their home building projects.

SIPs are lightweight, structurally strong, and do not suffer from compression shrinkage and cold bridging associated with stud walls. SIPCO can also provide further benefits with SIP roof panels, increasing habitable living space and giving the interior of the building a more spacious feel with the option of enhanced natural light via skylights. No requirement for roof trusses allows for maximum space efficiency.

By purchasing from SIPCO, you can be confident in a bespoke, precision-engineered system (SIPs) that is fully BBA compliant for panel manufacture and fabrication and FSC®/PEFC® certified. Our technical team is on hand to provide expert knowledge and guidance at each stage of your self build project.

**For more information on our award winning services:**

**Call: 0151 424 5346**

**Email: [info@thesipcompany.com](mailto:info@thesipcompany.com)**

**[www.thesipcompany.com](http://www.thesipcompany.com)**