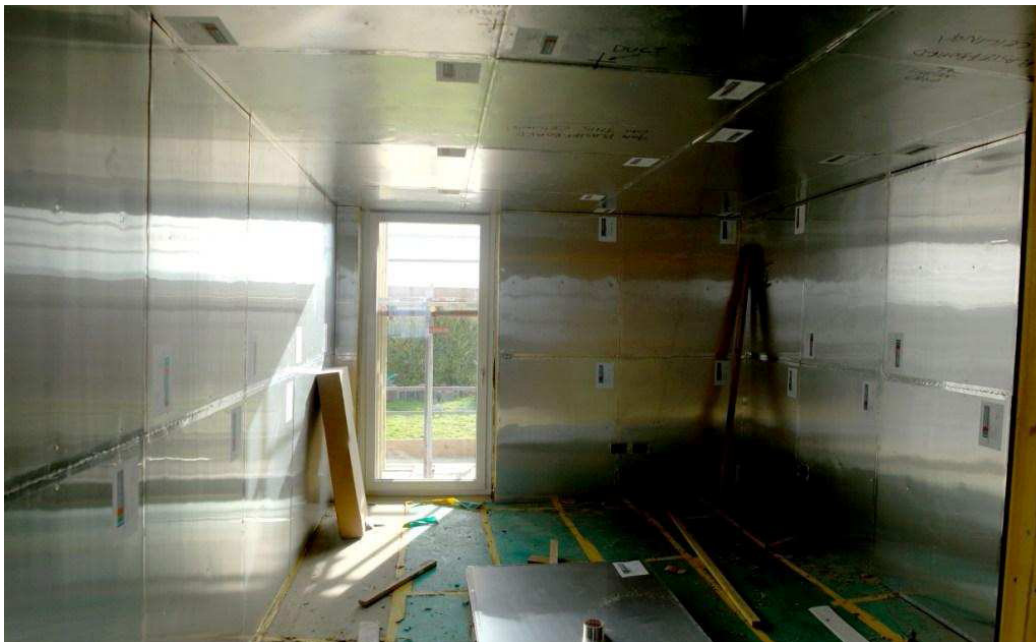


DuPont™ **Energain®**

DuPont™ Energain® adds thermal mass to the sustainable design of “Crossway” by Architect Richard Hawkes



Photos: Courtesy of Richard Hawkes

Genuinely innovative projects demand blue-sky thinking from conception to completion, and advanced materials such as DuPont™ Energain®, can play a crucial part not only on the realization of sustainability goals, but also in enabling adventurous architectural decisions. Crossway is one such vision currently in the process of transformation from the page to a place that embodies architect Richard Hawkes' commitment to both his aesthetic and environmental ideals. So much more than simply a significant project, however, Crossway will become Richard's home.

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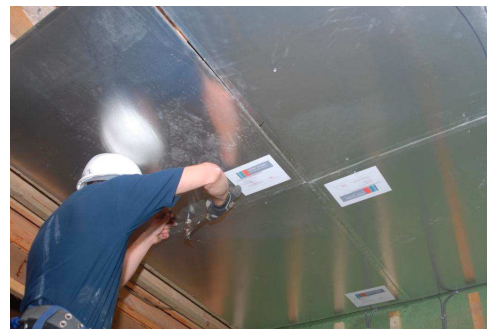
As described on his blog of the build, “Crossway is one of the first zero carbon houses in the UK. The building explores the uniqueness of 'place' as well as harnessing solar energy to generate all its own electricity and thermal energy. The building demonstrates how contemporary design can celebrate local materials and crafts and integrate new technologies to produce a highly sustainable building that sits lightly on the Earth.” An elegantly arched and vaulted construction of responsibly sourced timber, clay tile and glass, the two storey house nestles in the Kent countryside and the build is being filmed for Grand Designs.

Among the carefully considered products Richard has specified for Crossway, is the revolutionary thermal mass panel system, DuPont™ Energain®. Developed as a lightweight solution for low inertia buildings, it works by absorbing ambient heat as room temperature rises (at around 22°), storing it until the temperature drops again (at around 18°), and then releasing it back into the room. DuPont™ Energain® not only improves comfort, but can also make significant energy savings too, while its lightweight structure can influence the choice of both materials and methods throughout the process.

Richard is one of the earliest adopters of this pioneering product. He explains, “The house is heated by passive solar & heat recovery ventilation. The clay tile arch and ground slab are exposed as thermal mass to most rooms in the building. However, two south facing first floor rooms do not have exposed conventional masonry thermal mass within them to help regulate internal temperature; these are the master bedroom and adjacent bedroom. For this reason DuPont™ Energain® is the perfect product to provide thermal mass where it otherwise wouldn't have existed, which helps minimise peak temperature fluctuations and optimise internal comfort.”

DuPont™ Energain® comes in panels of 1.0 m x 1.2 m x 5.26 mm and is installed and sealed behind the plasterboard in walls or above ceiling panels. A total of 127 square metres have gone into Crossway. Says Richard, “The DuPont™ Energain® install was very quick, and because the sheets are smaller than plasterboard it could be done by one person on their own.” The rooms have been installed with temperature sensors and Cambridge University will have a live link to the monitoring equipment for their research projects.

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