PROPERTY CHARACTERISTICS:	
NEW BUILD	
200m² LOW-ENERGY HOUSE	
TECHNOLOGIES USED:	
PREFABRICATED ROOFING	✓
INSULATION	✓

LOCATION: BURLEY, HAMPSHIRE

FEEL GOOD INSIDE

RECTICEL insulation

The project

Client and architect, Nick Lacey, of Nicholas Lacey & Partners, designed the dwelling in the New Forest to take advantage of a 'fabric first' approach. With the peace of mind of 'built in' thermal performance, he could also take advantage of some renewable technology to meet energy and hot water demand.

A coordinated approach to the specification saw Recticel's insulation products used in the floor, walls and roof. Unfortunately, the build fell behind schedule, meaning the intended move-in date of Christmas 2016 was in jeopardy – which is where Recticel's L-Ments® system came in to its own.

Mill Meadow became the first UK project to take advantage of the unique benefits offered by the system – an innovative, lightweight panel design suited to new-build or refurbishment projects.

Specification

Floor:

175mm Eurothane GP (0.11 W/m²K U-value).

Walls:

Ground floor: partial fill masonry cavity wall, 180mm Eurowall Cavity (0.11 W/m²K U-value).

First floor: timber frame, 100mm Eurothane GP between studs and 100mm fixed as outer sheathing (0.11 W/m²K U-value).

Roof:

200mm L-Ments® prefabricated roof system with cedar shingle roof finish and solar PV and hot water panels (0.13 W/m²K U-value).

Benefits

In the short term, utilising a new 'modular' pitched roof element significantly increased the speed of construction and allowed the client to move in to the property on schedule. Recticel's L-Ments® panels feature rigid insulation foamed around timber rafters, plus an integral breathable membrane and counter battens. Fixing the complete roof system in one operation – the entire roof structure was completed ready to receive the external finish in just one day – eliminated time consuming tasks such as cutting and fitting insulation boards, and offered improved airtightness at the same time.

The thermal performance of the L-Ments® roof panels also contributes to the long term benefit of adopting a fabric first approach and installing high levels of insulation throughout. The near-zero carbon standard dwelling will enjoy low heating demand and energy consumption for its whole life, minimising carbon emissions and making its own contribution to the UK's carbon reduction targets.