NUDURA Project Profile

Rumour, South West Devon

It's no rumour but a proven fact that a 200m²+ house in south west Devon has an annual energy bill which costs virtually nothing! Situated at the confluence of the River Tavy and the Tamar, this beautiful country home is aptly named Rumour, as it's not visible from most elevations. The design of the front elevation is carefully faceted so to convey a curved impression on the eye. The building's design successfully complied with planning restrictions in this Tamar Valley AONB.

Built from scratch using the NUDURA ICF system, this 'replacement dwelling in the countryside' sinks partially into the surrounding hillside. A roof constructed of Op-Deck, concrete and fibreglass finished with astro-turf helps the building maintain a constant temperature, whatever the weather.

To meet regulations, structural engineer, David Glastonbury first needed to justify the elements of the design would comply with UK building standards. The OpDeck concrete is used as diaphragm to support the angled beam across the structure. The building sits on insulation and all areas of possible bridging are insulated both internally and externally.

The Silcock's aim was to build a solar energy fed house in Devon's maritime climate with the aim of zero input for water heating and space heating. They avoided heat pumps due their power requirement.

NUDURA ICF has delivered an energy efficient, high mass house with internal block walls while 17 tons of floor screed assist in moderating the temperature changes. Both east and west walls are covered with earth which helps maintain a constant temperature of between ten and 12 degrees.

Although the project took five years to complete, Peter and Helen were both able to retain full-time jobs while working as NUDURA trained installers in their spare time.

PROJECT STATISTICS

Location:
South West Devon
Size:
200m² plus conservatory
Start Date:
2009
Completion Date:
2014

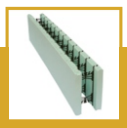
Products:

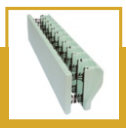
ICF System:
NUDURA ICF & Op-Deck

CONSTRUCTION TEAM:

Self-builders & Designers:
Peter and Helen Stock
Engineer:
David Glastonbury, Jenkins and Potter (retired)
ICF Distributor:
The Fell Partnership





A construction professional himself, Peter Silcock who runs property preservation specialists, Active Services said:

“Helen and I wanted a good house to live in which would be a good fit with our inside/outside lifestyle, as weather permits. We already knew we wanted to build in ICF because of its proven reputation on energy efficiency and the comfort levels that it delivers.

So, Helen and I visited most other UK ICF manufacturers and suppliers. We concluded that NUDURA is the best available on the market as it's definitely the best thought-through, complete system including reveal details, corbel pieces and wall attachments. It's certainly the strongest as it needs to withstand the rigours of poker vibration to eliminate any air bubbles in the concrete.

“Our home achieved an SAP A rating of 97 out of 100 and the only improvement recommendation was that we install a wind turbine, which wouldn't have gone down too well with the neighbours.

“We wanted a real fire to lend the right ambience in winter. It took some research to find one which should deliver very low heat to room. Ours gives 2kw to the room and releases more to the 2500 litres of hot water storage which lasts around five days due to thermal efficiency.

“During the winter, Rumour's temperature usually drops one degree overnight, maintaining a constant temperature of about 22 degrees. In the first 12 months, we turned the underfloor heating on a handful of times. We get sorry for the heating and turn it on every few months so that it circulates the water.”

“Thanks to Nudura's Sound Reduction Index of 51, when we're indoors, we need to monitor the external temperature and look at the trees before going out. The house is so silent, we won't know if a gale's raging outside.”