On form

Roger Bisby converts to Insulated Concrete Formwork

Like many other builders I have seen polystyrene 'lego' blocks in various forms at trade shows, and on programmes such as Grand Designs, but had never seen them being used on a real site by real builders. It wasn't so much that I regarded them as toys just that it takes a leap of faith to believe that a bit of polystyrene can do something as serious as build a house. I suppose it really boils down to the fact that it looks like child's play.

Surely building, by its very nature, has to be a bit more painful, it needs more tools than a handsaw and a spirit level? Am I beginning to sound like Kevin McCloud?

This, then, is my road to Damascus moment, where all my doubts are washed away. Having spent half a day on site with some builders from AMVIC Wall Systems, who specialise in teaching people like you and me how to build with Insulated Concrete Formers (ICF), to give them their proper name, I am now a believer.

The light stuff

Having watched the guys build a small block of flats in South London I was amazed just how easy and pleasant the work was. Even carrying them up the drive from the lorry was a piece of cake. I asked them to wear the hard hats for the photographs because the Editor of Professional Builder gives me grief whenever I bring back pictures of builders without hard hats but, seriously, how much damage would one of these lightweight blocks do if it did hit you on the head? For most of the day the guys worked away without the need for power tools, heavy equipment or anything else we associate with life on a site. In fact, you could go to work by motor bike.

My chief concern was how the panels were stopped from spreading. I have seen really strong shuttering burst so I couldn't see how this would hold the head pressure. The answer is that the panels have 'T' bars moulded into the material to stop it spreading. Rebar is then placed into the plastic channels and the concrete is poured and vibrated. It needs to be propped only to keep it upright – the form work is self-supporting. If you have never built with ICF then you need a bit of basic instruction but this would take one day. After that you should be well away. If it rains or snows there is no need to stop the build. The modified polystyrene is such a good insulator that it holds the heat generated by the concrete setting and protects it from frost damage. It only really occurred to me in late December, when all the sites in Britain had ground to a halt, that there was another very good reason for using ICF. The worst weather you could have would be high winds.

It would be very easy for bricklayers to turn their hand to using this material and it could be rendered or clad with face work or weather boarding, in which case the whole build could be a job for a carpenter. In many ways it sits nicely between masonry and timber frame but, unlike timber frame, it can be used from below ground right up to the roof, and has very good load bearing qualities.

MORE INFORMATION

AMVIC WALL SYSTEMS LTD
Tel: 0800 756 6399
Email: info@amvicwallsystems.com