

## ► Green oak frame construction

Oak frame buildings are not the cheapest in comparison to other types of frame. They are a status symbol that require a relatively generous budget. However, the cost is matched by the high quality that runs through the design, selection of materials and care taken in the manufacture and assembly. The modern oak framed house and the variations on this theme take the practices and principles of carpenters from the middle ages and re-interpret them using 21st Century factory prefabrication methods. Chunky beams, columns and rafters are used, assembled in structural bays, with slotted and dowelled joints just like the traditional frames assembled hundreds of years ago. The building is clad either by filling the gaps between the posts with insulated panels, or covering the whole structure with a cladding such as tiles, timber boards, render or brick.

### Features of an oak frame construction

- Authentic traditional appearance*
- High quality construction*
- Structure is expressed as part of the design*
- Weathers naturally – no need for finishes*
- Very durable - no preservative needed in most cases*
- Suited to 'open plan' design*

'Green' oak, is so called because when relatively freshly cut it is fairly easy to cut and shape. Once felled, the timber begins to harden and become impervious to water. After about 18 months to two years, it has become so hard it is resistant to insects and also it is difficult to cut or sink a nail into it. As the green oak matures, it dries out and begins to shrink, twist slightly and even develop small splits. No one should acquire a green oak house unless they accept that this is part of the character of the material and a key part of its charm. The frame is made in a factory, either by hand or machine, each element designed to precisely fit with the others. A system of carpenters' marks is used to identify how the separate parts are to be assembled and exercise that is usually carried out in the factory before the frame is dismantled and delivered to site. Once the building is weather tight, the frame usually needs to be sand-blasted or cleaned with an acid. The colour of the frame changes from cut wood to a silver grey once the frame is exposed to the weather. It then gradually darkens in colour over the years that follow. Although thanks to its hardness and strength, oak needs no further treatment, it is



possible to darken the external timber artificially using dye mixed with teak oil. Inside, it can be waxed, oiled or stained according to taste. Beeswax is a popular choice, turning the wood an attractive honey colour. There are also options for the way that the surface of the exposed timbers are treated. ►