

## PACKAGE HOME SYSTEMS

Almost invariably these revolve around a 'Timber Frame' package where the frame is manufactured off site and usually erected to the shell stage by the suppliers.

### OPEN PANEL SYSTEM

Most timber frame companies use an Open Panel system. These are structural panels forming the inside load bearing leaf of the cavity wall, which are manufactured in factory conditions and then brought to site and fixed together to form a rigid structure. They are made from softwood timber framing over which a structural sheet material such as plywood or orientated strand board, known as the sheathing, is fixed with a vapour permeable but waterproof membrane, fixed to the outside.

They are delivered open on the inside, hence the name. Windows and door frames are usually fixed on site. Once the house is weathertight, and the electrical and plumbing carcassing has been completed, the insulation is installed between the studs before a vapour proof barrier is tacked up followed by the plasterboard.

### CLOSED PANEL SYSTEM

The closed panel system is favoured by some of the Scandinavian style frame companies. The panels are delivered fully furnished and insulated with the services in and the windows and doors already fixed. The advantage is an airtight structure with on site

work reduced to a minimum. The disadvantage is the fact that minds have to be made up regarding services and outlets at a very early stage of the design.

### AISLE FRAME SYSTEM

The Aisle Frame system uses massive structural timbers to provide the main load bearing support with the open panels, thus free to act independently. This system is often employed as single skin construction, particularly where a rendered finish with timber plants is required.

### GREEN OAK FRAMING

Green Oak Framing uses a massive oak skeleton that is then infilled with urethane panels and made waterproof by a system of perimeter trims and water bars before being rendered on the outside leaving the timbers exposed. Some exponents also clad the outside, with Structural Insulated Panels (SIPs) leaving the oak timbers exposed only on the inside face. These Structurally Insulated Panels (SIPs) are made by bonding rigid foam insulation in a sandwich between boarding. They are increasingly being utilised in their own right to provide the load bearing wall element of a package deal house.



### TIPS

- Make sure you know what is and isn't included in the package deal.
- Never modify a structural element without first consulting the suppliers.
- Make sure that if the breather membrane is damaged it is repaired immediately.
- Check when and what payments are required and co-ordinate these with your cash flow.
- Tile the roof before commencing the outer brickwork skin to allow for movement.
- Wherever possible try and ensure that your package supplier erects the timber frame on site. This way you know the materials are all correct and constructed within prescribed tolerances.