

Kingspan house

Your Complete Self Build Solution





At **Kingspan House** we take the stress out of the Self Build process for you

That's because at Kingspan House we've been building Energy Efficient homes for years, so we don't just understand Building Regulations - we understand people.

As a company, we have helped thousands of Self Builders all over the UK & Ireland realise their dreams for an Energy Efficient home without ever having to compromise on comfort, quality or design.

Our unique construction methods are based on the same advanced techniques developed for our multi-award-winning Lighthouse project, which saw Kingspan redefine the boundaries of modern housing design and zero carbon living.

Today, we apply those same technical specifications and construction methods to every home we help create.

The Complete House Solution

Kingspan House is a rapid build construction method that will see your home insulated and weather tight within 2 weeks.

Our advanced build solutions assure the design performance of your new home is achieved in reality and not just on paper.

Utilising a fabric first approach, Kingspan House uses its Ultima™ System to provide a highly insulated and airtight building fabric that when coupled with our extensive range of low carbon and renewable energy technologies - provide you with all of the essential components required to achieve an **A** Rated and Carbon Neutral performance.



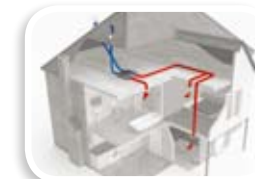
Solar Systems



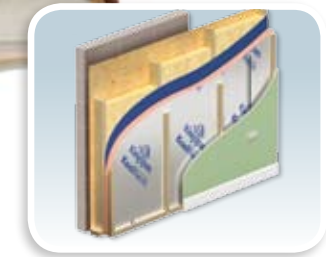
Roofing Systems



Open Web Floors



Air Recovery System



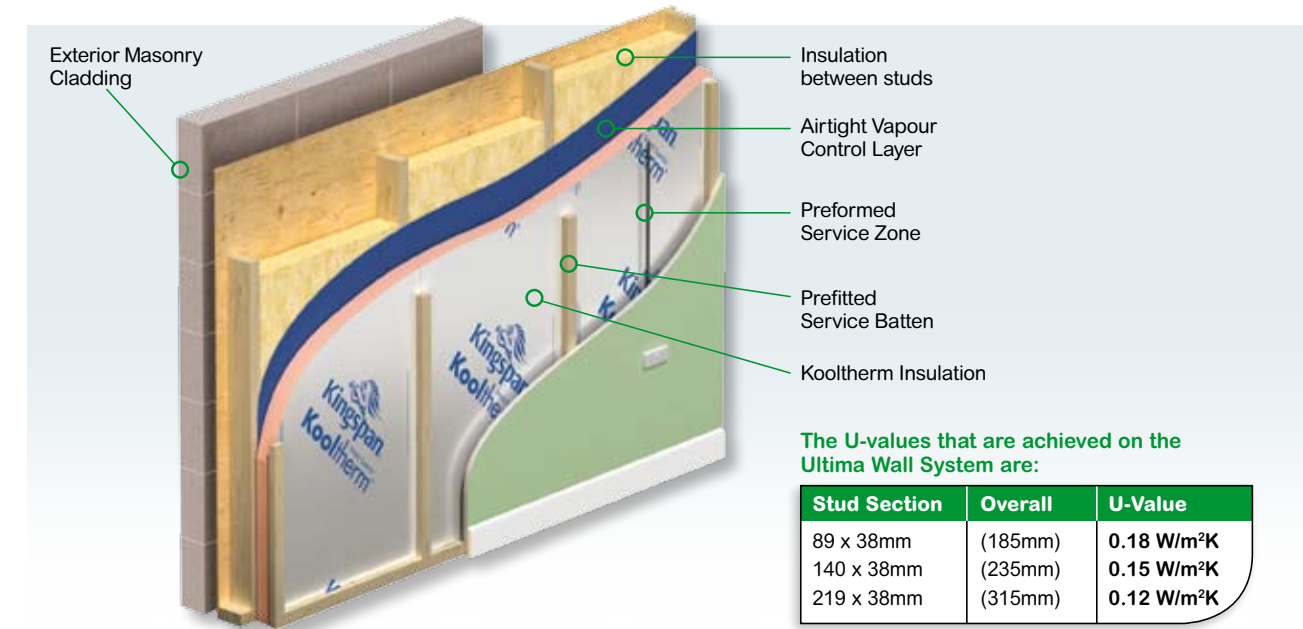
Ultima™ Wall System



Run your new home for as little as £1 a day.
Send us **your plans** and we'll show you how.



Ultima™ Wall System



Developed to deliver superior thermal performance, the Ultima Wall System not only meets the requirements of the Building Regulations, but exceeds them. Factory manufactured, the Ultima Wall System is quick and easy to install - reducing labour costs and build times.

- Exceeds Building Regulation by up to **250%**.
- U-values **0.18 - 0.10 W/m²k**.
- Factory applied Insulation with Airtight Membrane and Service Void.
- Eliminates Cold Bridging, Air Leakage and Drafts.

Performance Testing

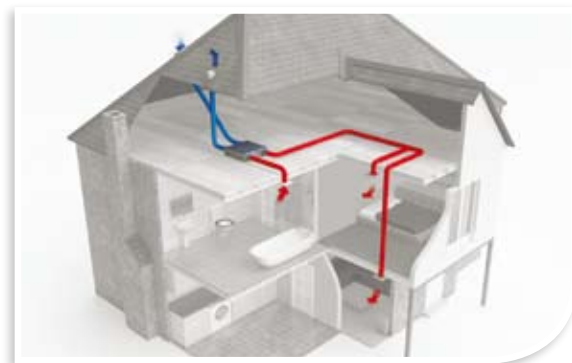
At Kingspan House we never take anything for granted - so in addition to our pre-delivery energy assessment, we carry out on-site Blower Door tests to guarantee the air-tightness of our Ultima System. We also use thermographic imaging to demonstrate the elimination of Cold Bridging.



Turn your plans for an **A** Rated dream home into a reality with **Kingspan House**.



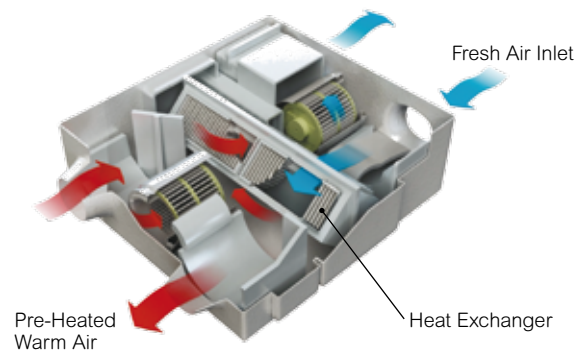
Air Recovery System



To make a home Energy Efficient, it has to be airtight. However all homes require some form of ventilation.

The Kingspan Air Recovery mechanical ventilation system not only ventilates your home, but through an in-built heat exchanger - it also actively recovers heat that would otherwise be lost during the ventilation process.

- Recycles up to **91%** of heat lost through ventilation.
- Maintains stable temperature and humidity levels.
- Incoming air is filtered providing superior air quality.



Kingspan Air Recovery - Mechanical Ventilation with Heat Recovery (MVHR)

Roofing Systems



At Kingspan House we have a roof solution for every home. Our prefabricated truss and roof panel solutions are designed to maximise the utilisation of your roof space - allowing you to make the most of the roof over your head.

- Extensive range of highly insulated and airtight roofing solutions.
- U-values to **0.10 W/m²K**.

Solar Systems



At Kingspan House we utilise solar thermal vacuum tube technology that has been specifically developed for use in Northern Europe, which makes full use of the available daylight to heat your homes hot water.

- Provides over **70%** annual hot water **FREE**.
- Photovoltaic electric also available.

Engineered Flooring Systems



Our extensive range of Engineered Flooring Systems include an open web option that facilitates simple integration of services such as ducting for heat recovery ventilation units, plumbing pipework and electrical cabling.

If you prefer a concrete floor finish, our Self Levelling Liquid Screed combines enhanced acoustic performance with the easy integration of underfloor heating.





Building an Energy Efficient home is not just about saving you money and the environment - **it's the law!**

Building Regulations in Northern Ireland

The Northern Ireland Building Regulations

(Amendment 2006) introduced new regulations for the conservation of fuel and power - raising the standard for Energy Efficiency new homes must meet.

Under these Regulations, new homes must consume less energy and have lower carbon emissions. This makes them naturally cheaper to run. In order to demonstrate compliance with the standards set by these Regulations, the following criteria must be met:

- Achieve the Target Emissions Rate (TER), using SAP, the Governments Standard Assessment Procedure for the energy rating of dwellings.
- Minimum Acceptable U-value Standards.
- Prevention of Cold Bridging & the limitation of Air Leakage.
- Air-tightness Testing ($15\text{m}^3/\text{h}\cdot\text{m}^2$ at 50Pa assumed for untested dwellings).

At **Kingspan House**, our experience in overseeing and managing your Self Build process means that you don't have to worry about the legal complexities of the build process itself, as we will do all that for you - guaranteeing you complete peace of mind with our Energy Performance Assurance Scheme.

Commitment to Zero Carbon Housing

Kingspan has always been at the forefront of Energy Efficient building solutions and have made significant investment in Zero Carbon Research and Development as illustrated in the Kingspan Lighthouse built at the Building Research Establishment (BRE) Innovation Park which became the first house to achieve the Code for Sustainable Homes highest Level 6 Rating.

The Code for Sustainable Homes, introduced in late 2006 to plot the pathway towards Zero Carbon Homes by 2016, measures the sustainability of a new home against categories of sustainable design, rating the 'whole home' as a complete package using a 1 to 6 star rating system to communicate the overall sustainability performance of a new home.

Kingspan Lighthouse facts:

- The first Certified Code for Sustainable Homes **Level 6** House.
- The UK's first Certified **Carbon Neutral** House.
- Annual running cost of less than **£38** for heating, lighting and hot water.

The lessons learnt during the Lighthouse design and construction phases now form the core of the Kingspan House offering to the Self Build client.



Why choose **Kingspan House** as your complete Self Build solution?

Do you know about Northern Ireland's Low Carbon Homes Scheme?

Under the Low Carbon Homes Scheme you could **avoid paying rates** for up to 5 years. So depending on where you live - that could save you up to £5000.

The Low Carbon Homes Scheme is a new rate relief scheme which aims to encourage the building of low and zero carbon homes in Northern Ireland.

The new scheme will provide full rate relief for:

- Up to 2 years for a new low carbon home.
- Up to 5 years for a new zero carbon home.

What is a low or zero carbon home?

Whether low or zero carbon, the home will be highly insulated and also be airtight. The basic concept is to 'build tight and ventilate right', which is the key principle of the Kingspan House build method.

Low carbon homes will also require high efficiency heating systems, with solar hot water and mechanical ventilation with heat recovery. Zero carbon homes will also need to incorporate a means to produce electricity, such as Solar Photovoltaic Panels (PV). All these essential components are part of the Kingspan House offering.

Qualify for the Low Carbon Home Scheme

To qualify for a rebate under the Low Carbon Home Scheme, your home must have:

- CO₂ emissions for the home must be 44% less than the target CO₂ emission rate required by the building regulations.
- The space heating requirement of the house should not exceed 23 kWh/m²/year.

Qualify for the Zero Carbon Home Scheme

To qualify for a full rebate under the Zero Carbon Scheme, your home must meet the following conditions:

- The heat loss parameter of the dwelling must be no more than 0.8 W/m²K (*this is a measure not only of insulation but also the elimination of cold bridging*).
- The dwelling CO₂ emission rate and the CO₂ emissions from the dwelling-house over the course of a year must be zero kg/m²/year (*achieved by creating a Low Energy demand house with sufficient renewable energy inputs to deliver Carbon Neutral performance*).

By choosing **Kingspan House**, you're choosing a high performance building envelope with integrated Renewable Energy features that is designed to meet the Zero Carbon Homes Scheme requirements. With Kingspan House as your building partner, you will not only benefit from low energy running costs over the life of your home, but you will also enjoy rates relief for up to 5 years.

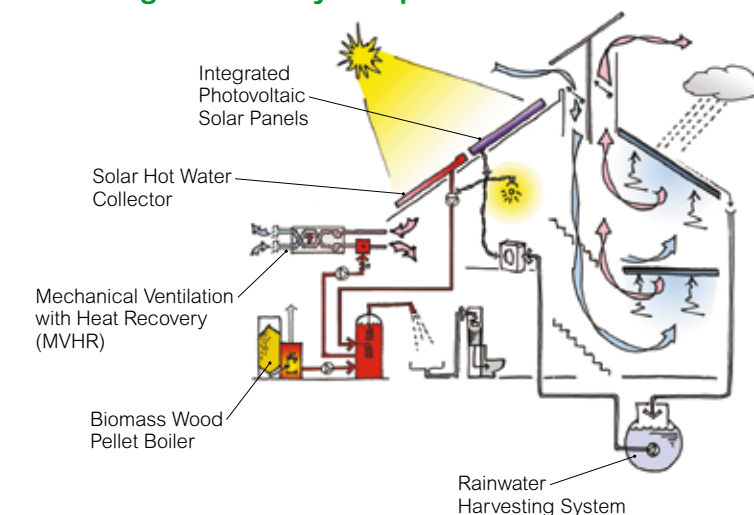
To find out more about the Low Carbon Homes Scheme, visit:

www.nidirect.gov.uk/low-carbon-homes.htm

In addition to outstanding Energy Efficiency:

- Kingspan House offers Expert Technical Advice that guarantees your house plans meet the **current** and all **future** revisions to the Building Regulations.
- Kingspan House offers certainty on **costs**.
- Kingspan House offers certainty on build **duration**.
- Kingspan House will have your new house weather tight within **2 weeks** of arrival on site.
- Kingspan House provides a **guaranteed** Rated Building Energy Rating.

Lighthouse key components



The lessons learnt during the design and construction of 'The Lighthouse' form the core of the Kingspan House offering to the Self Build client.



Self Build Project Management Made Simple



At **Kingspan House** we take the stress out of the Self Build process for you.

Whether building your home using a building contractor or by direct labour, design & build project management can be a daunting task and expensive risk. Indeed - research shows that over **80%** of people who have built their own home admit that they would never do it again.

The most common mistake made by Self Builders is that they underestimate the build duration and the cost of their project at the outset. This is primarily due to a lack of building knowledge and experience. Mistakes made during the construction planning process will undoubtedly impact on the performance of your finished home due to a combination of inadequate construction process and specification knowledge coupled with poor quality construction.

As your build partner, Kingspan House are on hand to ensure you don't make these mistakes by simplifying the entire build process for you - with our factory manufactured Self Build solution.

Self Build with Kingspan House

- **Regulation compliance designed into the package:**
 - Expert Technical Advice.
 - Energy Performance Certification (EPC).
 - Complete Building Control Package preparation.
- **Simplified self build process:**
 - Certainty on Construction Duration.
 - Certainty on Cost.
 - Up to **60%** of the materials required, being sourced from one supplier.
- **House sealed and weather-tight usually within two weeks of the kit arriving on-site.**

Building for a Sustainable Future

Timber is the only truly sustainable construction material and using wood from sustainably managed forests is the best way to reduce your homes carbon footprint.

That's why at Kingspan House we only use Timber and Engineered Timber Products from certified sustainable sources carrying either **FSC** or **PEFC** accreditation.

You can save almost a tonne of CO₂ for every cubic metre of wood you use instead of other building materials.





Run your new home
for as little as £1 a day.

Send us **your plans**
and we'll show you how.

Kingspan Century Limited
Clones Road, Monaghan,
Co. Monaghan, Ireland.

tel: 028 375 11211

tel: +353 (0) 47 38400

e: sales@kingspanhouse.com

www.kingspanhouse.com

Registered Office: Kingspan Century Limited (T/A Kingspan House), Clones Road, Monaghan, Ireland.

© Kingspan, Kooltherm, Kingspan House, Ultima and the Lion Device
are Registered Trademarks of the Kingspan Group plc.