econeKt

THE INTELLIGENT BUILDING SYSTEM

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Why Self-build?

> “Self-building is now thought to make up around 12% of homes built in the UK annually”

At this point, you are likely thinking about a self-build home, or the wheels may already be in motion, with a plot of land already in your ownership; you have just received planning permission or are in the process of being awarded this.

There has been a considerable increase in people looking to build their own homes in the UK. Self-building is now thought to make up around 12% of homes built in the UK annually, presenting significant benefits to the end user. These advantages can include: creating a high-quality home at a cost-effective price, constructing a home for life, and designing a home unique to the owner.

You may also be keen to create a home with sustainability considerations at its core, and that is where Econekt excel, particularly when you build to a low energy or Passivhaus standard.

Who are Econekt, and why should we be your choice?

Econekt are a UK-wide team of self-build specialists at the forefront of this exciting movement. Early adopters in the industry, we are a team that is genuinely passionate about self & custom builds and their benefits to the end user along with the environment. Wherever you are in the UK, we ensure that we treat each project with a personal and local touch.

The Econekt building system allows you to have the freedom to design and build your home the way you want. It offers substainability, speed and flexibility when compared to more traditional construction means.

We ensure a personable and transparent relationship is built right from the start and keep you informed at every stage of the project.

A genuinely flexible building system

Aside from being a market leader in self-building, the Econekt building system is one of the most versatile around. Being able to assist at each and any point of your project, Econekt can offer everything from self-build financing, supply and assist right through to a complete structural shell service.

Should you require an insulated foundation slab or an entire structural shell, we can easily carry this out. We can liaise with your other contractors and leave the build ready for the next stage to be complete.

Izodom Insulated Concrete Formwork (ICF)

Econekt is proud to be the exclusive UK partner for Izodom Insulated Concrete Formwork (ICF) products. Their quality, thermal performance and detailing as part of the Econekt system are unrivalled. They provide a simple to detail thermal-bridge-free system suitable for all structures, from basements to multi-unit developments.

With Passivhaus and low-energy construction seeing a significant increase in recent years, Econekt aim to be at the forefront of this with their building system.

Econekt can easily meet Passivhaus standards, with U-values ranging from 0.21W/m2K to 0.1W/m2K achieved through a single standard walling element and the ability to achieve Passivhaus levels of air tightness at the structural stage due to the monolithic concrete core of the ICF.

Our Products

ICF WALLING SYSTEMS

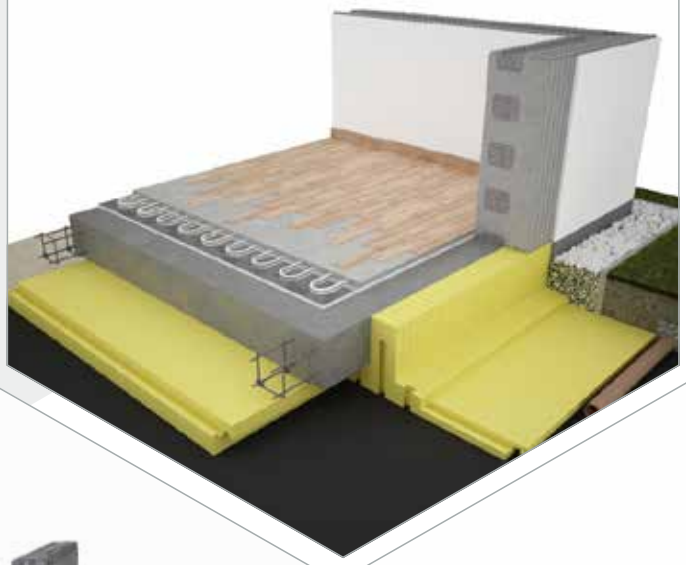
Econekt currently offer three ICF walling systems, from low energy to Passivhaus Plus.

Low Energy

Ensures meeting requirements for UK building standards and beyond relating to insulation and energy efficiency. While this is the thinnest choice in insulation, it still removes thermal bridging at all key junctions and insulates lintels, reveals and window jambs. Whilst providing air tightness by the concrete core and completed u values of 0.18W/m2K or less.

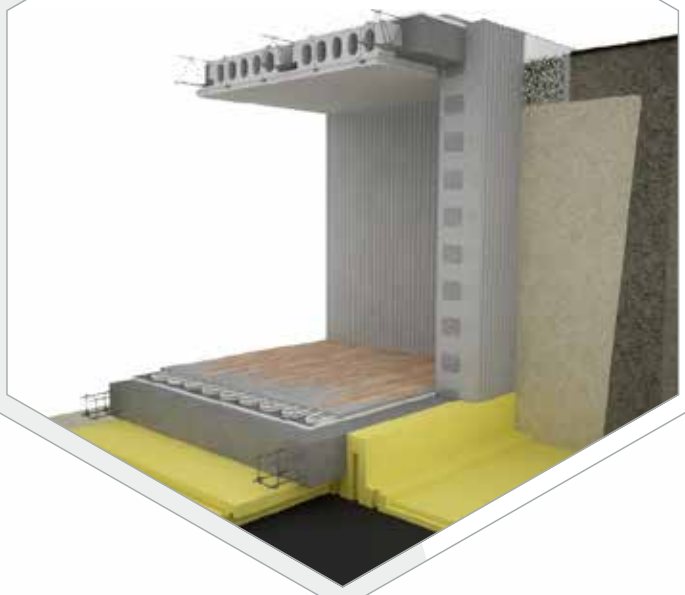
Passivhaus

Perfect for those projects focusing on energy-efficient solutions building to Passivhaus principles but not necessarily the desire to achieve certification.



Passivhaus Plus

Ideal for those projects aiming for full Passivhaus certification.



Insulated Foundation Slabs

Many projects also require Insulated Foundation Slabs as part of the build. These are incorporated in place of traditional continuous strip footings and foundation walls or, more simply, un-insulated ground-bearing slabs.
Insulated slabs are typically cast at the construction site and reinforced with steel mesh or fibres. Izodom foundation slabs

can easily achieve the floor shape of any home due to the manufacturing process, providing a pre-cut, pre-formed foundation slab layout to suit anything from simple boxes to curved or split-level ground floor layouts. Each component is cut to order and installed on-site by a tongue and groove jointed single depth (150mm or 250mm) base board and dovetail jointed perimeters. It's like piecing together a large jigsaw.

Econekt offer two insulated foundation slabs as standard.

Low energy 150mm Passivhaus 250mm

That said, the foundation slab concrete depth can be adapted at production to suit the project engineer's design depth, building loadings and varying ground conditions. Providing a completely bespoke insulated foundation system.

Econekt can also tailor the perimeter edge thickness to whichever building system is used, for example, ICF, timber frame or more traditional construction methods – either increasing or decreasing the insulation depth to suit accordingly.

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01 Design

We offer you a full architectural and engineering design service, taking your ideas from dream to tangible reality with our in-house team.

02 Financing

If you are not funding the project directly, you will likely need help with self-build financing. We help with this through our partners at BuildStore. They are the UK's leading self build mortgage brokerage and specialise in mortgages and finance designed specifically for homebuilding projects.

BuildStore fully understands the complex and specialist experience required when financing a self-build house. It has built solid relationships with lenders and created more than 40 exclusive mortgages designed specifically to solve the common issues individual homebuilders face.

03 Supply and Assist

Supply Econekt ICF building system components alongside site assistance at crucial points of the project, including concrete pours. One of Econekt's build team attends the site to work with the project build team to look at setting out, corner construction, lintels, and work with bracers and concrete pours.

04 Basements

Complete installation of waterproof structural ICF basement shells. Econekt is Basement Waterproofing Association (BWA) accredited, and they can provide an Insurance Backed Guarantee (IBG) with all basement services to provide a simple certificate for mortgage or structural warranty completion. This service can be carried out and left for the superstructure to be built following the

work or incorporated into the build process, providing flexibility in how your house is completed.

05 Insulated Foundation Slabs

Taking the plot from an empty site and providing access to it. Following this, the below-ground drainage would be installed, sub-base prepared with a blinding layer before installing the insulated foundation formwork and placing the reinforced concrete slab. It could also be that the complete groundworks and installation service is not required, so Econekt are very flexible in finding a level of service to suit here.

06 Full Structural Shell

Complete construction of the structural shell – groundworks, foundations, ICF walls, windows, roofing, and external finishes, or a range of options within this scope.


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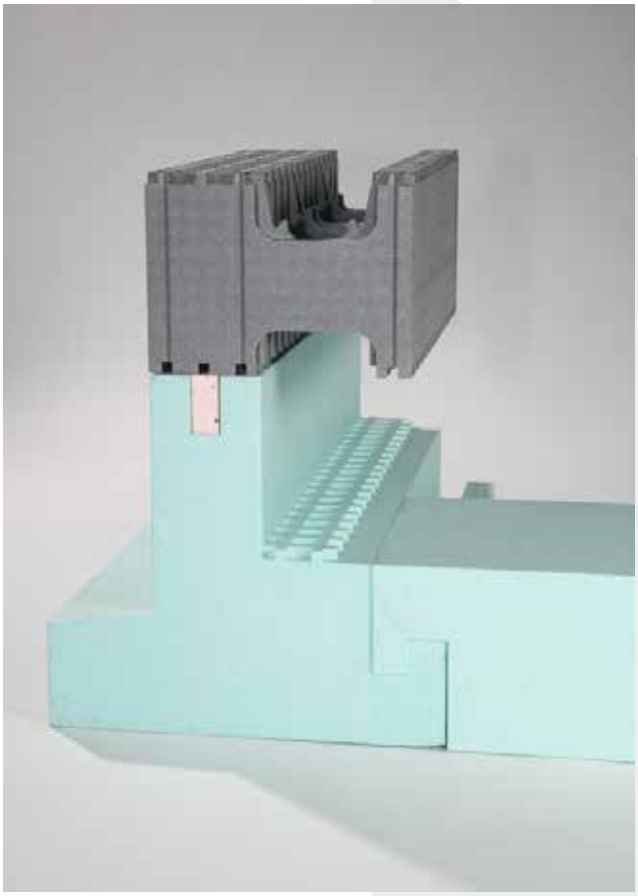
Key Information

01 Airtightness
02 Thermal Bridge Removal
03 Speed of Build
04 Reduction in Energy Bills
05 Noise Reduction

01 Airtightness

A real advantage of ICF is the level of airtightness it guarantees due to the monolithic concrete core formed as part of the structural build.



02 Thermal Bridge Removal

Thermal bridges are the points at which heat tries to escape or cold enter a home – typically where the walls meet either the floor or the roof, also around windows, doors, and cable or pipe openings. The Econekt build system has been developed to remove thermal bridging from all significant junctions.

This ensures the structure will be free from drafts and allows consistent temperature control within an air-tight dwelling.

03 Speed of Build

The construction process of ICF is simple and not very labour-intensive. As the ICF blocks are made from lightweight expanded polystyrene (EPS), it allows for a much smaller team to carry out the build with no heavy lifting plant requirements - compared to a home built with more traditional building materials - and as the build progresses, multiple processes of a more conventional build are replaced by the simple process of ICF building and concrete pouring.

ICF construction is also not weather dependent and, as such, is not affected by weather conditions such as snow or rain. This ensures that the build timeline can be kept on schedule all year round.

04 Reduction in Energy Bills

ICF home occupants will often see a significant reduction in their energy bills. This is due to the high level of both insulation and airtightness around the structure. Some homes, dependent on the mix of fabric first and alternate energy used in the build, could be found to use little-to-zero energy.

05 Noise Reduction

Homes built with ICF typically benefit from greater internal comfort aided greatly by external sound reduction. The two EPS panels act as sound barriers and dampen sound vibrations. The high mass of the completed walls, once filled with concrete, provides an even more significant sound reduction when combined with the dampening effects of the EPS.

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Let's Chat

Our specialist team are always on hand to assist with any enquiry. You can contact us at info@econekt.co.uk, or call us at 0844 225 1680.

www.econekt.co.uk