# thermohouse

the low energy building system



















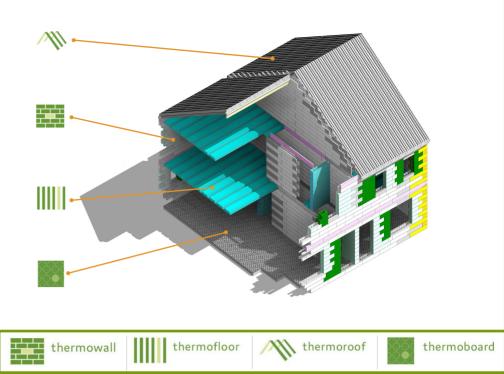




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## Why Should you use Thermohouse?

Whether you are large housebuilder, independent property Developer, Contractor, or a self-builder, you have many methods of construction available to choose from, so why should you consider Thermohouse?

- Thermohouse is considered a **Modern method of construction (MMC)** it is also an **easy and simple** way to build in the modern world. Which increases speed and in turn **reduces cost** over the project.
- The System is Manufactured & Supplied from our Factory in Ireland and distributed throughout Ireland & The UK.
- The systems consist of 3 key components which make up the structure of the house as shown in the diagrams above Walls, Floors, Roof. In addition to these we also offer EPS floor insulation which can add further thermal value to the floor design. When used as a complete system for your build you will be building an airtight thermal envelope which will also eliminate all cold bridging concerns.
- Where traditional methods of building have not really changed for many years, to meet the changes in Climate, our living & working habits, and our usage of energy, the Thermohouse build works well alongside other energy source systems to provide a Low Energy Home. Using the Thermohouse system can help you achieve Passivhaus standard as well if required.
- The lightweight and easy to handle system allows you to build with less Labor on site, reduced Plant, reduced site running costs, all due the speed and ease in which you can build.
- The Thermohouse system **exceeds Part L of the Building Regulations**. It is also recognized as 'Standard form of construction' by the council of mortgage lenders. It also has testing and certification data for performance considerations required for new house builds including **Thermal, Fire, & Acoustic** performance.
- Whatever the design objective is from an architectural point of view, the system is **flexible** enough to achieve most designs including curved or angled walls & roofs. It can also be used for Housing, Apartment blocks & Commercial buildings up to 6 storey in height.
- Our in-house team has experts with indepth knowledge of the system, and can assist you at each stage from design, quotation, order placing, logistics, site support, technical & practical advise all for yourself & the builder carrying out the install.





# FEATURES & BENEFITS

- Complete System Walls, Floors & roof all combined to provide continuous insulation
- Design Fabric 1st approach to entire envelope
- Size Options A range of options available to suit wall depth and U-Value required
- **Building Standards** Exceeds Building Standard Part L requirements
- Energy Efficiency Build Low energy homes to last
- Acoustic Performance Impact & Airbourne Acoustic tested system
- Build Speed Up to 60% faster than traditional methods
- Airtightness Superior Airtightness exceeding building regulation requirements
- Finance Recognized as a 'Standard form of Construction' by CMI
- Flexibility Ability to design and build curved & angled walls & roofs with ease.
- Handling Lightweight materials that are easy to handle, and move on site manually
- **Environment** Manufactured using environmentally friendly raw materials
- Cold Bridging Eliminate all thermal bridging risks at design stage
- **Budgeting** Plan for fit-out knowing what the structural costs will be
- Savings Potential cost savings found across all factors of the build process

**Materials** – Only ICF/EPS, Steel Rebar, Concrete, Propping required to achieve entire structure

**Labour** – Reduce need for large teams and multiple trades at structure stage

**Plant** – Light weight and reduced waste means no heavy plant or excessive waste removal costs

**Pre-Lims** – Speedy build, along with less labour and plant required will reduce time on site and associated costs

Quality – The only ICF to use our own designed steel plate bridge, increase strength and reduce damage



Our walls, floor and roof components can be used individually, or combined to form an **airtight thermal envelope**.

The full system forms a monolithic concrete structure, fully wrapped in insulation, which is extremely airtight and free from any cold bridging.

These eco buildings can be designed and finished to any desired aesthetic. Curved or rectangular, timber cladding or brick – Whatever you imagine your dream home to be, with Thermohouse it is achievable.

#### **PROJECT TYPES:**

- Residential new build
- Offices
- Retirement home
- Student

Accommodation

- Care Home
- Day care & Nurseries
- Clinics & Surgeries
- School
- Retail Units

**View our Thermohouse** 

module explainer

videos online



Fire Performance is the ability of a particular structural element (as opposed to any particular building material) to fulfil its designed function for a period of time in the event of a fire. The Thermohouse system meets these requirements when built.

- The system is made using Flame Retardant Polystyrene which will only melt over 100°C
- It has a low heat release, while Exterior & Interior Finishes provide additional fire barriers up to 30 minutes each side.
- Concrete ensures structural integrity remains in the event of a fire & is classified as Class A1 (Non-Combustible). No risk of fire spread through Cavity and voids between properties

Acoustic: The Thermohouse system is tested and meets the Building Regulations Approved Document E requirements for both Airborne & Impact acoustics.

**Thermal**: New Part L 2022 building regulations will require more **energy efficiency** considerations from the design stage. The gap between as designed and as built will become more smaller as these considerations will need to be thought of and meet the new requirement in preparation for the future building standard. Thermohouse system is able to achieve some of the highest thermal performance which can be up to Passivhaus standard if required.

### The U-values achieved by the Thermohouse system

Component	Part L 2022 requirement	Thermohouse Range
Walls	0.26 W/m <sup>2</sup> K	0.20 - 0.10 W/m <sup>2</sup> K
Ground Floor	0.18 W/m <sup>2</sup> K	0.16 W/m <sup>2</sup> K
Roof	0.16 W/m <sup>2</sup> K	0.15 W/m <sup>2</sup> K
Airtightness	<5 m3/hr/m2	<1m3/hr/m2

The Above U-Values are an indication of what can be achieved using our products, What is quoted will be based on customers individual requirements, to suit their project.

# Certified by

















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Request a call back & free quote:

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If you've got any questions about our low energy building system, we would be delighted to hear from you. We will offer a no obligation consultation and prepare a quotation for you free of charge. One of our friendly team will be in touch with you soon to see how we may support & guide you with your project.