

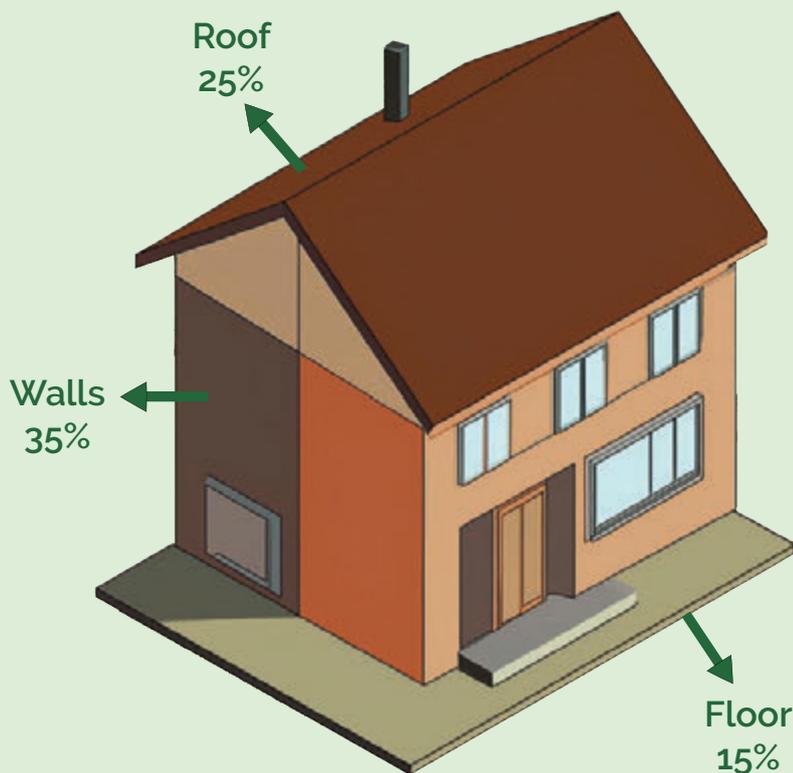


# Internal Wall Insulation

**Warmer Home. Lower Bills.**  
[www.fairway-energy.co.uk](http://www.fairway-energy.co.uk)

# Why Do You Need Internal Wall Insulation?

Internal wall insulation is an effective solution for improving the energy efficiency of your home. Did you know that **homes lose about 35% of their heat through the walls**. Therefore, by insulating the internal walls, residents can reduce heat loss, save on bills, and enhance the home environment. This method is particularly useful for older buildings with solid walls that lack cavity walls. Fairway Energy can **install your internal wall insulation within approximately 2 days**, depending on the size of the property. Also, all work is **100% free for eligible households**. To be eligible, you must be in receipt of a means-tested benefit and live in a property with an EPC rating of D or below. Get in touch with Fairway Energy today to find out if you're eligible and start enjoying a warmer home and lower bills.



When temperatures are lower or the wind is stronger, more heat is lost. This is why it is important to insulate your home to protect you and your family from cold in the UK climate.



"The team were a pleasure to have in our home, they were always open to explaining what was happening, they always ensured that at the end of each day they left the work area as clean and tidy as possible."

## Warmer



A well-insulated home retains more heat. This means that your home stays warmer for longer, and you need to use less heating. This results in savings on your energy bills.

## Cleaner



A well-insulated home with proper ventilation creates cleaner air quality, helping with respiratory health conditions and improving overall health.

## Quieter



A well-insulated home helps to soundproof your living space, creating a more calming and quieter environment.



# What Is Internal Wall Insulation?

Internal wall insulation involves adding insulating material to the inner surfaces of external walls. This creates a thermal barrier, preventing heat from escaping through the walls and keeping your home warmer during winter and cooler during summer.

The Internal Wall Insulation (IWI) System used by Fairway Energy consists of, glass mineral wool insulation batts, used for their thermal and acoustic benefits. It is a breathable insulation material and is combined with extruded polystyrene (XPS) bonded to oriented strand board (OSB) for structure. This system is specified in the ECO4 scheme delivery guidance set by the regulator Ofgem.

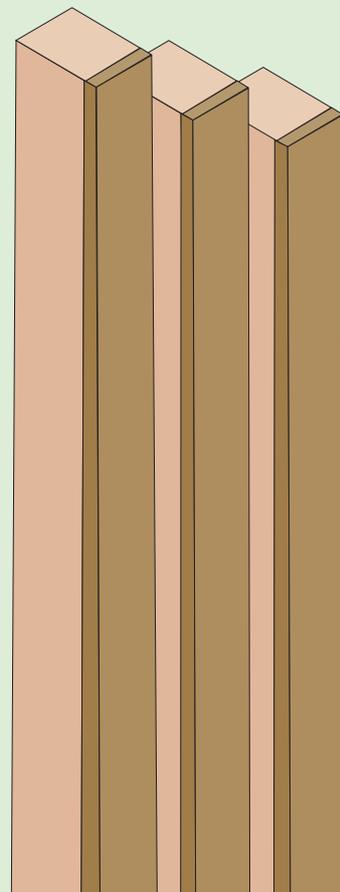
## Extruded Polystyrene (XPS) Bonded to Oriented Strand Board (OSB) Frame

### Extruded Polystyrene (XPS)

- A rigid, closed-cell insulation material that provides excellent thermal performance.
- High moisture resistance, making it ideal for reducing thermal bridging and preventing damp issues.

### Oriented Strand Board (OSB)

- A strong engineered wood panel that provides structural support.
- It helps with secure fixings for finishes like plasterboard.



# Glass Mineral Wool Batts

## 1. Glass Mineral Wool (Fiberglass)

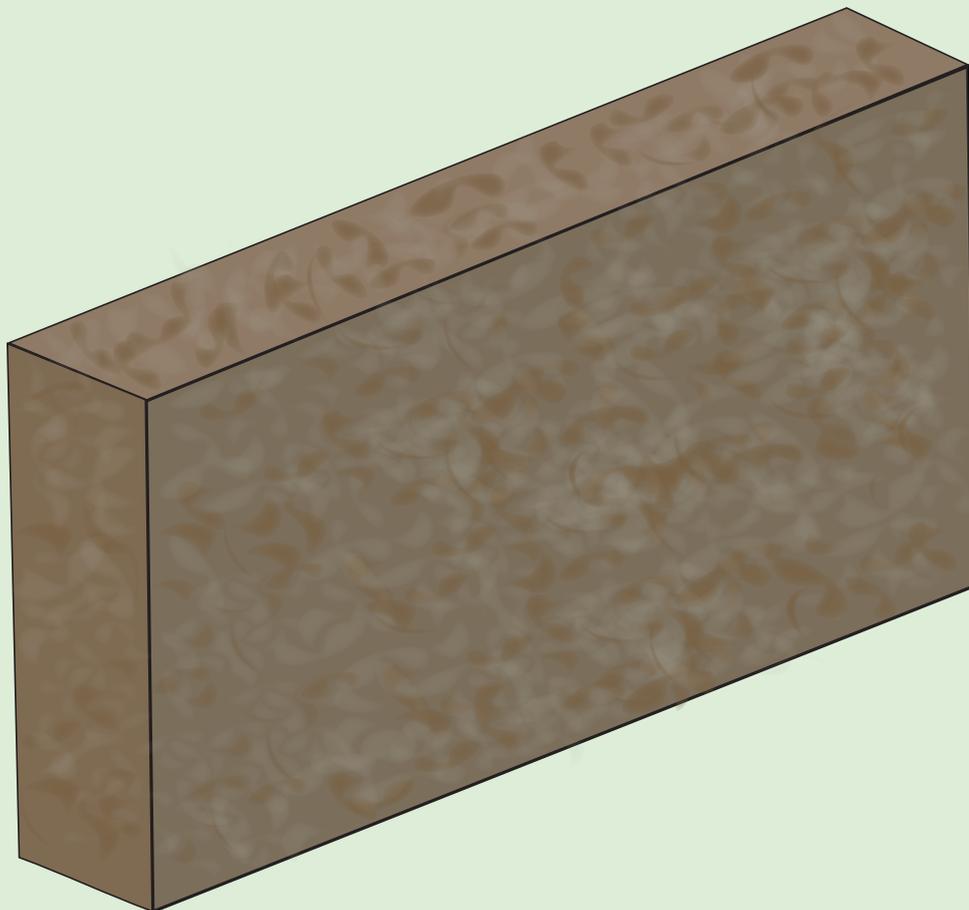
Made primarily from silica sand and recycled glass bottles. The fibres are spun from molten glass and formed into insulation batts.

## 2. Specialised Binder Technology

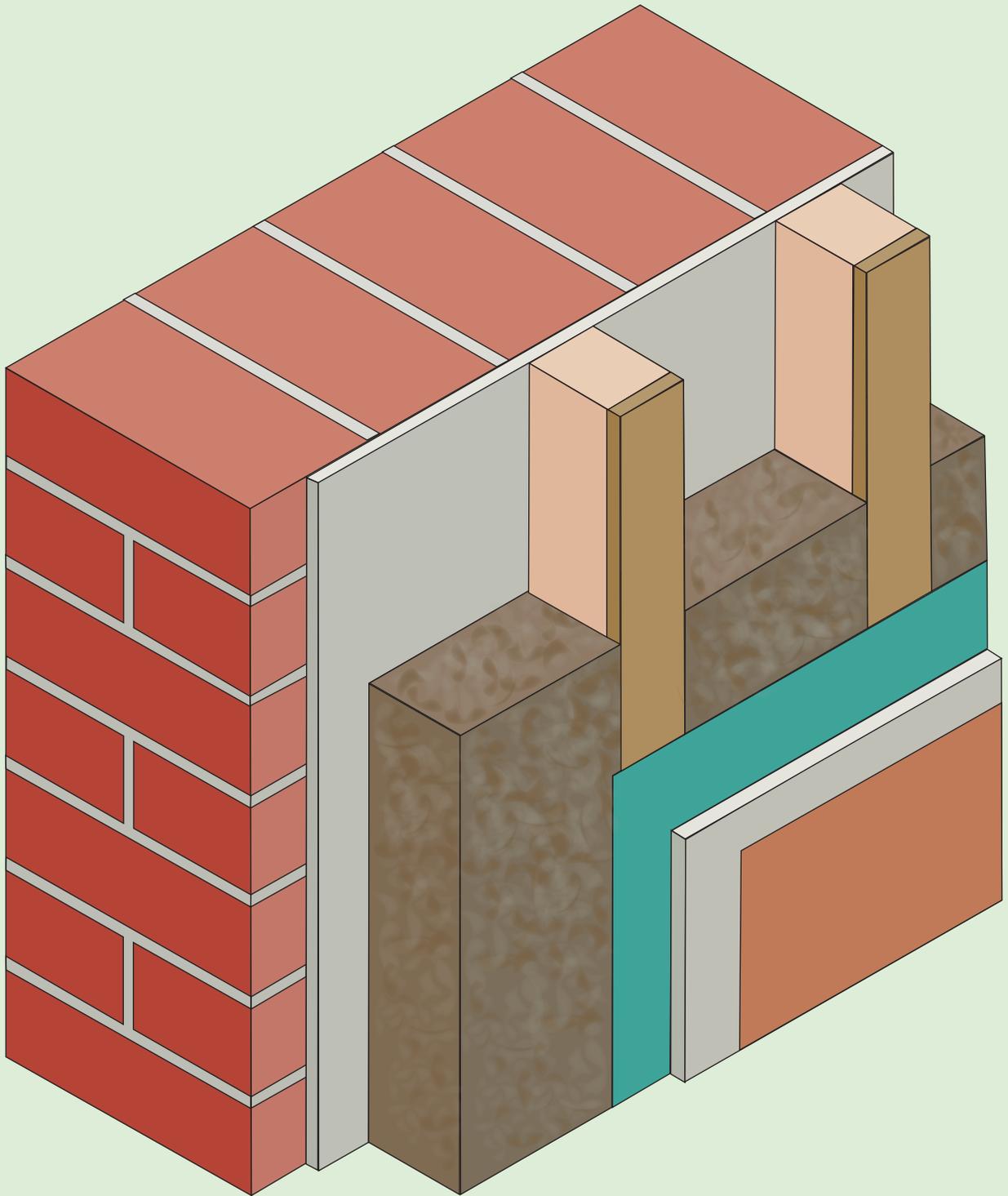
A formaldehyde-free, bio-based binder used instead of traditional phenol-formaldehyde resins. Derived from rapidly renewable materials, reducing the environmental impact. Provides a soft feel, low odour, and improved indoor air quality.

## 3. Water-Repellent Treatment

Helps maintain insulation performance and prevents mould growth. The fibres are treated to be moisture-resistant, reducing the risk of water absorption.



# Function In The IWI System



- The XPS core acts as a thermal break, preventing heat loss through traditional timber or metal studs.
- The OSB strip allows for fixing and adds structural integrity.
- The Glass Mineral Wool Batts play a crucial role in thermal, acoustic, and fire performance. It is used in combination with XPS + OSB to enhance the overall insulation effectiveness.
- Vapour control layer used to cover the insulation and prevent moisture build up.
- Plasterboard covers the insulation material and serves as the final internal finishing layer, covering the insulation system and providing a smooth surface.
- A smooth plaster finish is applied to the wall ready for paint or wallpaper.

Together, these layers create an energy-efficient and moisture-resistant insulation system.

## **Certifications of the IWI System used By Fairway Energy**

- British Board of Agrément (BBA) Certified, ensuring compliance with industry standards.
- BRE Green Guide A+ Rating for sustainability.



"The men were all very clean and made sure every evening the house was left as clean/clear as it was on their arrival. I was surprised with how clean they left it! Even the plasterer covered all the furniture and carpets, sawing was all done out side and they hoovered and mopped when leaving."

# How Is Internal Wall Insulation Installed?

Under the ECO4 scheme, the installation of internal wall insulation must adhere to the highest standards to ensure optimal thermal efficiency and long-term durability. All installers participating in the ECO4 scheme must be Trustmark registered and comply with Ofgem's delivery guidance. At Fairway Energy, we follow a meticulous process to install internal wall insulation in your home, ensuring quality, compliance, and maximum energy savings. Here's how we do it:



1. Identify the cold external walls in your home and prepare the room. This may include removing fixtures or repairing damaged walls.



2. Glass Mineral Wool Insulation material is added to the wall inside a newly built XPS bonded to OSB frame for structure.



3. A vapour control layer is used to cover the insulation which prevents moisture build up.



4. Plasterboard is used to cover the insulation material and serves as the final internal finishing layer, covering the insulation system and providing a smooth surface.



5. Finally, a smooth plaster finish is applied to the wall ready for paint or wallpaper.

# The Benefits of Internal Wall Insulation



"Fairway Energy sorted everything from the initial survey to the completed job in super fast time which has been great for my daughter to have proper heating in these freezing conditions. I would highly recommend them and can't thank the whole team enough for their amazing work."

# 1. Energy Efficient and Saves Money

Of course, energy efficiency is an important consideration in a modern home. Ultimately, by reducing heat loss through the walls, a stable indoor temperature can be better maintained, decreasing the need for constant heating or cooling. This leads to substantial savings on energy bills.

# 2. Consistent Temperature

Internal wall insulation improves the overall comfort of your home by creating a more consistent indoor temperature. As a result, during the winter, it helps retain heat, ensuring your home stays warm and cozy. Whereas, in the summer, it prevents excessive heat from entering, keeping your home cooler. Overall, this improved thermal regulation enhances the living experience for all occupants.

# 3. Noise Reduction

Internal wall insulation can provide sound insulation too. This helps to reduce external noise, such as traffic or neighbourhood sounds, creating a quieter and more peaceful home. Therefore, this is particularly beneficial for houses located in busy towns or cities.

# 4. Moisture Control

Internal wall insulation can also help control moisture levels within your home. This is because, proper insulation, along with ventilation measures, prevents condensation on the walls, reducing the risk of dampness, mould growth, and structural damage. As a result, this contributes to a healthier indoor environment and prolongs the lifespan of your property.

# 5. Increased Value of Your Home

Many potential buyers look for homes that are well insulated and therefore, this improvement can also increase your home's value with a better energy efficiency rating. Unquestionably, energy-efficient homes are in high demand, and having proper insulation can make your house more appealing to potential buyers.





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