

HOMEOWNERS GUIDE TO INSULATION



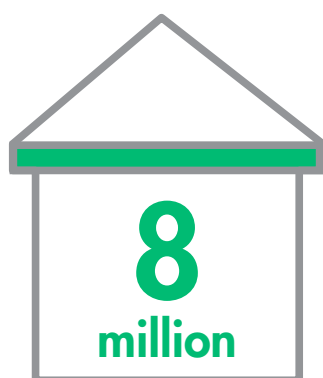
WHAT YOU NEED TO KNOW



UK HOMES REMAIN ONE OF THE MOST INEFFICIENT IN EUROPE

The energy efficiency of UK housing needs to be significantly improved.

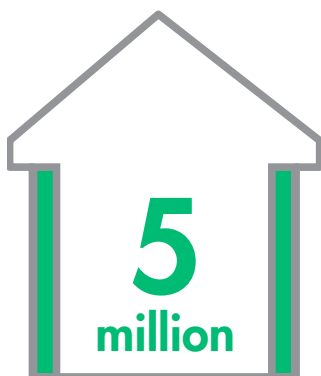
Only around **15 per cent** of UK existing homes were built after 1990, meaning that the majority of homes were built before the introduction of standards for insulation and energy performance.



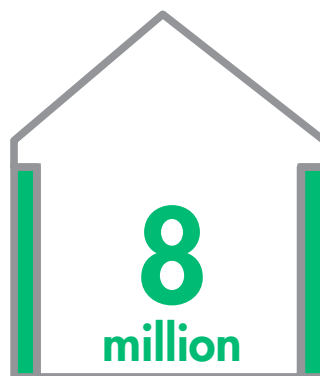
Lofts that require full
or top-up insulation



Floors that
require insulation



Un-insulated
cavity walls



Un-insulated
solid walls

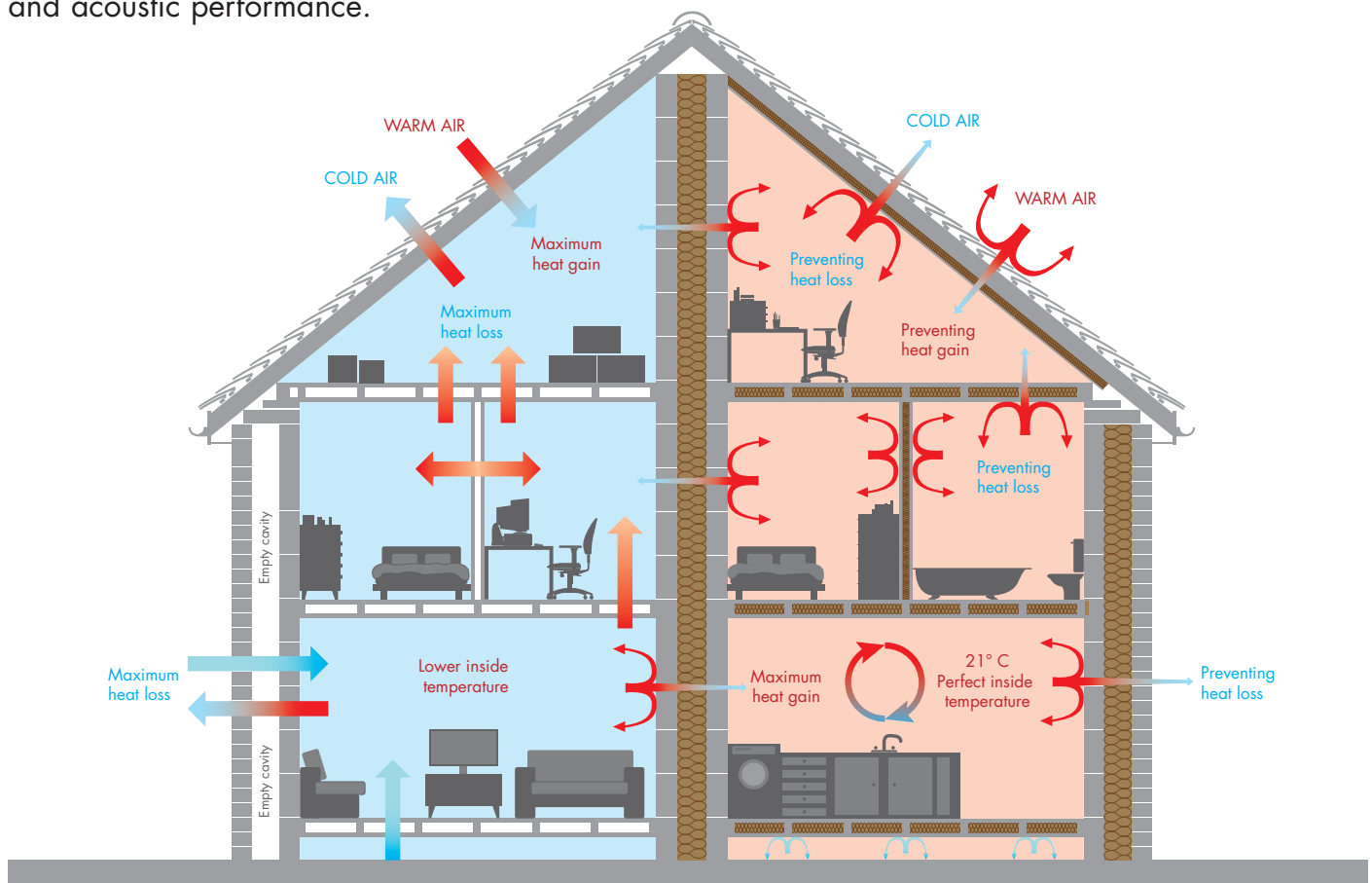
WHAT ARE THE BENEFITS OF USING INSULATION IN YOUR HOME?

Insulation plays a huge part in providing a consistent temperature in a home all year round, keeping it cool in summer and warm in winter.

There are various types of insulation - Glass and Rock Mineral Wool rolls and slabs, PIR, PUR and Phenolic rigid insulation boards, Polystyrene (XPS and EPS) insulation boards - all of which have different benefits that will suit users based on their project.

Heat always moves from areas of high temperature to those at a lower temperature, which is why, in the cold external temperatures of winter, the warmth inside a building will try to escape through walls, windows, roof and floor, and the opposite effect will happen in summer.

Because of its nature, Mineral Wool insulation provides the best combination of thermal, fire safety and acoustic performance.





HOW TO SPOT IF YOUR INSULATION NEEDS UPGRADING

Insulation is largely invisible, hidden away in our roofs, walls and floors.

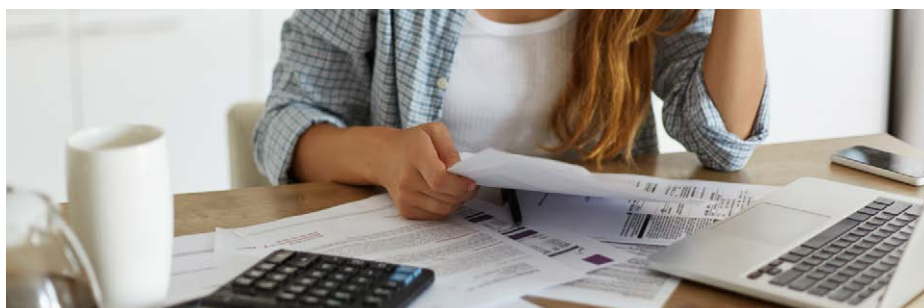
However, if you spot any of the following symptoms in your home, it could be a sign to update and improve your insulation.



Cold and draughty spots, or rooms that quickly lose heat or become too hot.



Noise travelling through the walls and floors.



Higher than average energy bills*

*The expected average dual energy bill in the UK in 2022 is £164.25 per month (£1,971 per year) according to Ofgem



BENEFITS OF MINERAL WOOL INSULATION

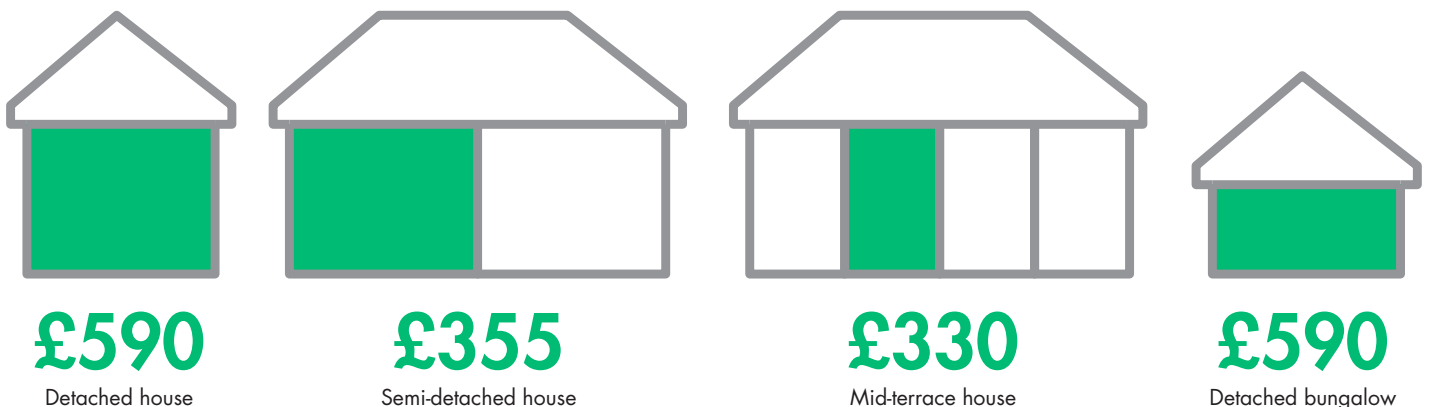
Mineral Wool provides proven real energy efficiency performance

When we're cold most of us turn up the heating, but did you know that without the right insulation, **you could be losing up to 50%** of that energy through your roof, walls, and floors? It also means you're wasting money on your bills as the heat escapes.

A well insulated home will help you use and lose less energy, reducing your environmental impact and saving you money.

Just as we should check that we're on the best tariff, we can lower our bills with the right insulation.

The Energy Saving Trust estimates the correct insulation saves the following cost on your energy bill each year;



Mineral Wool insulation is a poor conductor of heat, meaning that warm or cold air won't transfer through the material resulting in a consistent temperature inside the building. It does this by having a spider's web type structure inside of the material with millions of small air pockets that catch any heat or noise transfer from external sources, making it one of the most efficient ways of insulating any property.

It is also easier to install as the fibrous structure of the material fills the space; meaning that any imperfections in installation are negated and therefore give a better real performance.

BENEFITS OF MINERAL WOOL INSULATION

Mineral Wool has the best Reaction to Fire Classification

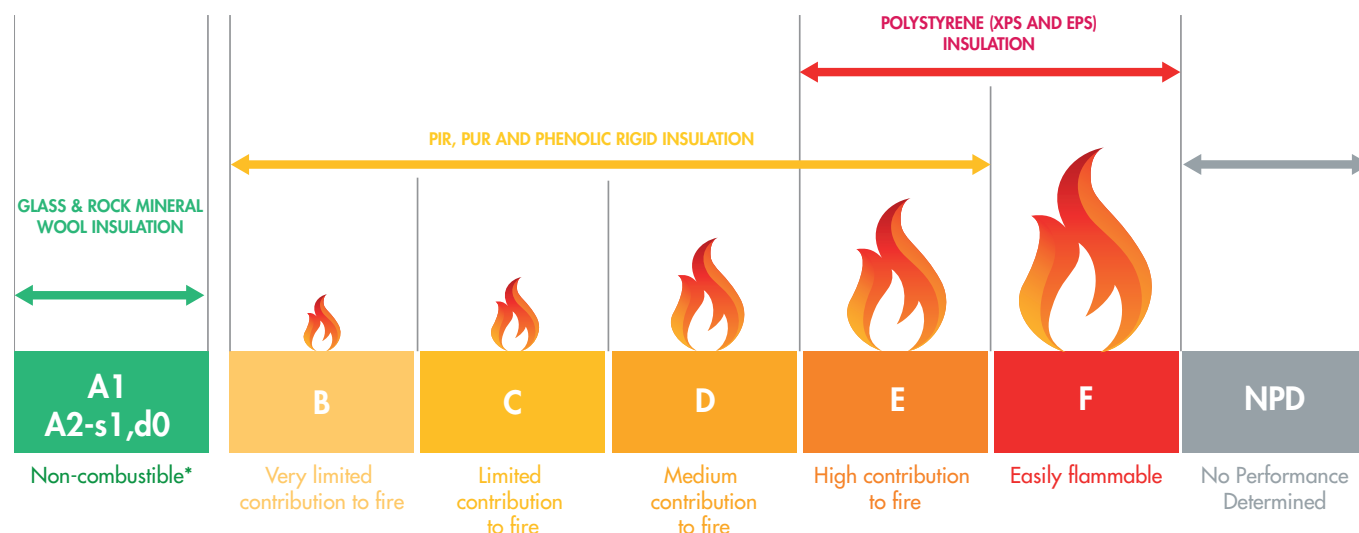
Combustible insulation in your home can cause a fire to develop more quickly with devastating effects. Different insulation materials have different fire performances.

Non-combustible insulation will not contribute to the development or spread of a fire, and therefore can give you more time to escape.

All insulation materials are tested and given a Euroclass reaction to fire classification which demonstrates how a material will contribute in the development stages of a fire. The test covers factors such as combustibility, flame spread and smoke release.

Knauf Insulation Mineral Wool products achieve the highest possible Euroclass A1 or A2 reaction to fire classification, meaning they will not contribute to the development or spread of fire, should it occur.

TYPICAL INSULATION PRODUCT EUROCLASS REACTION TO FIRE CLASSIFICATIONS



*As set out in changes to the building regulations 2010 which bans the use of combustible materials, limiting the use of materials to those that achieve A1 or A2-s1,d0 on buildings in scope of the ban (as defined in regulation 7(4))

Notes: Other classifications of smoke and flaming droplets within A2 are classed as limited combustibility. (Not shown here as no insulant falls in that category).

Flames are illustrative only.

NPD = No Performance Determined. In this instance no performance is declared and information regarding reaction to fire performance is unknown.

Illustration for guidance only. It is crucial to check the actual Euroclass reaction to fire classification of a product before use.



BENEFITS OF MINERAL WOOL INSULATION

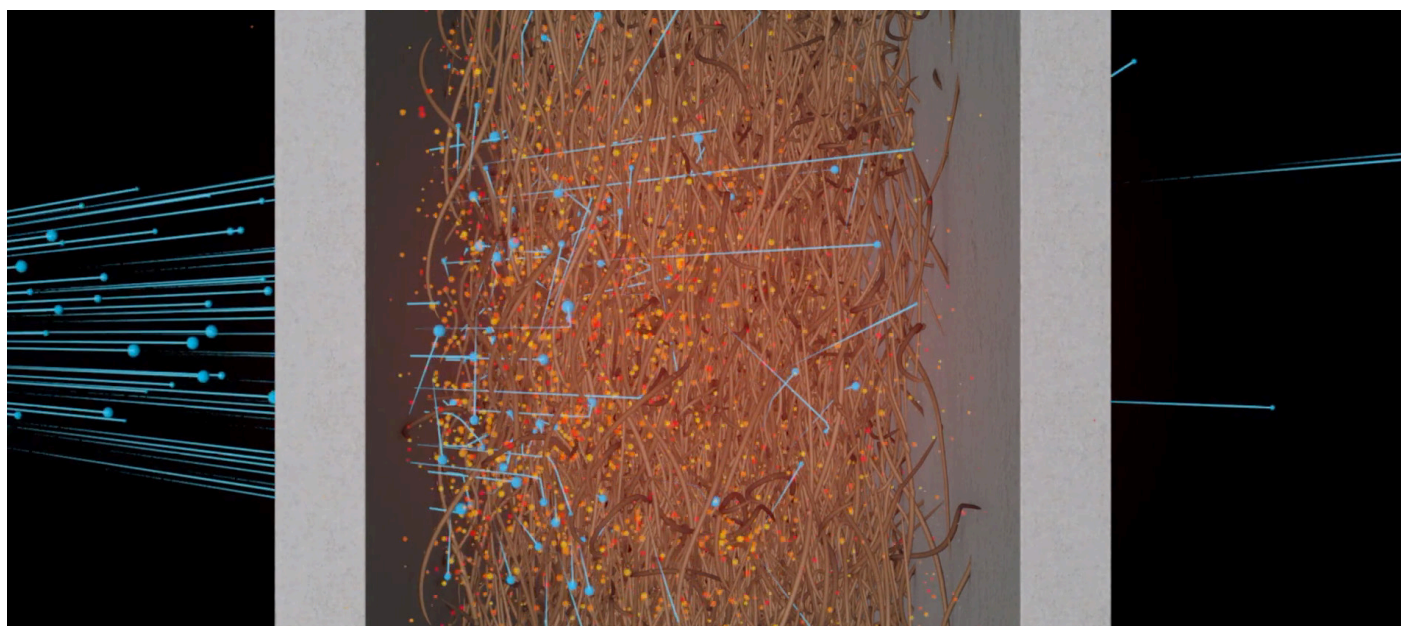
Mineral Wool offers great acoustic performance

If you're having some building work done at home, it's a good idea to check what insulation your builder is using. Building regulations specifies that insulation should be used in external walls and separating elements. But there's a strong case to go beyond this regulatory minimum to consider acoustics in every building component.

The right insulation in your roof, walls and floors will reduce the noise transmitted from room to room, house to house, or just from the outside. However, some types of insulation won't improve noise transmission.

Outside noise entering the home can have a serious impact on health and well-being. Whether you've got noisy neighbours or live near a busy road or airport, noise pollution can increase stress and negatively affect your overall quality of life.

Glass and Rock Mineral Wool products are the perfect solution for noise reduction over other insulants (i.e. rigid insulation boards) due to their unique fibre matrix. Sound waves become trapped within the fibres, meaning less sound energy passes through increasing the amount of sound reduction.





BENEFITS OF MINERAL WOOL INSULATION

Mineral Wool helps make your home comfortable

A well-insulated home reduces heat losses and prevents heat gains, which in turn helps maintain stable, comfortable temperatures.

What's more, quality insulation can prevent condensation and possible mould spores, and improve overall air quality in your home.



ECOSE® Technology is our unique bio-based binder, that is used in the manufacture of all of our Glass Mineral Wool products and the majority of our Rock Mineral Wool products, to bind insulation strands together.

ECOSE® Technology contains no added formaldehyde or phenol. It is made from natural raw materials that are rapidly renewable and is 70% less energy-intensive to manufacture than traditional binders, so it is more environmentally-friendly.

Products made with ECOSE® Technology are soft to touch and easy to handle. They generate low levels of dust and VOCs and have been awarded the Eurofins Gold Certificate for Indoor Air Comfort.



Whether you're getting Christmas decorations down from the attic or installing our insulation yourself, it will always be soft to touch and easy to handle.

When choosing insulation for your home, it's also best to look for low Volatile Organic Compound (VOC) products. Products made with ECOSE® Technology have all been awarded Eurofins 'Indoor Air Comfort GOLD' certification. This gives you the best assurance that the insulation meets low product emissions requirements.

BENEFITS OF MINERAL WOOL INSULATION

Sustainability

Quality excellence and sustainability are at the heart of everything we do; whilst we have a strong focus on the thermal, fire and acoustic performance of our products, our pursuit of sustainability has much wider horizons. Therefore we continually strive for improvements in our manufacturing and supply chain operations so to reduce our impact on the environment.

And let's not forget that our Glass Mineral Wool is made from natural and recycled content, mostly recycled glass (up to 80%). Our Rock Mineral Wool is made from volcanic rock and an increasing proportion of recycled material from slag, a waste product from blast furnaces.

By maximising the amount of recycled content in the manufacture of our products, we minimise our need for mineral raw materials.

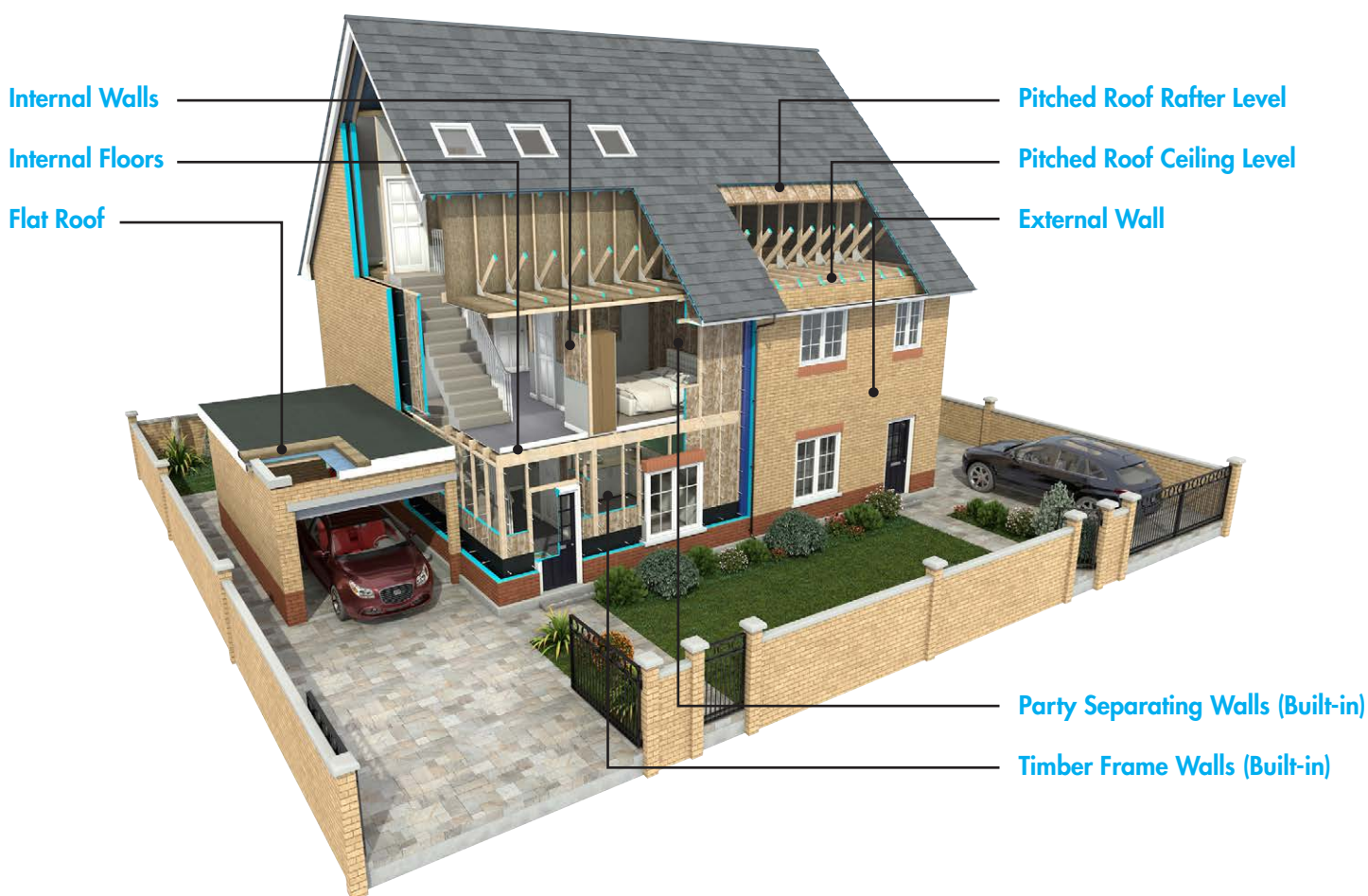




MAKE YOUR HOME ENERGY EFFICIENT WITH SUSTAINABLE INSULATION PRODUCTS

With 40 years of experience in the insulation industry, we are leading the change in smarter insulation solutions for a better world for us all - setting new standards of quality, performance and sustainability.

As a family owned multi-national manufacturer, we are proud to say that our Glass and Rock Mineral Wool products are manufactured right here in the UK. We have the whole house covered, whatever you need there is a Knauf Insulation product that does the job.





KEY INFORMATION AND CONTACTS:

For further information about Knauf Insulation products, visit
knaufinsulation.co.uk/homeowners

