Telephone: 01392 861763 backtoearth.co.uk

BACKTOEARTH

Helping You Build With Confidence





BACKTOEARTH

Helping you build with confidence.

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Welcome to Back to Earth, where craftsmanship, sustainability, and innovation meet to redefine the way we build. For over two decades, we've been at the forefront of providing natural, high-performance building materials that enhance the health of buildings, their occupants, and the planet.

Based in the heart of Devon, we've grown into one of the UK's leading suppliers of sustainable building solutions. From carefully selected wood fibre insulation systems to advanced moisture control tools, our materials are designed to work in harmony with your home and the environment. We don't believe in one-size-fits-all solutions instead, we take the time to understand each project's unique needs, creating bespoke specifications that stand the test of time.

But we're more than just a supplier. Back to Earth is a hub for education and expertise. Through tools like Fibres Academy and our online Learning Lab, we empower architects, builders, and homeowners to make informed decisions about sustainable construction. Whether you're restoring a centuries-old stone cottage or building a modern, eco-conscious home, we're here to guide you every step of the way.

Our mission is simple: to make sustainable, high-quality building accessible and achievable for everyone. Flip through the pages of this magazine to discover the innovative materials, systems, and services that have helped us transform countless projects. Together, let's build a better future one wall, one roof, and one home at a time.

@backtoearthltd

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Specification Generator

Get a specification tailored to your project's needs, in just a few clicks.

At Back to Earth, we understand that navigating sustainable building can be overwhelming. With so many materials and options, choosing what's right for your project isn't always easy. That's where our spec generator comes in an easy-to-use tool to get you started with eco-friendly materials.

What's the spec generator? Think of the spec generator as your first step. Answer a few questions about your project's needs—whether for the roof, floor, or walls—and then after a few clicks you'll receive a free tailored specification. This includes a breakdown of recommended materials, direct links to product pages, and a 3D model to visualise how everything fits together. You'll also get U-value and condensation risk calculations, all conveniently sent to your inbox.

But that's not where the support ends. Our friendly, knowledgeable technical team is ready to help you make the most of this information. When you give us a call, we'll already have your spec details in hand, so we can dive straight into discussing your specific needs, answering questions, and ensuring you have all the insights needed to get your project off to a strong start.

With the spec generator and our team by your side, taking a sustainable approach to building has never been simpler.

Head to the spec generator now and start your eco-build journey by scanning the QR code below.

Scan Now



In Wood Fibre We Trust.

Wood fibre insulation is a sustainable, high-performance solution perfect for both new builds and renovations. Made from timber yard off-cuts ground into fibres and compacted into boards and other forms, it's an eco-friendly material that reduces environmental impact while providing exceptional thermal performance. By minimising heat transfer, wood fibre helps stabilise indoor temperatures for year-round comfort. Its natural breath-ability allows it to absorb and release moisture, preventing mould growth and promoting healthier indoor air quality. The material's density also delivers excellent sound insulation, making it ideal for creating peaceful, quiet spaces. Wood fibre is compatible with sustainable building standards, including Passivhaus certification, and its versatility and ease of installation make it an excellent choice for any project aiming for sustainability and comfort.

For those wanting to dive deeper, check out our social channels, where we explore wood fibre insulation in our video series: Wood Fibre vs. The 8 Key Roles of Insulation. From thermal performance to moisture control, we put wood fibre through its paces to showcase why it stands out in the world of insulation.

No, it's not a fire hazard.

A common concern with wood fibre insulation is its fire safety due to its natural composition. While natural fibre insulation will burn in a fire, it's often mistakenly assumed to be far less fire-safe than synthetic materials with higher fire ratings. In reality, the dense structure of wood fibre boards limits oxygen within the material, significantly slowing the spread of fire. Think of it like this: a single sheet of paper ignites easily, but a thick book takes much longer to catch fire. Similarly, wood fibre insulation's density acts as a barrier, causing fires to travel slowly through a building. This can provide critical time for occupants to escape safely.

In contrast, some synthetic insulations burn much faster or release harmful gases that can prevent escape during a fire. Wood fibre insulation actually offers a level of fire resistance that can contribute to safer outcomes in emergencies.

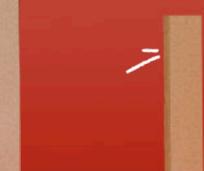
Wood fibre comes in two main forms: Wood fibre boards that fix externally or internally to a wall (right image), and flexible wood fibre batts (left image) that fit into voids between rafters, joists and battens.

Scan the QR code to view our wood fibre products.





















Our Wood Fibre All-Stars

UdiTHERM NF

UdiTHERM NF is a wet process wood fibre board (made using water to create boards) that has excellent moisture management properties. Wet process boards tend to be high density which gives them high thermal mass and very effective sound absorption. Because of this, we use it as part of our NatureWall internal wall insulation system.

UdiRECO

This unique board combines a compressible layer of flexible wood fibre insulation with a very robust 40mm layer of wood fibre board, to give a product that can be applied to uneven surfaces. This enables the fast insulation of stonework or rough rendered surfaces that would otherwise need to be flattened out first.

Udi IN 2cm

UdilN2CM combines a thin wood fibre board with a special corrugated layer which traps air. Although it is very thin, this board significantly improves comfort and prevents surface condensation and associated mould, making it ideal for areas where space is a premium but insulation is required.

SteicoFlex 036

Flexible wood fibre insulation forms the core of most roof, wall or floor specifications. SteicoFlex 036 is a very dense but compressible product that gives excellent acoustic insulation alongside it's very high levels of thermal insulation. Because of it's density, it fills out voids and accommodates movement and shrinkage in timber, without any slump.

To view our full range of wood fibre insulation products then just go back and scan the QR code on page 5, that will take you straight to our wood fibre page at backtoearth.co.uk

Natur held

We're excited to introduce NaturHeld Wood Fibre Boards, the newest addition to our range of high-performance insulation solutions. Engineered for both internal and external applications, these boards are designed to meet the demands of modern, eco-conscious construction. Whether for walls, roofs, or firerated boundary structures, NaturHeld boards offer versatility and reliability.

Why NaturHeld?

NaturHeld products are manufactured in a new cutting-edge facility in Germany, which uses a lot of renewable energy during manufacture. Their production process prioritises efficiency, significantly reducing environmental impact while delivering boards with industry-leading levels of stored biogenic carbon—a vital factor in lowering the carbon impact of construction projects.

We work closely with NaturHeld and have created a range of boards to our own specifications, suitable for both masonry and timber-frame applications. This has allowed us to make them higher performance, easier to handle and install and simpler to transport, enabling us to specify them more widely.

NaturHeld Wood Fibre Boards represent the next step in sustainable building practices. To find out more about our newest partner with Naturheld, scan the QR code to go to our blog post.







Retrofitting

The next 10 pages are dedicated to Retrofitting and the materials and systems we were showing at Futurebuild 2025.

The construction sector accounts for a significant share of global carbon emissions, driven by energy-intensive building practices and inefficient existing housing stock. Retrofitting-upgrading existing buildings to improve their energy efficiency and sustainability-is a critical step toward reducing these emissions. Across the UK and beyond, much of the housing stock was built before modern energy efficiency standards were established. These homes often suffer from poor insulation, leading to high energy consumption, increased carbon footprints, and poor living conditions.

By correctly retrofitting these buildings, we can significantly reduce energy demand, lower carbon emissions, and create healthier, more sustainable environments. Better insulation, improved air-tightness, and materials that help regulate indoor moisture and temperature help not only decarbonise but also enhance the quality of life for occupants.

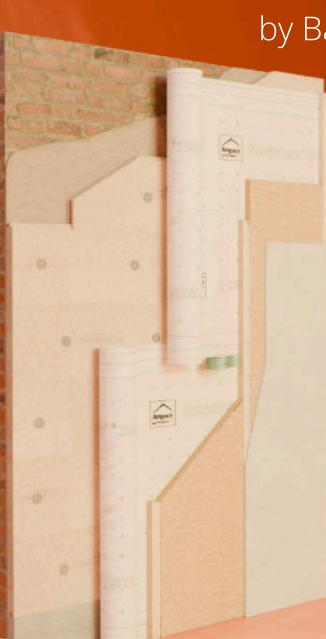
At Back to Earth, we are committed to helping builders, architects, and homeowners transition to more sustainable practices through carefully designed insulation retrofit solutions. We specialise in using sustainable materials that improve energy efficiency while fostering healthier indoor environments. Our solutions prioritise natural, nontoxic materials that improve energy efficiency and contribute to healthier indoor air quality and the overall sustainability of buildings.

Through retrofitting, we can preserve the character of existing buildings while driving forward the urgent mission of decarbonising the construction sector. At Back to Earth, we're here to make that transition as smooth, effective, and as sustainable as possible.



NatureWall

by Back to Earth



An ecofriendly and sustainable internal wall insulation system.

The NatureWall system is Back to Earth's complete solution for sustainable internal wall insulation. Designed for easy retrofitting, it transforms bare brick walls into fully insulated, plasterboarded surfaces while enhancing energy efficiency and reducing carbon footprints. This system features breathable materials that manage moisture effectively, ensuring long-lasting performance without compromising the health of the building.

It's all about the materials.

The NatureWall internal wall insulation system uses natural wood fibre insulation to provide unrivalled insulation, moisture control and heat retention. Wood fibre insulation, well known for its breathable properties, is ideal for use on solid-walled stone and brick properties as well as more modern brick or block cavity walls. To provide very high levels of air-tightness and to improve suitability over a much greater range of properties, we have included an air-tightness membrane within the system. This gives us a range of membranes to choose from to ensure the correct functioning of the system in every individual project.

A battened service zone is included with the system to allow services to run through the walls without breaking through the air-tightness layer. Even in commercial spaces, it is easy to get high levels of insulation without impacting practicality.

NatureWall can be finished with either standard plasterboard or Fermacell, depending on the level of robustness required. Both are highly breathable and low embodied energy products, complimenting the low carbon nature of the system. With this simplicity, a wide range of tradespeople can use the system with their existing skills.

Scan to find out more.



The NatureWall internal wall insulation system uses natural wood fibre insulation to provide unrivalled insulation, moisture control and heat retention. Wood fibre insulation, well known for its breathable properties, is ideal for use on solid-walled stone and brick properties as well as more modern brick or block cavity walls.

Xella Multipor boards are lightweight, noncombustible, and vapour-permeable, with a thermal conductivity down to 0.040 W/ m·K. Their mineral composition ensures durability, fire safety, and excellent compatibility with wood fibre boards for breathable, high-performance insulation.

Fibres Academy

You can learn all about the NatureWall System at Fibres Academy, with a dedicated course on the whole system. Head to page 23 to read more about Fibres Academy and how to get started.





Xella Multipor

Internal Mineral Insulation Board

Xella Multipor Mineral Insulation Boards are an eco-friendly, mineral-based insulation solution suitable for interior applications, especially in settings where moisture regulation and noncombustibility are essential. The range of boards, made from sand, lime and cement, are produced in a way that creates a high volume of air-filled pores, resulting in a material with very high vapour permeability and outstanding insulating properties. Multipor boards have low thermal conductivity of between 0.040-0.043 W/mK, depending on whether internal or external boards are being used. This composition makes them effective at managing moisture, preventing mould growth and so contributing to comfortable and healthy indoor environments.

The Multipor boards offer several technical advantages. They are adhesively fixed, using a lime-based adhesive, making installation very fast,

especially on very hard masonry surfaces where drilling is slow. They also have high compressive strength (≥300 kPa), which ensures stability under load while maintaining lightness at approximately 115 kg/m³. Their vapourpermeable structure, with a diffusion resistance factor (µ) as low as 2, and their ability to buffer and manage moisture makes them especially beneficial for retrofitting older buildings prone to dampness. They can also be used below ground and in basements. For any more information about the Xella Multipor boards then head to our product page via the QR code below:





Airtightness with Ampack

Airtightness is a cornerstone of sustainable construction and no matter how much insulation you have, it won't save energy unless the building is airtight. It plays a critical role in minimising heat loss, enhancing energy efficiency, and protecting the structural integrity of buildings. Poor airtightness allows warm, moist air to escape through gaps and leaks in the building envelope, which not only wastes energy but also leads to condensation within the structure. This can cause problems like mould growth, timber decay, and a reduction in insulation performance. Achieving airtightness is essential for creating durable, low-energy buildings that provide a healthy indoor environment. At Back to Earth, we understand the importance of combining airtightness with proper ventilation and high-performance insulation to meet the demands of sustainable construction.

Introducing Ampack

Ampack is a Swiss leader in building envelope solutions, offering high-performance vapour control layers, airtight membranes, facade systems, and durable adhesive tapes. Their extensive range of airtightness systems allow us to choose products to fulfil specific roles within our range of specifications. They work seamlessly with our wood fibre insulation and other natural materials, creating efficient, eco-friendly, and durable buildings. By partnering with Ampack, we ensure that our customers have access to reliable, cutting-edge solutions for airtightness and moisture control, helping them meet the highest standards in sustainable construction.

Together, we're enabling builders to create healthier, more sustainable spaces for the future.

Scan here to view our full Airtightness range.



Less plastic, more paper.

Achieving airtightness while ensuring every element is sustainable can be challenging, as many traditional components like glues, acrylic tapes, and other materials aren't particularly eco-friendly.

However, Ampack has introduced innovative solutions with their new paper-based products: a paper vapour control and airtight membrane, alongside a liner-less paper airtight tape. The Sisalex 303 membrane is crafted entirely from materials of natural origin, while the liner-less tape not only uses paper but also significantly reduces waste by eliminating the need for a release liner.





Baumit at Back to Earth

Baumit is a leading name in sustainable construction, renowned for their lime- and clay-based plasters, advanced facade systems, and high-performance renovation products. Their products are designed to enhance building breathability, improve energy efficiency, and ensure long-lasting durability, all while using natural materials that promote healthy living environments.

With their focus on vapour permeability and durability, Baumit's solutions align perfectly with Back to Earth's specifications, providing robust and certified render systems for our natural fibre insulations

Breathable Envelopes

Breathability is crucial in renders and plasters to maintain a healthy and durable building envelope, particularly in older or traditionally constructed buildings. Materials that allow moisture vapour to pass through help prevent trapped condensation, reducing the risk of damp, mould, and structural damage while improving indoor air quality and comfort. Lime- and clay-based products are ideal for this purpose due to their natural vapour permeability, with lime offering flexibility, durability, and mould resistance thanks to its alkalinity, and clay regulating indoor humidity through its hygroscopic properties. Through our careful specification, Baumit products cater to these needs with their Sanova and Klima lines, designed to enhance breathability while promoting sustainable and healthy construction practices in both traditional and modern buildings.



Silicone Finishes

Coloured silicone finishes are the most commonly used type of finish to the thin-layer render systems used over wood fibre insulation. Their water-repellency, flexibility, durability and breathability make them ideal for the purpose.

Head to our full range of renders and plasters by scanning below



Over Rafter Insulation

The core of all of our wood fibre insulation specifications is the SteicoFlex flexible wood fibre insulation. It is installed from outside and used to fully fill between the rafters, providing a very snug fitting heat and sound absorbing layer of insulation. A continuous layer of NaturHeld wood fibre insulation boards is then fixed over the rafters creating an uninterrupted, wind and weathertight insulation envelope. To ensure the highest efficiency of the insulation, Ampacoll vapour control membranes are used internally to manage moisture and prevent air leakage. Using the huge thermal mass of wood fibre boards on top of the rafters reduces summer heat penetration and keeps buildings cooler. This also keeps the roof timbers warm and dry, increasing the longevity of the roof structure.

Because of the low U-values required and the area of the roof, the use of wood fibre insulation ensures huge amounts of carbon are stored within the roof structure.

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OSB & VCL: If working from inside OSB is

fixed under the rafters. If installing from

outside the Ampacoll Solero vapour control

membrane is applied over and between the

rafters with Ampacoll DT tape used to hold

the membrane in place.

Battens & Counter Battens: The counter battens are fixed back to the rafters, through the membrane and wood fibre boards. Battens are fixed, followed by the roof covering.

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NaturHeld wood fibre boards: Laid over rafters in a brick pattern with T&G joints for wind tightness.

Eaves Tray & Ampatop Protecta breathable membrane: The eaves trays are fixed onto the surface of the wood fibre boards with Ampacoll Fenax tape,. The Ampatop Protecta breathable membrane is fixed down to the boards with Ampacoll DT tape, over the eaves tray, creating a drip into the gutter.

SteicoFlex flexible wood fibre insulation: Fully filling the voids between the rafters.

SteicoFlex flexible wood fibre insulation: This is used to fully fill the voids between the rafters, up to the roofing membrane.

NaturHeld wood fibre boards: Installed in one or two layers (depending on thickness), these are fixed back to the rafters.

Under Rafter Insulation

In this scenario all the materials are installed from inside, ideally against an existing breathable roofing membrane. The SteicoFlex flexible wood fibre insulation is used again to fully fill between the rafters but this time, the NaturHeld wood fibre boards are used below the existing rafters. It is profiles and so this is the alternative. The build-up uses the eaves combination of high performance materials but in a different order. You're able to further utilise the thermal mass of the wood fibre boards to requirements further.

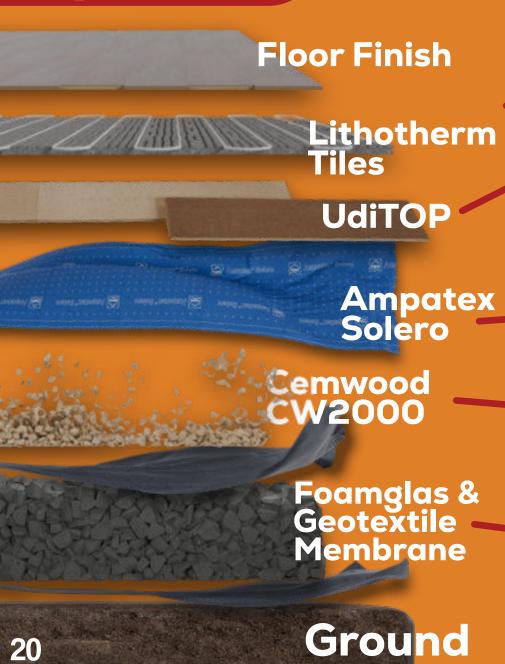
SteicoFlex and Battens: The internal battens are fixed through the boards, back to the existing rafters. Before fixing the plasterboard, SteicoFlex is used again between the battens to add further insulation and improve internal acoustics.

Ampatex DB90 vapour control layer & Ampacoll Fenax airtightness tape: The airtightness and vapour control layer fixed into place using Ampacoll DT double sided tape, with the edges sealed down to the airtightness layer on the walls using Ampacoll Fenax.



Read More about both these Roof Systems by scanning this QR Code.

LithoGlas System



A high-output underfloor heating system for use with air/ground source heating, as well as being a dry, 45mm screed replacement, creating a thinner screed layer with absolutely no drying time.

These wood fibre boards are used to form a flat, clean base for the Lithotherm underfloor heating tiles. They also absorb sound from the tiles, making the floor much better at absorbing impact vibration.

The Ampatex Solero vapour control/airtightness/moisture barrier membrane is incorporated into the floor to manage moisture. All of the joints are well taped and an up-stand around the perimeter to allow connection to the walls or IWI system that may be used.

Cemwood CW2000 is an eco-friendly, insulating aggregate made from mineralised wood chips. It is a load bearing, levelling underlay to ensure the finished floor is completely level.

The Foamglas aggregate is installed to the required thickness to achieve the building control target, typically between 200 – 250mm. It is installed in 2 layers over the geotextile, raked level and compacted with a plate compactor between each layer, to ensure solidity.

Solid Floor Insulation

This build-up can be used to replace a standard solid floor construction using a concrete slab and PIR insulation and creates a free draining, re-useable floor structure that is completely dry and can be finished immediately.

This makes it ideal for projects where time is of the essence or where lots of timber is present that needs to be kept dry. None of the materials are wet so there is no waiting between the layers for anything to dry.

Concrete slabs and screeds take time to dry and release large quantites of moisture into a building, which can cause movement in timber and mould. Once set they cannot be adjusted, only broken up and disposed of.

The possibility of deconstruction is what reduces the long-term environmental impact of this floor specification. Although Foamglas uses post-consumer recycled glass, it still uses a significant amount of energy in it's production. However, once produced, it is inert and non-toxic, durable and does not break down. As it requires no binder to hold it together it can be endlessly reused.

The ability to adjust the thickness of layers is also useful as it creates the possibility of either correcting errors or enabling adjustments in height at a later date. If a floating timber floor is used over the Lithotherm tiles, the entire floor can be disassembled and re-used elsewhere.

External Wall Insulation

Low risk with high levels of performance.

Adding external wall insulation to a building can often be a great way to improve the levels of thermal comfort within the building, both in winter and in summer. It raises wall temperatures and prevents surface mould often associated with cold masonry walls. Keeping the thermal mass of the masonry within the thermal envelope stabilises internal temperatures and helps buffer the highs and lows of external temperatures.

Wood fibre insulation boards excel as an external insulation material due to the way they manage heat and moisture. Their ability to retain heat prevents the algal growth that is often associated with synthetic insulation on sheltered faces and their breathability and hygroscopicity help manage moisture within the walls.





Clad & Rendered Finish

Wood fibre external wall insulation can be finished with a directly applied render or clad with timber.

The render systems applied to the boards use a breathable thin-layer, base coat plaster and are finished with a self-coloured, silicone finish render. The finish renders are available in various textures and hundreds of different colours, giving great flexibility in the outward appearance of the building.

All sorts of cladding can be fixed over the wood fibre boards, from tradition and modern forms of timber, to metals and masonry.

Sealing the Gaps

Detailing any system correctly is critical for it's effectiveness and longevity. We have created details that are highly effective but simple to install to ensure that the most vulnerable parts of your building do not let the weather in. Our step-by-step guides support installers all the way.

A sealed envelope

The insulation that wraps around your building should be continuous to maintain effectiveness and prevent issues with condensation. The NaturHeld wood fibre boards run up the walls and over

walls and ove the roof to maintain continuity.



insulations that are not susceptible to moisture. The plinth area is insulated with

to keep the heat in and moisture out.

XPS or Multipor and rendered with waterproof Baumit renders

"Fibres' online courses have been instrumental in helping us specify the use of wood fibre confidently."

- Christian Brailey Director at Christian Brailey Architects

Learn how to specify, source, and use wood fibre insulation.

Fibres Academy offers a practical route for professionals to learn about wood fibre insulation. Through our platform, users take a detailed exam, get accredited, and can join a list of certified experts. From foundational principles to advanced techniques, our expert-led programs cater to all levels of expertise. Since its launch in 2018, Fibres has earned

the trust of over 600 organisations as a leading provider of wood fibre education.

Recently what was once known as just Fibres received a major overhaul and became Fibres

Academy. Alongside this makeover came the expert directory—an online database showcasing professionals who have passed their exams, earned accreditation, and are now publicly listed as ready to apply their expertise to real-world projects. More on that below.



NEW How-to Animations.

The Fibres Academy now features stunning new animations designed to bring wood fibre education to life. These engaging visuals guide learners step-by-step through complex concepts, from product installation to sustainable building techniques. Each animation is crafted to simplify learning, making it easier to grasp technical details and apply them confidently in real-world scenarios.



One of the main new additions to Fibres Academy is the new accreditation system we have in place for those wanting to take what they've learnt into the real world. Here's a timeline to show you how this works.

First Complete the courses. We currently have 8 courses available on the Fibres Academy website, ranging from air-tightness to external solid wall insulation. You can either focus on one or go through all of them, but pay attention because you will be tested at the end.



Pass the tests and become certified. After completing each course and passing the tests, you will have the option to be added to our list of professionals, a directory of those who pass the tests and become certified in those fields. If you complete all the courses then you can become a Fibres Certified Expert.

Connect with others and start building. Once your profile has been added to our list of experts, anyone can find you, your areas of expertise, and the areas of the nation you cover. Whenever anyone is looking for a professional to help with their next wood fibre project, they can find tested professionals at Fibres Academy.

BACKTOEARTH



Back to Earth is rated 4.8 stars on Google Reviews.

Have we worked with you?

If we had the pleasure of working with you before or if you have ever had some materials, advice or specifications from us then let us know how we did good or bad we want to hear from you.



*Data collected and true in January 2025.

See what our customers are saying about us...

"Fantastic knowledge on wood fibre and natural building products, super helpful and contactable."





"We are very pleased with very professional approach and great advice from Chris and his team there. He was very helpful and able to answer every question with a reasonably detailed explanation. Definitely will be coming back with the next project. Thank you very much."





"Great service and the specification tool is very easy to use and useful."





"Ordered some supplies from Sacha, who dealt with my enquiries very efficiently and had next day delivery as an option. I've dealt with this company in the past and found them very helpful in dealing with my very old home. A real pleasure to do business with them."





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Helping you Build with Confidence



01392 861763



chris@backtoearth.co.uk









@backtoearthltd

Thank you!