

PROTECT & PRESERVE:

IKO'S ULTIMATE ROOFING GUIDE FOR HERITAGE & LISTED BUILDINGS







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Experience excellence with IKO

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Commitment to continuous improvement

PROTECTING OUR HERITAGE FOR FUTURE GENERATIONS

Heritage and listed buildings in the UK are more than just structures; they are the physical embodiment of our nation's rich history and cultural identity. From castles to stately homes, they offer a connection to the past, providing insights into the architectural styles, craftsmanship and social histories of bygone eras. Each stone and beam holds memories of the past, giving us an authentic glimpse into the lives of those who came before us.

These buildings also provide significant educational, economic and social benefits, drawing millions of visitors from around the world who contribute to the local economy.

Given their unique value, it is crucial that heritage and listed buildings are protected for future generations. This involves not only maintaining their physical structure but also ensuring that any restoration work respects their historical integrity. By safeguarding these buildings, we ensure that future generations can experience and learn from the past, maintaining a tangible link to the rich tapestry of the UK's history.



2022



IKO: COMMITTED TO UPHOLDING THE HISTORICAL INTEGRITY OF HERITAGE BUILDINGS

With a legacy of over 140 years in roofing excellence, IKO appreciates the importance of the nation's iconic properties and architectural treasures. We are proud to preserve the historical integrity of the UK's heritage and listed buildings through the provision of superior roofing materials and expert workmanship.

IKO combines traditional techniques with modern innovations to ensure these buildings are protected and maintained in a manner that honours their historical significance.

Here's a look at how we do it:



HIGH-QUALITY ROOFING MATERIALS

IKO offers a range of high-quality roofing materials specifically designed for the unique needs of heritage buildings. Products, such as mastic asphalt, are renowned for their durability and longevity, making them ideal for the preservation of historic structures. These materials are crafted to match the original specifications as closely as possible, ensuring that restorations blend seamlessly with the existing architecture.



EXPERTISE IN TRADITIONAL TECHNIQUES

Understanding that the preservation of heritage buildings requires specialised skills, IKO only works with craftsmen and roofing experts who are proficient and qualified in traditional roofing techniques. This expertise is crucial, as it ensures that restoration work respects the original construction methods and materials used.



SUSTAINABLE AND LONG-LASTING SOLUTIONS

IKO is also committed to sustainability, recognising that the preservation of heritage buildings goes hand-in-hand with environmental responsibility. Our roofing solutions are designed to be both durable and sustainable, minimising the need for repair. This not only protects the buildings but also reduces the environmental impact associated with construction materials and waste.

BUILT TO LAST: THE TIMELESS APPEAL OF MASTIC ASPHALT

Mastic asphalt has been tried, tested and trusted by the roofing industry for centuries. Its exceptional durability has earned it a reputation as a robust solution that can last for generations.

Here, we delve into why mastic asphalt remains a compelling choice and explore how this traditional solution can meet the demands for sustainable construction while offering a design life that spans more than a century.

Why mastic asphalt?

Mastic asphalt is one of the most enduring materials in the construction industry and boasts a rich history and impressive longevity. The first patent for mastic asphalt dates back almost 200 years, though its use extends much further into the past.

Composed primarily of bitumen, limestone filler, and aggregate, mastic asphalt is applied in a molten state, which allows it to be molded to fit any shape, contour or detail, creating a seamless, monolithic finish.

Its long-term durability makes mastic asphalt the go-to choice for protecting the integrity of the UK's most cherished buildings. For conservation purposes, mastic asphalt is the obvious choice for refurbishing historically significant structures, as it was the original material used in their construction. Mastic asphalt is frequently specified by the National Trust and English Heritage, as well as other public and private owners of prestigious buildings in this sector.

In recent years, IKO's mastic asphalt solutions have been specified for high-profile projects at iconic landmarks such as Battersea Power Station, the Tower of London, Westminster Cathedral, and St Paul's Cathedral. These projects highlight the material's unmatched ability to preserve architectural heritage and provide protection against the elements.





WHY IKO PERMAPHALT?

Despite its traditional roots, mastic asphalt has evolved to meet modern technological standards. Leveraging our heritage and expertise, IKO has developed advanced variants like IKO Permaphalt. Manufactured at our IKO Grangemill site in Matlock, Derbyshire, IKO Permaphalt uses advanced polymer technology for superior temperature stability, flexibility and fatigue resistance, making it ideal for refurbishment projects.

VERSATILITY AND PERFORMANCE

IKO Permaphalt's advanced formulation makes it a versatile solution for various waterproofing applications, from flat roofing to water features. Its adaptability allows it to be tailored for specific project needs. Its hard-wearing properties support heavy foot traffic and extreme conditions, while its seamless, monolithic finish ensures durability and waterproof integrity

SUSTAINABILITY

IKO Permaphalt is ideal for green roofs and projects prioritising sustainability. IKO sources raw materials responsibly and locally, as our mastic asphalt products are manufactured in the UK, transportation emissions are lower than materials sourced and shipped from overseas.

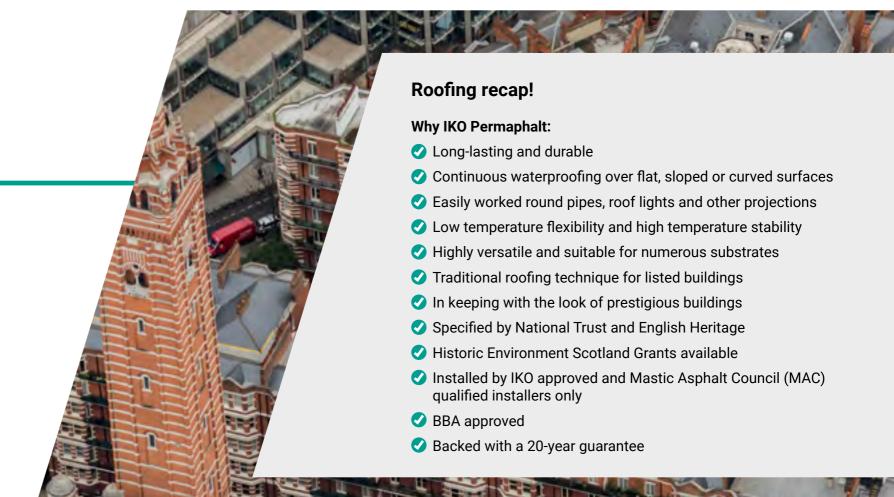
What's more, at the end of its life IKO Permaphalt can be upcycled into other asphalt products. Its long lifespan reduces the need for frequent replacements, thereby minimising the environmental impact associated with roofing materials.

CONFIDENCE IN CRAFTSMANSHIP

All IKO mastic asphalt installers undergo an intensive apprenticeship and achieve a minimum NVQ level 2 qualification, ensuring the highest standards in craftsmanship. IKO works with a network of skilled installers, supported by field engineers and business development managers with industry experience, providing invaluable advice and technical support.

ENGINEERED FOR ENDURANCE

Can mastic asphalt meet today's roofing challenges? Absolutely. IKO Permaphalt can ensure the longevity and preservation of the UK's landmark buildings, proving that sometimes, traditional solutions are the best answer to contemporary challenges.



THINK PREVENTION, NOT PROBLEM

Roofing refurbishment can often fall down the list of priorities, given that it is often out of sight and maintenance funds are often limited. However, neglecting a roof, which protects the structural integrity of buildings and their valuable contents, can have dire and expensive consequences.

Here, we explore the two approaches available – proactive and reactive – and what to expect from each route.

PROACTIVE

Assess your roof's condition through a professional assessment



Identify potential problems early through a detailed report



Find the right partner and solution



Schedule maintenance/installation



This can lead to:

- ✓ Long-term savings
- ✓ Uninterrupted teaching time
- ✓ Safeguarding of visitors and staff
 - ✓ Lower carbon footprint
 - ✓ Improved energy efficiency

REACTIVE

Wait for a problem to manifest



Encounter leaks or complete failure



This can lead to:

- ★ Closures and unnecessary damage
 - ★ Lost revenue through unexpected disruption
 - **X** Costly repairs
 - × Poor energy efficiency



REQUEST A SITE VISIT FROM OUR WATERPROOFING EXPERTS

Roof refurbishment is a necessary investment. Taking a proactive approach can ensure the structure is fit for the future, significantly more efficient and help avoid unexpected and disruptive remedial works down the line.

In partnership with specialist and experienced building surveyors, IKO can advise on how to specify and improve your building's flat roof waterproofing integrity.



Preserve and protect your building with the help of IKO. For your free roofing condition survey, scan the QR code or visit https://ikogroup.co.uk/mastic-asphalt-heritage-projects/



TOP TIPS FOR CHOOSING THE RIGHT ROOFING PARTNER

When it comes to choosing the right roofing partner for your heritage project, it is important to find providers who can deliver on your objectives, align with your values and share in your long-term vision.

Here, we outline the key considerations when seeking a roofing partner and how IKO can help.



CONSULTATION

Every project will have its own unique set of requirements and goals but the overarching objective is to achieve maximum longevity with minimal environmental impact, within budgetary Requirements. Choosing a partner that can not only offer the right product specification but also provide tailored solutions, technical guidance and sustainability helps to ensure you protect your building in the long term



SURVEY

A thorough analysis of the building's waterproofing envelope should be provided, detailing recommendations for repairs and replacements. To help identify any roofing or waterproofing issues, IKO's free-of-charge roof report includes a full expert and outlines any defects that require attention.



DESIGN

Every design should be bespoke, tailored specifically for individual roofing requirements and in line with regulations. IKO is a member of leading organisations in the roofing industry, including the <u>Mastic Asphalt Council (MAC)</u>.

This assures that our designs and specifications are always up-to-date and compliant with building regulations, including environmental legislation. IKO's agile approach also means that we can adapt to any changes once the project gets underway, be that supporting with on-site monitoring, adapting the scope of work during the installation or any last-minute design changes, if required.





SOLUTION

The quality of materials, contractors and project support should be key considerations. With over a century of UK manufacturing experience – and access to reliable stock and responsive national delivery network – we have earned a reputation as a trusted supply partner. With the most comprehensive range of systems and complementary solutions on the market, you can get everything you need for your project under one 'roof'.



INSTALLATION

All of our systems are installed by trained, IKO-approved and experienced mastic asphalt contractors who must adhere to our strict specification requirements to be covered by our comprehensive warranty.



INSPECTIONS

A pipeline of site visits should be planned and regular inspections by trained professionals scheduled for before, during and after the installation. At IKO, we work in close collaboration with both contractors and clients throughout the project. Our team of technical engineers conduct regular on-site visits to check that works are being carried out according to specification requirements and provide technical support and guidance, where needed. This helps to ensure that IKO's high standards are maintained.



GUARANTEES

A long-term commitment from you deserves an equally long-term commitment from us. IKO offers comprehensive guarantees of 20 years that cover both materials and installation. Our network of trained installers ensures that your roofing system is installed correctly and performs as expected, providing you with added assurance and ultimate peace of mind.

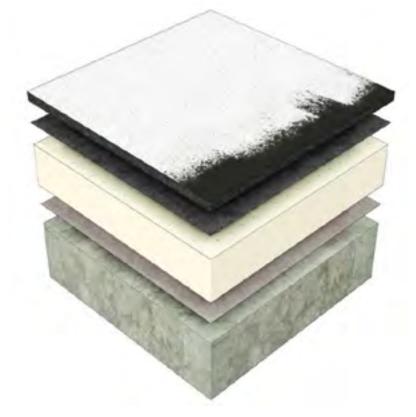


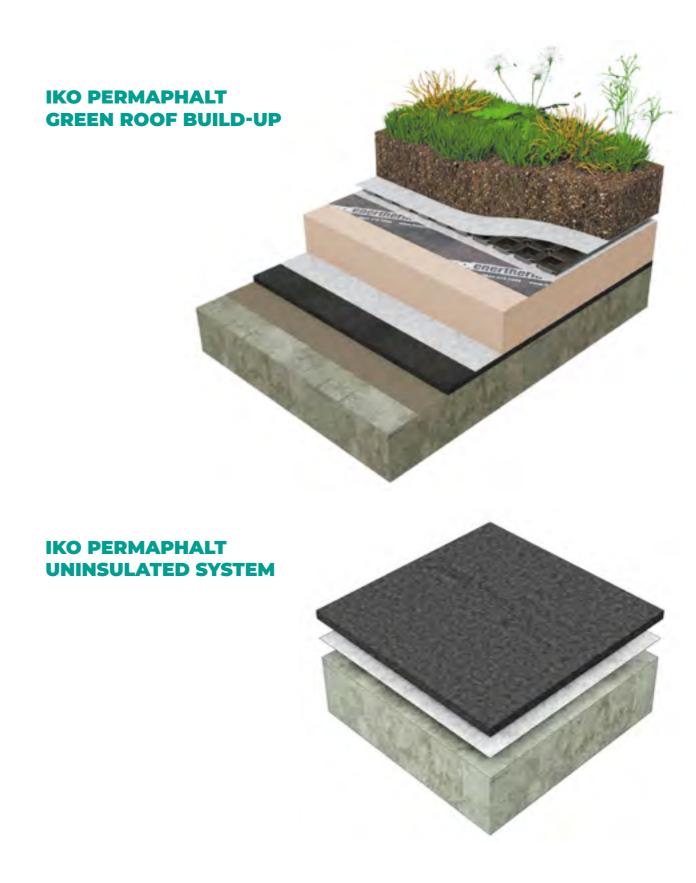
IKO PERMAPHALTTHE REFINED ROOFING CHOICE FOR UK LANDMARKS

Whether you are managing a one-off heritage project or are seeking a roofing partner for your property portfolio, you can trust you are in good hands with IKO. We have the technical expertise and tailored solutions to upgrade your roof while respecting its uniqueness. Our network of approved IKO installers have the specialist skills to ensure your project runs smoothly and will protect the integrity of your building for years to come.

Typical system build-ups

IKO PERMAPHALT WARM ROOF SYSTEM





For more information about the IKO Permaphalt systems, visit our website.



IKO IN ACTION CASE STUDIES

DERBY MUSEUM

Project description

Derby Museum and Art Gallery, located in the heart of the city, is home to a range of culturally significant collections, including the world's largest collection of work by the 18th Century artist Joseph Wright of Derby.

The building was established in 1879; designed by Richard Knill Freeman and given to Derby by Michael Thomas Bass. An extension was built in 1964.

The roof had come to the end of its serviceable life and required a complete strip off and reinstallation. The roof had been previously overlaid several times but each time the roof had failed before the expected life expectancy.

The client wanted the most robust and durable roofing system possible, as there was £70million worth of culturally significant paintings located below the roof.

Solution

The building has a number of roofs cascading from upper to lower areas, as well as a highly unusual, pitched mastic asphalt roof, adding a level of complexity to the design and installation process.

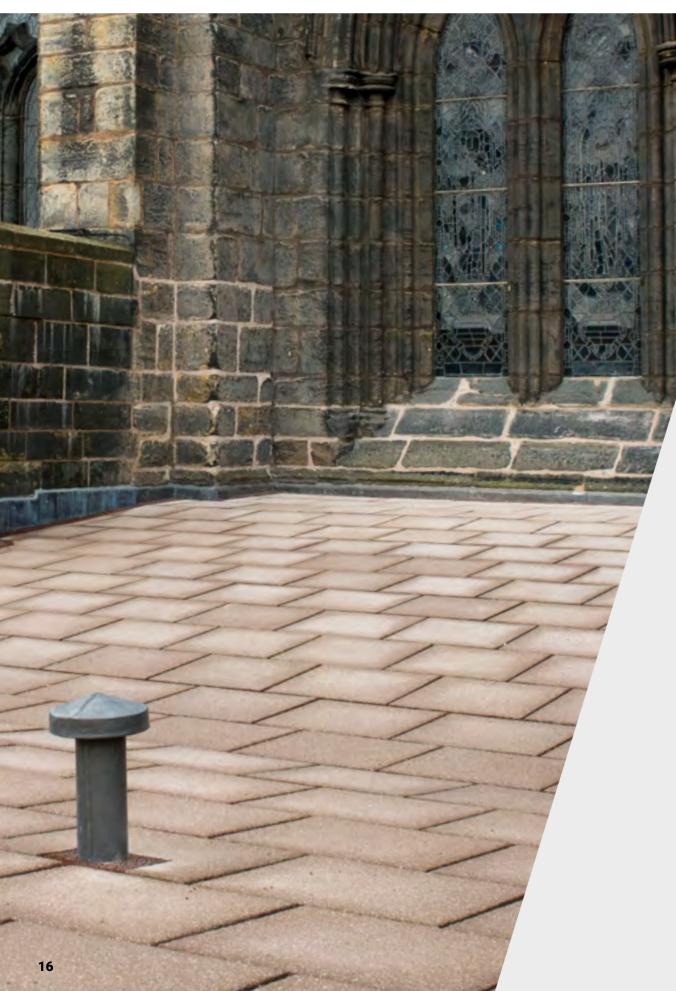
The existing pitch enabled an IKO enertherm MG board to be utilised, mechanically fixed using marine plywood and expanding metal. A tapered IKO enertherm MG board scheme was designed and installed to the flat roof areas. This was challenging, as all areas had to achieve the client's target u-value, while maintaining the integrity of the building and minimising impact on existing details. The roof areas were then drained towards internal outlets and weirs.

A new ballasted man-safe system was installed to ensure all future roof maintenance can be carried out safely. IKO Permaphalt, a polymer modified mastic asphalt solution, was used to create a long-lasting, durable roof that met the client's requirements and helped bring a new lease of life to a well-loved local institution.









IKO IN ACTIONCASE STUDIES

BLACKADDER AISLE GLASGOW CATHEDRAL

Project description

Glasgow Cathedral is one of the most impressive buildings to have been erected in medieval Scotland. It is considered one of the best surviving examples of Gothic architecture in the country, with parts of the structure dating back to the 1400s. Existing mastic asphalt re-laid in the 1980s was still in reasonable condition but the client established that damp within the Crypt below was the result of condensation.

Rather than placing the insulation above the 40 year old asphalt, a decision was made to renew the mastic asphalt with IKO Permaphalt and then to install IKO enertherm XPS Insulation designed to overcome the condensation problem.

Solution

Logistically this project was very challenging given the historic live environment in which the cathedral is located. The Blackadder Aisle area housed some of the most important and priceless ornate plasterwork and cornicing in the UK so it was imperative that the integrity of the building was not be compromised in any way during these works.

There was no direct access to the Blackadder Aisle, therefore a temporary road had to be constructed leading to a working platform to house the mixer, constructed out of heavy duty railway sleepers.

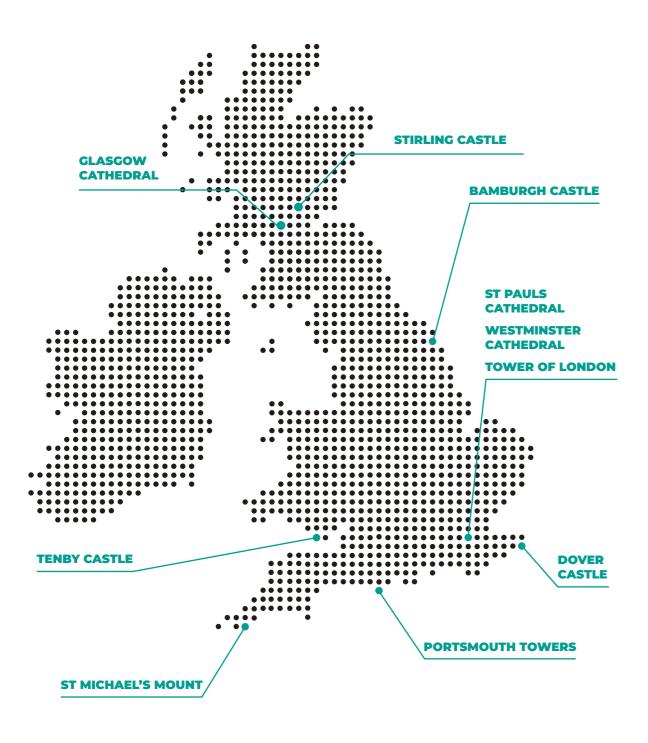
From here a 40m long ramp was provided to traverse the ancient graveyard and take the materials to and from the ramparts of the aisle. The asphalt was lifted up and over the parapet walls and back down to the roof area via a series of ladder hoists and pullies.

To a bystander, the site set up and processes which were necessary may not have looked that different to the methods some 600 years earlier, which was a sight to behold in itself. The works, including intricate lead and stone work, were completed to the standard required of Historic Environment Scotland and to the satisfaction of everyone involved in this unique project.





OTHER IKO HERITAGE PROJECTS



FINDING YOUR WAY THROUGH FUNDING

Securing funding for the refurbishment of historic buildings can be a complex process but several prestigious organisations provide grants specifically for these projects.

The <u>National Lottery Heritage Fund</u>, <u>Historic England</u>, <u>Historic Environment Scotland</u> and other notable bodies offer financial support to preserve the architectural and cultural heritage of historic buildings. By providing detailed technical support, IKO helps to streamline the refurbishment process, ensuring that these invaluable buildings are preserved for future generations.

How can IKO help?

IKO can assist with tendering by providing the necessary technical expertise for each individual project. We can connect applicants with our nationwide network of approved and experienced installers. What's more, as we are involved in every stage of the process, from the design element and product manufacture to site inspections and final sign-off, we have complete project visibility and quality control.

Getting roofing right, every time

IKO's high-quality roofing solutions are designed to stand the test of time. With a long-standing heritage in the roofing industry, we have built a reputation for producing systems that are robust, reliable and compliant to BBA construction industry certification. So you can rest assured that when you choose IKO, you choose excellence.



PROTECTING WHAT MATTERS

Recognising the profound impact of climate change, IKO is dedicated to safeguarding our future, as well as protecting our past. As an industry leader, we understand our responsibility to address the climate crisis and ensure the longevity of historic buildings. Our commitment to Environmental, Social, and Governance (ESG) principles underscores our dedication to sustainable practices, transparency and accountability

Vision of preservation and prestige

We've invested heavily in reducing the environmental impact of our manufacturing processes. As part of our commitment to making ongoing improvements to ways of working, manufacturing technologies and reduce, reuse and recycle initiatives, we've made huge strides across our sites.

All of our sites now run on renewable electricity and we make every effort to divert as much waste as possible away from landfill. Where possible, we source our raw materials locally and because our manufacturing is UK-based, CO2 emissions from site-to-site transportation are lower than many international manufacturers. In fact, a traceability study revealed our localised production processes incur average mileage of 263 miles – a fraction of the distance it would take to procure products from Europe or further afield.

Focus fixed on the future

We always aim to operate with honesty and integrity and for us, this means protecting what truly matters – people, places and the planet. Our scientifically-backed targets align with climate science and the <u>Science Based Targets (SBT) initiative</u>. By 2030, we aim to reduce scope 1 and 2 emissions by 42% and achieve net zero emissions with a 95% reduction in scope 1, 2 and 3 emissions by 2050.

We believe that collaboration and transparency across the supply chain is crucial for driving sustainable change. That's why we work closely with suppliers and clients to understand and help fulfill their needs and goals. By 2030, we aim for 70% of IKO PLC (UK) suppliers to align with SBTi and for 100% of raw material suppliers to have decarbonisation plans.

As an official partner of the <u>Supply Chain Sustainability School</u>, we also aim to inspire on more environmentally- conscious and sympathetic operations across the heritage construction sector. In a word, our roofing systems and manufacturing practices are designed to help minimise climate-related risks while preserving historic structures for the enjoyment and education of future generations.







COMMITMENT TO CONTINUOUS IMPROVEMENT

At IKO, we strive to exceed industry standards by adhering to respected accreditations. We are proud to have achieved the BES 6001 Standard for Responsible Sourcing, ensuring our products are sourced with a conscientious approach to environmental protection, social equity and economic viability.

Our ISO certifications include:



9001 (Quality Management)

Ensures our products and services meet high standards.



14001 (Environment Management)

Highlights our commitment to minimising environmental impact through efficient resource use, manufacturing processes and waste reduction.



45001 (Occupational Health)

Demonstrates our commitment to excellent standards for staff safety and well-being.

Enhancing our environmental efforts

To build on our efforts to secure a more sustainable future, we are implementing PAS 2080, a pioneering standard for managing and reducing carbon in the infrastructure sector. This standard emphasises a consistent and transparent approach to tracking emissions and reducing the carbon footprint of infrastructure projects throughout their lifecycle.

PAS 2080 will be a cornerstone in our efforts to combat climate change, reduce our environmental impact and promote sustainable development. Additionally, we are pursuing CCPI accreditation and have Environmental Product Declarations for all our systems.

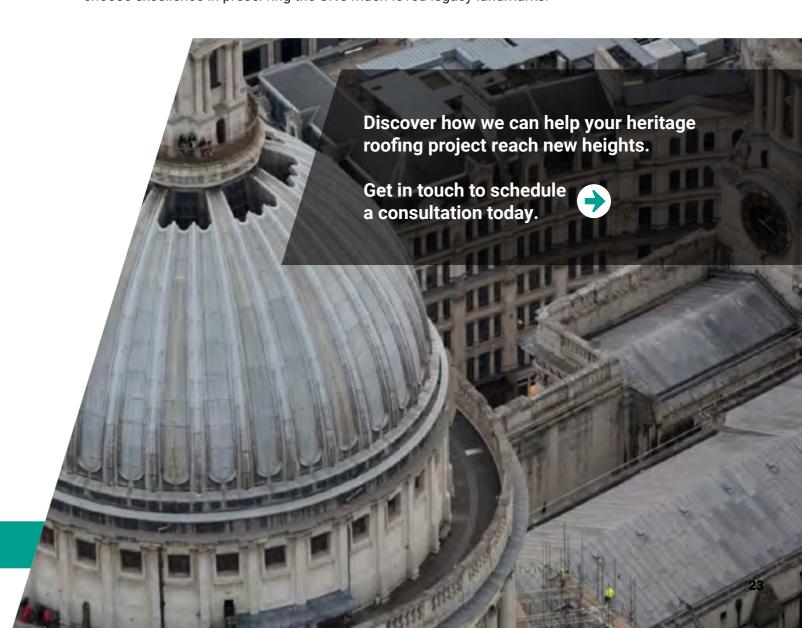
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Read our ESG Report 2024

EXPERIENCE WITH IKO

As a champion of UK manufacturing, IKO is dedicated to protecting your investment in historic buildings and ensuring the optimal performance of your roof for years to come. We offer the expertise, agility and full-service solutions to meet your needs at every project stage, from specification to installation. What's more, our focus on sustainable operations provides smart solutions that lower the carbon footprint of roofing projects and ensure energy-efficient, climate-resilient historical buildings.

No matter the size or scope, age or uniqueness of your project, you can rely on IKO for a seamless, efficient and reliable experience. When you choose IKO as your roofing partner, you choose excellence in preserving the UK's much-loved legacy landmarks.













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