



## SAFE, SUSTAINABLE FAÇADE SOLUTIONS

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General: +44 (0) 191 587 2287

Email: technical@sotech-optima.co.uk

Technical: +44 (0) 191 587 9213

Web: sotech-optima.co.uk/contact

Address: Sotech Middle East LLC FZE, The Meydan, Dubai, U.A.E

> Sotech Peterlee, Unit 2 Traynor Way, County Durham, SR8 2RU

Sotech London, 26 Store St, Bloomsbury, London WC1E 7BT



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Sotech are committed to delivering enduring façade solutions that are safe, innovative and market leading in design and manufacturing.

#### **3** / SOTECH - COMPANY MISSION



We are dedicated to supporting each other and being there for one another, collaborating with our partners to bring a project from concept to life.

> Through innovation and testing we ensure our systems meet all regulations and standards, providing confidence to the specifier and end user.

We are committed to fairness and doing things right.

We have the drive and passion to go the extra mile to delight customers and stand out from the rest, building lasting relationships with our partners.

WE GO ABOVE AND BEYOND

WE ARE ONE TEAM

WE HAVE INTEGRITY

WE ARE SAFE HANDS

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## Our Mission: Innovation, quality and manufacturability at our core.

Our mission is to provide safe, sustainable façade solutions with innovation, quality and manufacturability at our core to be the best at what we do.



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# Quality First Approach

WITH OVER 40 YEARS OF EXPERIENCE IN THE FAÇADE CLADDING INDUSTRY, SOTECH IS A LEADING DESIGNER AND MANUFACTURER OF ENGINEERED METAL FAÇADE CLADDING AND ARCHITECTURAL FABRICATIONS.

Sotech has provided Euroclass A1 and A2-s1,d0 faccade cladding solutions to every major city across the UK and Ireland. Receiving widespread intentional recognition by being specified for and supplying projects in Europe, Middle East and Asia. This is a testament to the skill, commitment and loyalty of our team.

Sotech pride themselves on being recognised as the safe hands in the industry, committed to providing enduring façade solutions that are safe, innovative and market leading in design and manufacture. The evidence of this is the volume of large-scale fire tests successfully completed in the UK and UAE to BS8414-2 standards, internationally recognised and classified to BR135.

Optima façade systems have undergone testing for wind serviceability, safety, air permeability and water penetration. These tests have been witnessed and certified by CWCT.

As façade cladding experts, Sotech's team of specialists share industry knowledge generously, working closely with architects, specifiers, fire consultants, main contractors and installers. We go the extra mile to design and manufacture systems to the highest standards and enhance the reputation of façade cladding in the industry.

Sotech designs products to be as environmentally friendly as possible, so far as is reasonably practicable, by sourcing raw materials from responsibly managed and environmentally aware organisations, maximising recovery of process wastes and including recycled materials in both product and packaging.

Sotech ensures the highest standards, with products holding EPD certificates and Optima systems being chosen for numerous BREEAM-rated projects.

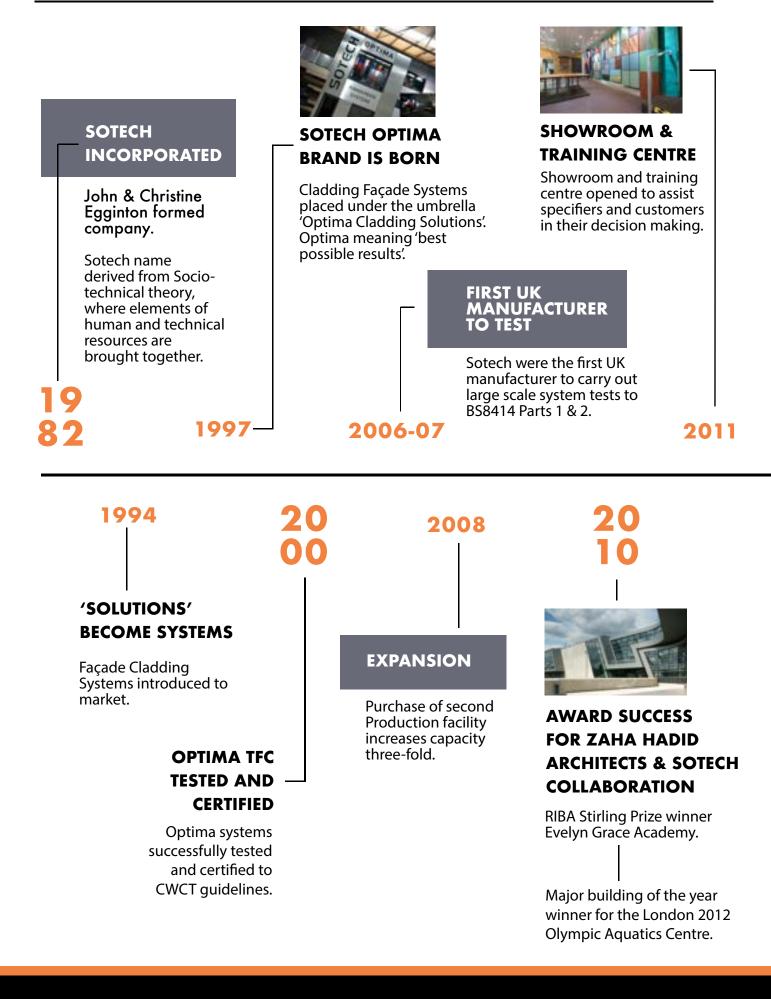
Additionally, Sotech prioritises employee well-being, meeting ISO45001:2018 Occupational Health and Safety Management System requirements for comprehenisve safety measures.



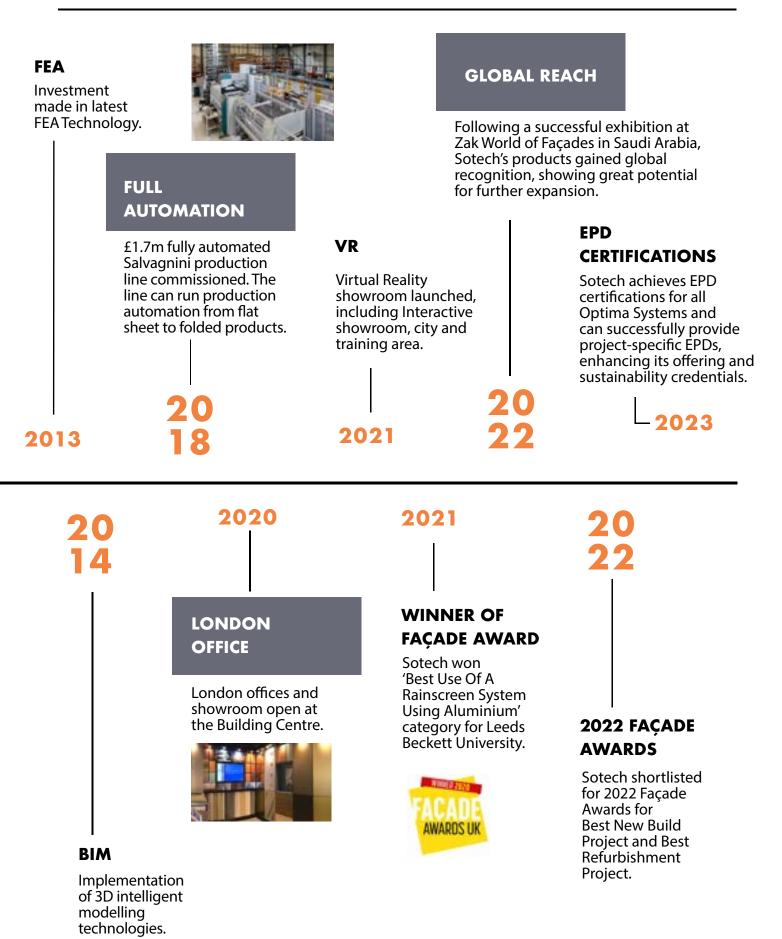
Sotech prioritise top-quality service, strictly following international standards ISO9001:2015 for product and service quality assurance. Committed to sustainability and complying with global regulations, Sotech also meet ISO 14001:2015 environmental standards, ensuring responsible practices.

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## Innovation Led Manufacturing

TO IMPROVE EFFICIENCY AND PRODUCTIVITY, SOTECH INVEST IN THE LATEST MANUFACTURING MACHINERY AND TECHNOLOGIES.

Specifying a façade system is like trying to solve a puzzle; factors like size, strength, substructure, appearance, windload and other environmental conditions all need to be considered and negotiated in order to find the right solution for your project. At Sotech, our technical expertise and years of industry experience mean that we can work with you to provide that solution and successfully make your vision a reality.

Sotech can provide BIM objects to support a project throughout the whole of its lifecycle, ensuring data-rich information is easily accessible to clients.

Conducting extensive research and testing using Finite Element Analysis software (FEA) to theoretically test how different panels will react to certain loads or conditions provides assurance that the façade system selected is safe and secure when facing adverse conditions or large amounts of pressure.

Working with state of the art CAD software including Solidworks, Revit and Inventor, Sotech adopts flexible manufacturing to suit your requirements.

Our manufacturing facilities incorporate some of the very latest and most technologically advanced machinery, including a number of CNC pressbrakes (folding millimetre perfect parts up to 6M long, which is larger than the current industry standard), a rapid automated punching machine (producing bespoke shapes and perforated blanks to a high tolerance), a 12M CNC router (cutting composite, solid material blanks and intricate shapes with a smooth finish), along with a fully automated production line that turns flat metal sheets into finished panels in seconds.

Without Sotech's skilled and highly-trained workforce, the company's success would not be possible. Sotech provides employees with the opportunities to master innovations and become leaders and experts in their field. Continuous focus on employees' development ensures that they reach their full potential. It also improves employee satisfaction, efficiency, productivity and leads to safe, quality products.



## Sustainability

Sotech believes we must help build a world that will improve the lives of future generations. We are aiming to achieve The Net Zero Carbon Buildings Commitment 2030 through our supply chain, and continuously strive to find innovative ways to meet these targets for a more sustainable future.

## Sustainable principles

- Reduce, Reuse, Recycle: The principle emphasises minimising waste by reducing consumption, reusing materials whenever possible, and recycling materials to extend their lifecycle.
- Renewable Energy Adoption: Prioritise the use of renewable energy sources such as solar and reduce dependence on finite fossible fuels and decrease greenhouse gas emissions.
- Resource Efficiency: Optimise the use of resources by employing efficient technologies, processes, and practices to minimise waste and maximise output.
- Social Equity: Ensure fair treatment, opportunity, and participation for all individuals and communities, addressing social inequalities and promote inclusive decision-making processes in sustainable development initatives.
- Long-terms Planning and Resilience: Emphasising long-term thinking and planning that considers the needs of future generations, building resilience to envionmental, social, and economic challenges through adaptive strategies and policies

To achieve these objectives and improve performance, we have implemented and accredited an environmental management system to meet the requirements of ISO 14001:2015.

Overall 99.5% of ALL materials supplied by Sotech are fully recyclable – with no loss of quality.

Bournemouth University has a BREEAM rating 'Excellent' for its environmental credentials.

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# Sotech's Virtual World

SotechVR gives its users another way to view Optima systems, bridging the gap between seeing the system on a web page and being physically at an office with a panel in your hand.

The user can pick up and examine Sotech's full range of cladding systems in virtual reality, change the panel colour and finish, and make informed decisions for their next façade cladding project using SOTECHVR.

## ACCESS SYSTEM INFORMATION IN THE VR SHOWROOM

While inspecting each Optima system you can access system information including fire safety certification, CWCT testing information, case studies and downloads.

## CHANGE THE PANEL COLOUR AND FINISH IN THE VIRITUAL CITY

Whilst exploring the immersive 'Sotech City', change the panel's finish or material, selecting from our wide range of supply partners.

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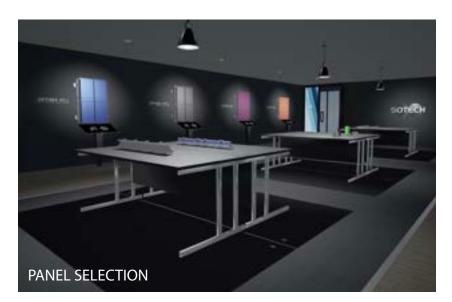
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## LEARN HOW TO SAFELY INSTALL THE OPTIMA PANELS

Learn how to safely install the Optima façade systems through the avatar guided step by step training, including rail assembly and panel installation sequence.

SOTECHVR is available to view in 3D on your PC or on a VR headset.





Examine Sotech's full range of Optima systems, select the material and finish of your choice, learn about the benefits of the Optima range of façade cladding and much more.



Visualise your project on a highrise and lowrise building, change the material and panel type.



Change the time of day to see how shadows fall on the building in the morning and the evening, allowing you to visualise how the buildings will appear in real time. Change the weather conditions to see how the systems will look in different environments.

## Internationally Recognised Large Scale Fire Testing

SOTECH FAÇADE CLADING SYSTEMS ARE TESTED TO BS8414-2

BS8414-2 refers to the fire performance of external cladding systems and is the test method for non-load bearing external cladding systems fixed to and supported by a structural steel frame.

Offering a full range of Euroclass A1 and A2-s1,d0 materials, and with the recent improvements and developments to the systems, we can now offer true Euroclass A1 solutions, complete with mechanical fixing methods.

Sotech have partnered with customers to carry out project specific tests on different backing structures and build ups. The process is straight forward - the technical team at Sotech will review the specification document and advise the best possible buildup of individual parts and highlight potential risks, issues and opportunities. The project manager responsible will organise a full scale test at one of the facilities around the world (including booking in the test, arranging shipment of all necessary materials and organising the required personnel for the test). Once the test has been successfully completed a certificate will be presented to show that the build-up has passed the BS8414-2 fire safety test and meets the requirements of BR135 classification.

Sotech's commitment to authentic engineering capabilities has been witnessed over several years in the testing and development of products, with initial testing completed in 2006 and the most recent completed in 2020. Testing will continue as newly developed standards are published.



## **Certificates:**

### Optima FC+



## Optima TFC+

BR135 Classification report

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BS8414-2 Fire Performance Report

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BR135 Classification report



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## Optima Edge



#### BR135 Classification report

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BS8414-2 Fire Performance Report



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## **CWCT** Testing

SOTECH'S OPTIMA SUITE OF FAÇADE SYSTEMS HAVE BEEN SUCCESSFULLY TESTED IN LINE WITH CWCT STANDARDS.



CWCT is a leading provider of information and guidance in the field of façade cladding and glazing.

Its 'Standard for systemised building envelopes' provides guidance for specifying building envelopes and incorporates various performance criteria.

This covers Air Permeability, Water Penetration, Wind Resistance (Serviceability & Safety) and Soft & Hard Body Impact Testing.



### Wind Pressure Test

Suction & pressure test probes are applied to the panels and positive and negative pressure applied.

Water is sprayed continuously and the aircraft engine provides direct wind force. This test measures the amount of water that penetrates the façade system.

Hard Body Impact Test A series of impacts using a solid steel ball.

**Dynamic Test** 



#### Soft Body Impact Test

A series of impacts using a 50kg leather bag of glass spheres.





## **Certificates:**

CWCT Certificate, Optima FC+





CWCT Certificate, Optima Edge

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WINDOW a CLADDING

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#### CWCT Certificate, Optima XPC

WINDOW CLADON

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# THE FLAT EDGE FAÇADE

INTRODUCING A SECRET FIX FAÇADE WITH A FLAT PANEL APPEARANCE AND A CLEAN, CRISP EDGE. 06



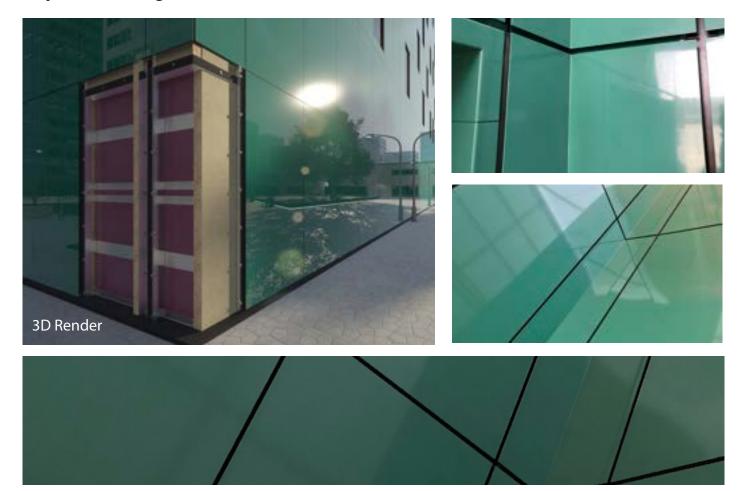
# OPTIMA EDGE

Optima Edge took inspiration from our innovative FC+ secret fix hook on façade model. Taking the very best of the FC+ façade, the team made significant modifications to give the new system a floating panel appearance. The panel face has no visable folds and provides a clean, crisp edge.





### Optima Edge in Sotech's virtual world



### Key system benefits:

- The panel face has no folds and provides a clean edge appearance.
- The panel side returns could be finished in a different colour to the panel face to give a contrasting colour.
- Engineered to integrate with all other building façade elements.
- System is available in 4mm aluminium with Sotech's bespoke carrier design.

- Mechanical fixing methods and no use of adhesives, providing true A1 and A2 cladding systems.
- Fire tested to BS8414-2:2020, and classified to BR135 for high rise buildings.
- Independently tested and certified to meet CWCT's rigorous specifications for façade cladding.
- NBS specification available, tailored to your project.



# SUPER TOWER IN OPTIMA FC+

THE ULTIMATE SECRET FIX HOOK ON FAÇADE SYSTEM. "HOTEL SUPER TOWER" COMPLETED IN 5.5M PANELS, 6,500M2 3MM ALUMINIUM 3103 H14 AND 6063 T6 EXTRUDED ALUMINIUM WITH FEATURE FINS.





## **OPTIMA FC+** FC+ is tailored to meet diverse material requirements and project timelines. Offering a supperior **SECRET FIX HOOK ON FAÇADE**

FC+ is tailored to meet diverse timelines. Offering a supperior approach to traditional cladding methods, the Optima FC+ system not only enhances the functionality and aesthetic of your building but also ensures superior performance longevity.



questionnaire.



### Featured projects in Optima FC+



## Key system benefits:

- Offers a sleek, uninterrupted façade appearance that is free from visible fixings, maintaining the benefits of a drained and ventilated façade.
- Features a labyrinth-jointed series of panels creating an effective weathershield.
- Engineered to integrate with all other building façade elements.
- Mechanical fixing methods and no use of adhesives, providing true A1 and A2 cladding systems.

- Fire tested to BS8414-2:2015 and classified to BR135 for high rise buildings.
- Independently tested and certified to meet CWCT's rigorous specifications for façade cladding.
- NBS specification available, tailored to your project.



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# 7 SHADES OF BLUE IN OPTIMA TFC+

A DISCRETE FIX CASSETTE FAÇADE SYSTEM IN 2MM ALUMINIUM WITH A HIGH GLOSS FINISH GIVING THE APPEARANCE OF GLASS.



## **OPTIMA TFC+** DISCREET FIX FAÇADE SOLUTION

This façade cladding solution is a cost effective alternative to traditional secret fix cladding. The system features discreet wafer head fixings, seamlessly integrated into vertical panel recesses and colour-matched to your façade. Precision panel sizing and shaping, achieved through advanced manufacturing processes, guarantee a flawless aesthetic.



Sotech can provide warranties for all of its products and systems, subject to questionnaire.



### Featured projects in Optima TFC+



### Key system benefits:

- Employs discreet fixings in vertical panel recess, maintaining the benefits of a drained and ventilated façade.
- Features a labyrinth-jointed series of panels creating an effective wethershield.
- Engineered to integrate with all other building façade elements.
- Mechanical fixing methods and no use of adhesives, providing true A1 and A2 cladding systems.

- Fire tested to BS8414-2:2015 and classified to BR135 for high rise buildings.
- Independently tested and certified to meet CWCT's rigorous specifications for façade cladding.
- NBS specifications available and can be tailored to your project needs.



# DEVELOP A BESPOKE, UNIQUE APPEARANCE WITH OPTIMA XTR

A MIXTURE OF COLOURS AND PROFILES WERE USED ON THIS PROJECT PROVIDING A COMPLETELY UNIQUE APPEARANCE BUT STILL OFFERING A TOUGH EXTERIOR, PROTECTING THE FAÇADE FOR YEARS TO COME.





## OPTIMA XTR EXTRUSION TAILORED TO YOUR BESPOKE REQUIREMENTS

XTR Contour extrusions are specialised extrusions that are crafted from durable aluminium and can be developed into intricate shapes, precisely customised to fit your projects unique requirements. These extrusions seamlessly integrate with an extruded aluminium support framework, allowing for horizontal, vertial, or diagonal installation options.



OPTIMA XTR PLANK SIMPLE AND ELEGANT EXTRUDED PLANK



OPTIMA XTR CASTELLATED ADDING INTRICATE TEXTURE TO MODERN FAÇADE



OPTIMA XTR CUBE TRANSFORMING FAÇADES WITH GEOMETRIC PATTERNS



OPTIMA XTR CONCAVE ELEVATE YOUR FAÇADE DESIGN WITH CURVATURE EXCELLENCE



OPTIMA XTR WAVE WHERE CURVES MEET DESIGN MAGIC



OPTIMA XTR TRIGON TRIGON XTR EXTRUSION MODERNISES FAÇADES



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### Featured projects in Optima XTR



## Key system benefits:

- Create eye-catching designs tailored to your specific preference.
- Suitable for use in all areas, including lowlevel vulnerable areas.
- Incorporate various commercial finishes on one elevation, providing an almost unlimited array of colours and shapes.
- Much lighter than traditional terracotta material making it easier to work with and more cost-effective.

- Profiles are tailored to meet diverse design aesthetics and performance needs.
- Project specific CWCT available.
- NBS specifications that can be tailored to your project needs.



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## THE SCALE OF THINGS

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THREE DIFFERENT GOLD ANODISED FINISHES WERE SELECTED ON THE SHINGLES TO CREATE A RANDOM SCALED TEXTURE, FLEXIBLE ENOUGH TO ACCOMMODATE THE PRACTICAL DEMANDS OF A MODERN BUILDING. THE PROJECT INCLUDED A PERFORATED BAND TO ASSIST AIRFLOW.



# OPTIMA SHINGLES

Shingles require no bracket and rail carrier system, instead they fix directly to a suitable backing wall using stainless steel clips, ensuring a secure hold. This method of installation fosters a seamless appearance, as each shingle overlaps the next, concealing the fixing points.



Sotech can provide warranties for all of its products and systems, subject to questionnaire.



### Featured projects in Optima Shingles



### Key system benefits:

- The shingle system consist of interlocking shapes that are firmly held in place by stainless steel clips, ensuring durability and stability.
- Simple tophats allows for the creation of airspace in front of the primary structure, aligning with the direction of the shingles these shingles can then be securely fastenered back to the tophat.
- NBS specification available and can be tailored to your project needs.

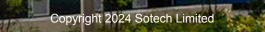
# UNLIKE ANY OTHER

WE UNDERSTAND THAT NOT EVERY VISION IS STRAIGHT FORWARD AND ARE HAPPY TO WORK CLOSELY WITH OUR CUSTOMERS TO HELP EVOLVE AN ARCHITECT'S CONCEPT DESIGN INTO A MANUFACTURABLE, SAFE, BESPOKE SYSTEM.

SOTECH HAVE PRODUCED MANY BESPOKE PROJECTS, EACH ONE EYE CATCHING IN ITS OWN UNIQUE WAY.

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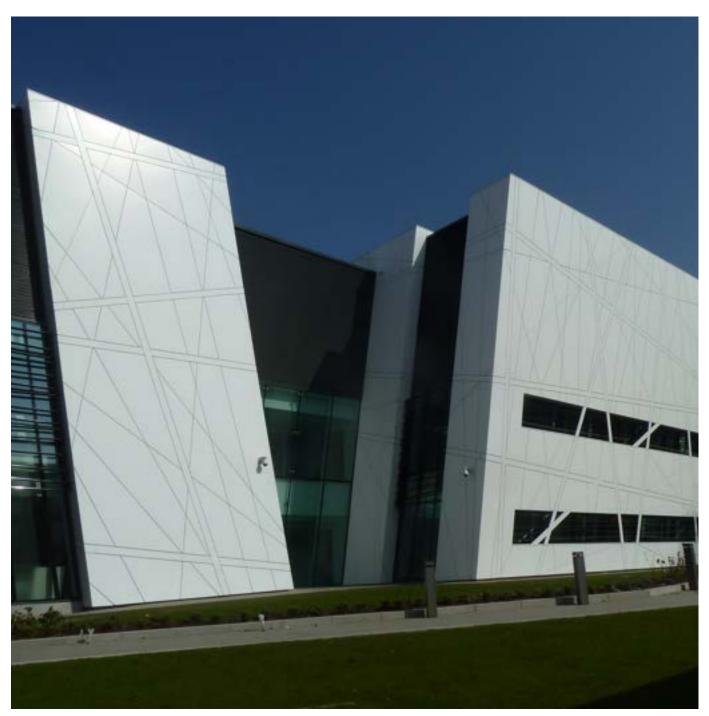






# OPTIMA BESPOKE

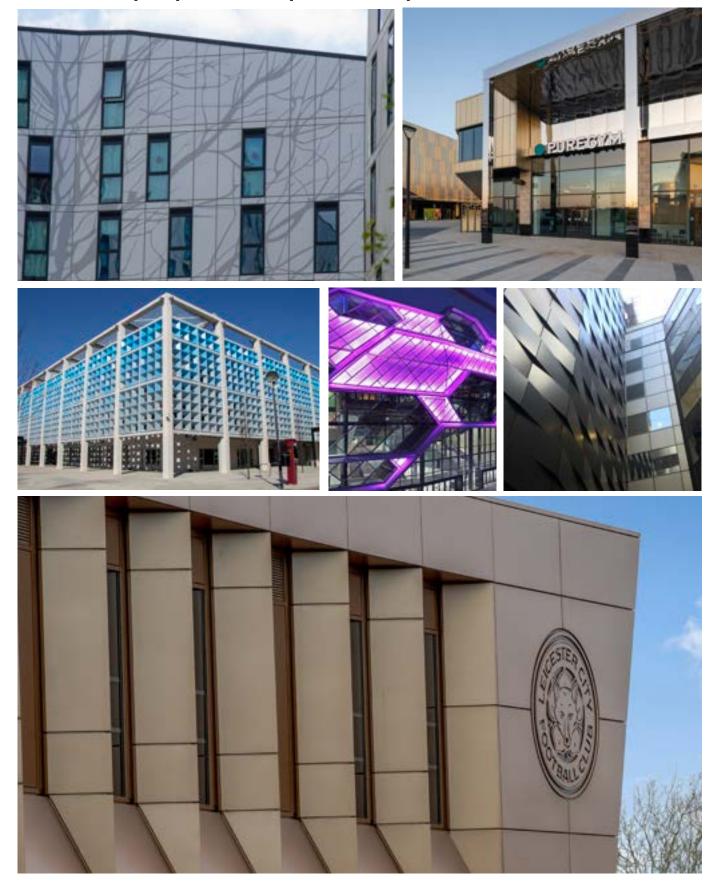
When the design doesn't fit the mould, we can create the mould. For novel visions, with a totally bespoke design, the expert Sotech team can bring an architect's concept or design to life, in a manufacturable, safe, bespoke system. Sotech have produced many bespoke jobs, each one eye catching in its own unique way.



Sotech can provide warranties for all of its products and systems, subject to questionnaire.



### Featured projects in Optima Bespoke





### MATERIALS

Sotech's Optima systems are available in a range of A1 and A2 materials. There is also a huge range of finishes available. Please speak to an expert member of our team to explore the perfect build up for your next project.



### COPPER

Copper stands as an A1 non-combustible material, boasting traditional craftsmanship values and excelling in durability and resistance to corrosion.

Known for its architectural versatility, copper lends a distinctive aesthetic appeal while requiring minimal upkeep costs, thanks to its inherent ability to form a self-protective patina.

As copper naturally develops a patina over time, its appearance evolves gracefully. Moreover, the patination process can be accelerated through chemical treatments, offering a range of shades to suite various design preferences.

With a recyclability rate of 99.9% and a significantly reduced energy footprint for recycling compared to its original manufacturing process, copper embodies sustainability.





#### STAINLESS STEEL

Stainless steel panels maintain their appearance effortlessly, owing to their exceptional resistance to atmospheric and pure water environments.

Stainless steel offers a variety of patterns achieved through texturing or rigidizing ferrous and non-ferrous metals, enhancing strength in all directions.

These textures diffuse light patterns, imparting optical flatness to sheet metals and eliminating the undesired oil-canning effect. Deep textured metals exhibit resistance to dents and scratches, resulting in minimal maintenance costs.

Stainless steel's ease of maintenance, and full recyclability further underscore its appeal for architectural applications.



#### ZINC

Zinc is renowned for its durability, malleability, and corrosion resistance, attributed to its naturally forming, self-protecting patina.

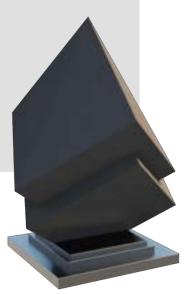
Zinc requires minimal maintenance, offering virtually maintenance-free solution. This makes it suitable for both traditional and contemporary architectural designs.

Zinc composite material (ZCM) presents a unique characteristic wherein its finish is enhanced by the effects of air and the elements.

Available in a natural blue-grey tone and various other shades, ZCM's pre-weathered finish matures over time, developing a natural patina that renders scratches and imperfections virtually undetectable.

With minor cleaning and maintenance needs over its lifespan, the surface of zinc ensures long-lasting aesthetic appeal and practicality of architectural applications.







#### ACP

#### A1 aluminium composite panels represent a

breakthrough in fire safety and performance, meeting the highest global standards for non-combustibility. Achieving Euroclass A1 fire classification according to DIN EN 13501-1, these panels ensure minimal smoke development and maximum safety in the event of a fire.

Engineered for versatility and durability, A1 aluminium composite panels offer exceptional weather resistance, impact resistance, and superior flatness. Their front surface includes fluoropolymer resin, providing unmatched protection against weathering, UK radiation, corrosion, and colour fading.

A1 aluminium composite panels contribute to environmental sustainability by being fully recyclable. They also enhance energy efficiency by providing effective thermal insulation.





### ANODISED

Anodising represents an A1 non-combustible finish, achieved through an electrolytic passivation process that enhances the thickness of the natural oxide layer on metal surface.

With meticulous quality control over both the aluminium substrate and the surface treatment, anodising achieves a consistent and uniform appearance, ensuring homogeneity throughout.

The anodising process allows for the incorporation of colours, textures and patterns into the anodic film, enriching the inherent metallic aesthetics while preserving the superior UV resistance of the façade cladding.

Aluminium inherent recyclability, minimal maintenance requirements, and proven lifetime performance further underscore its value as a sustainable and enduring material choice.



### PRE-PAINT ALUMINIUM

Pre-painted aluminium presents itself as an excellent choice for extensive façade cladding projects, celebrated for its robustness and longevity.

Due to its impressive UV and weather durability, pre-painted aluminium offers flexibility in customisation, enabling the creation of innovative shapes and designs.

Offering a diverse array of colours and surface finishes, pre-painted aluminium ensures a uniform paint layer and consistent colour, mitigating shade discrepancies between panels while boasting a Euroclass A1 Fire Rating.

Pre-painted aluminium embodies sustainable design principles, as the aluminium coating process is environmentally friendly and allows for seamless recycling without compromising quality.





#### POLYESTER POWDER COATED ALUMINIUM

PPC represents an A2 limited combustibility finish. Applied as a free-flowing, dry powder to metal façade panels, PPC undergoes electrostatic application and subsequent curing under head to form a protective 'skin'. This process ensures thorough coverage, even on intricate panel shapes.

Compared to liquid coatings, powder coating can achieve a thicker and harder finish, providing exceptional abrasion and corrosion resistance. This durability ensures longevity, making PPC façade cladding a reliable choice for architectural projects.

PPC offers versatility in design, with a selection of 200 standard RAL colours and various special effects. Whether mimicking the appearance of anodised aluminium or natural stone, or introducing unique textures, PPC a distinctive touch to any project, elevating its aesthetic appeal.







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