



ROOFING AND CLADDING TECHNOLOGY



METALBOX TECHNOLOGY
ROOFING AND CLADDING SOLUTIONS

Whatever the metal used, our role is to enable increasingly creative and complex design concepts to be fulfilled.



Metalbox Technology's local sales and technical team provides an unmatched service to architects, developers, clients and installers in relation to all metal roofing and façade systems

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Whether you need advice in respect of sustainability or aspects of physical performance, we can assist at any stage of the design process.

COMPANY BACKGROUND

Metalbox Technology was established to service the needs of architects and designers by providing technical support across a range of hard metals used in construction. These products have a noble heritage and are being used on an increasingly widespread basis to provide roofing, rainscreen and façade systems in highly distinctive, contemporary designs. Metalbox Technology is dedicated to promoting sustainable construction and is keen to promote the numerous environmental benefits that such products have to offer and protection of natural resources. Whatever the metal used, our role is to enable increasingly creative and complex design concepts to be fulfilled.

Our service includes advice on:

- **Concepts and designs**
- **Project costing**
- **Engineering system design**
- **Supply**
- **Installation***
- *including individual specifications
- **Fire resistance**
- **Cover widths, pitches and spans**
- **Weather resistance**
- **Thermal and acoustic performance**
- **Dimensional stability**
- **Waste water and other regulations**
- **Wind loading**
- **Environmental performance and recycling**
- **Maintenance**
- **Warranties**

We have many years of experience understanding the challenges presented by diverse building styles, and our aim is to meet the most demanding requirements in order to see our products used in the creation of structures which not only have aesthetic value but are cutting-edge.

Advantages of using Metalbox Technology

- Use only contractors trained in the use of systems installed and who continue to meet strict criteria which are continuously monitored
- Ensure systems are designed for optimum performance, practical installation and cost-effectiveness
- Provide advice on all aspects of detailing
- Ensure on-site inspections are properly carried out
- Procurement/distribution

In terms of roofing applications, we provide tested solutions using traditional systems but also support innovative ones such as the new Met-Seam product which is also available in steel and aluminium.

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PRODUCTS & SERVICES

Metalbox Technology's local sales and technical team provides an unmatched service to architects, developers, clients and installers in relation to all metal roofing and façade systems. Recommendations provided ensure that materials from some of Europe's leading manufacturers will be installed to the highest standards, in conjunction with timely procurement from all parties in the supply chain.

Products for which support is provided are zinc, copper, stainless steel, aluminium sheet and coils. Manufactured by companies with a history of innovation and market leadership. They offer proven performance in all types of building construction projects throughout the world and offer durability, high performance, low maintenance and exceptional design-life value. Many specific product benefits have resulted from collaboration between individuals employed by Metalbox Technology and prominent experts in UK construction.

Our extensive experience of working alongside leading UK architectural practices has seen us involved in projects in the education, health, leisure, municipal, sport, retail, defence, religion, general commercial and housing sectors. From initial design stage through budget costing, Metalbox Technology can help to meet the procurement, performance and installation criteria of all parties in the supply chain. Working with carefully selected installers, we ensure successful completion combining façade and roofing systems in many instances to provide a long lasting, trouble-free, environmentally sustainable solution for the envelope of your building.

Following the increasing specification of hard metals in the Middle East, our aim is to develop local expertise in order to promote specification and installation to UK Building Standards. This relates in particular to aspects of design such as fire resistance, waterproofing, differential expansion and standards of accreditation provided by the British Board of Agrément, Building Research Establishment, PassivHaus and similar organisations.

The extensive range we cover enables virtually any cladding, rainscreen or roofing requirement to be met, including those to bespoke requirements. With an unparalleled choice of contemporary and traditional systems perforated, profiled, woven, corrugated, trapezoidal and even backlit facades can be used to complement materials such as glass, stone, wood and concrete in the creation of distinctive individual styles. The precision involved in the fabrication of special shapes enables sweeping arched roofs to be created while organic, three-dimensional patterns produce facades with an expressive presence.

Systems are designed for compatibility with the latest design styles and backed by European Building Performance and Environmental Standards. Whether you need advice in respect of sustainability or aspects of physical performance, we can assist at any stage of the design process.

Combining performance with aesthetics in a growing range of pre-weathered colours

ZINC

Design

Zinc offers a variety of façade and roofing solutions in a unique range of colours. This gives the designer scope to produce iconic buildings using a metal which is suitable for roof pitches from 3° - 90°. Architects frequently comment on how well zinc works with a wide variety of primary building materials such as wood, brick and concrete as well as a plethora of glazing finishes. VMZINC products have been the first to be backed by EU standards of certification - by the British Board of Agrément (BBA) and Building Research Establishment (BRE).

Aesthetics

Finishes available extend from pre-weathered mid and dark grey to the subtle shades of red, grey, blue and brown. All offer the benefit of long-term colour retention and distinctiveness. Natural zinc can also be supplied to provide a traditional appearance which relies on the development of a natural patina over time. The charcoal-coloured colour lends itself to highly structured architecture and in particular designs featuring large expanses of glazing.



Auditori L'Atlantida, Vic, Spain
Quartz-Zinc



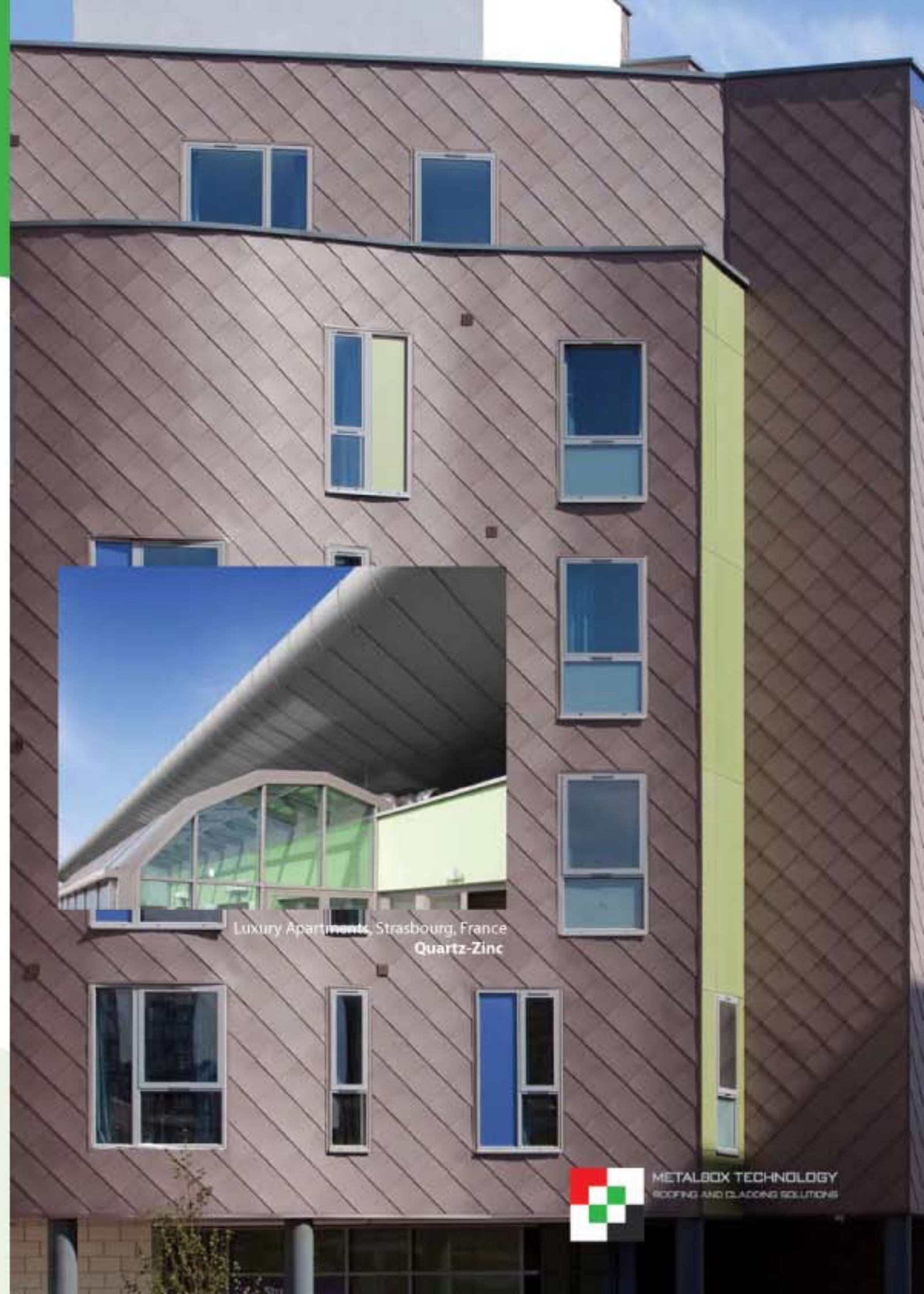
Albany Entertainment Centre, New Zealand
Quartz-Zinc Plus / Anthra-Zinc

Economic performance

Zinc has been used in construction for over 200 years and is renowned for a design life which can exceed 100 years. Its low maintenance requirements and self-protecting surface patina make it extremely cost-effective in comparison to other roofing and cladding materials.

Green credentials

Zinc is ideal for buildings designed for high environmental sustainability, most notably in respect of energy used in production (whether using recycled material or newly extracted ore). Apart from the low energy levels used to manufacture rolled zinc, standing seam, interlocking panel and overlapping panel systems are renowned for their durability. Integrated solar collectors can be installed within roofs, thereby enhancing overall visual appearance, reducing risk of thermal bridging and increasing insulation performance.



Luxury Apartments, Strasbourg, France
Quartz-Zinc



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A combination of high performance, aesthetics, distinctive colours and finishes

STAINLESS STEEL

Design

For roofing applications, stainless steel offers scope to install long spans of material which are also easy to solder. From the specifier's perspective it offers high performance in all conditions as well as light weight. Its use extends to areas in which other metals may not be recommended, particularly environments where exceptional corrosion resistance and non-combustibility are important.

Stainless steel also has excellent mechanical properties. The material's strength enables it to be used at thinner gauges so though its cost per metric tonne may be considered high it is invariably very competitive when comparing the cost per linear metre.

The development of nickel-free ferritic stainless steels has greatly enhanced interest in the metal as a façade and roofing material, having greatly reduced susceptibility to commodity market price fluctuations.

Aesthetics

The variety of colours and finishes available in stainless steel provides enormous design scope. The range extends from mirror-surfaced systems to bead-blasted surfaces of exceptional smoothness.

- Systems designed specifically to provide a unique mirror effect, exceptional surface uniformity and flatness
- Bead-blasted, etched surface
- Double-sided, patterned finish with a sandblasted appearance
- Glossy surfaces, designed for smoothness
- Permanent and durable matt appearance



John Lewis Cineplex, Leicester, UK
Stainless Steel

Economic performance

Stainless steel has very low maintenance requirements. The enhanced price stability of ferritic grades has also made cost forecasting far easier without compromising performance. Stainless steel also offers scope to use the same material for the roof and façade through specification of curved profiles.

Green credentials

Stainless steel systems are fully recyclable and, as with zinc, boast a high rate of recovery and reuse. The metal is inert and therefore suitable for use in conjunction with rainwater recovery and potable water systems. Its smooth surface prevents build-up of contaminants and as an alternative to lead it is less expensive and carries no environmental drawbacks.



South Liverpool NHS Treatment Centre
Liverpool, UK
Stainless Steel



METALBOX TECHNOLOGY
ROOFING AND FACADE SOLUTIONS

*A combination of centuries-old
tradition and contemporary
designs*

COPPER

Design

The use of copper now opens up a range of creative, design opportunities. Products are highly durable and provide striking natural surfaces using either base material, alloys or prefabricated elements. Copper roofs develop a unique beauty which continues to develop over time. To complete the package, a system of rainwater drainage components is also available.

Aesthetics

The manner in which copper ages provides the most striking feature of many buildings, reflected in the fact that it has seen use on many of the most iconic buildings throughout the world. Its recent upsurge in use, on projects such as the restoration of the Uffizi Gallery in Florence, owes much to EU standards such as EN 1172. Whether for façades, roofs or features and trims, the range we can supply provides a solution for most architectural styles, all offering lasting visual appeal. Modern copper systems can be moulded with ease for of adaptation to specific design requirements while pre-weathering and perforated façade systems have enabled the metal to be used to meet contemporary styles. Options include:

- ▶ Traditional bright metallic appearance which develops the classical, self-protecting patina, the effect of which changes according to light and shadow
- ▶ Pre-weathered and varied pre-patinated finishes
- ▶ Finishes with a brown oxide layer which creates a subtle and highly distinctive appearance
- ▶ Matt grey surface with copper strips which are tinned and surface-treated on both sides. The resulting surface takes on a distinctive appearance through weathering
- ▶ An alloy of copper and zinc which has an initial greenish-brown tone and ultimately takes on a dark brown anthracite colour
- ▶ An alloy of copper and tin designed to provide an element of refinement in façade design. Its oxidation process also changes to a dark brown anthracite colour
- ▶ Copper-aluminium alloy for facades, the surface of which matts very quickly before developing a striking, warm golden colour which changes little over time

Economic performance

Copper's longevity and minimal maintenance requirements are well known. As a roofing or façade system it can last for the lifetime of a building.

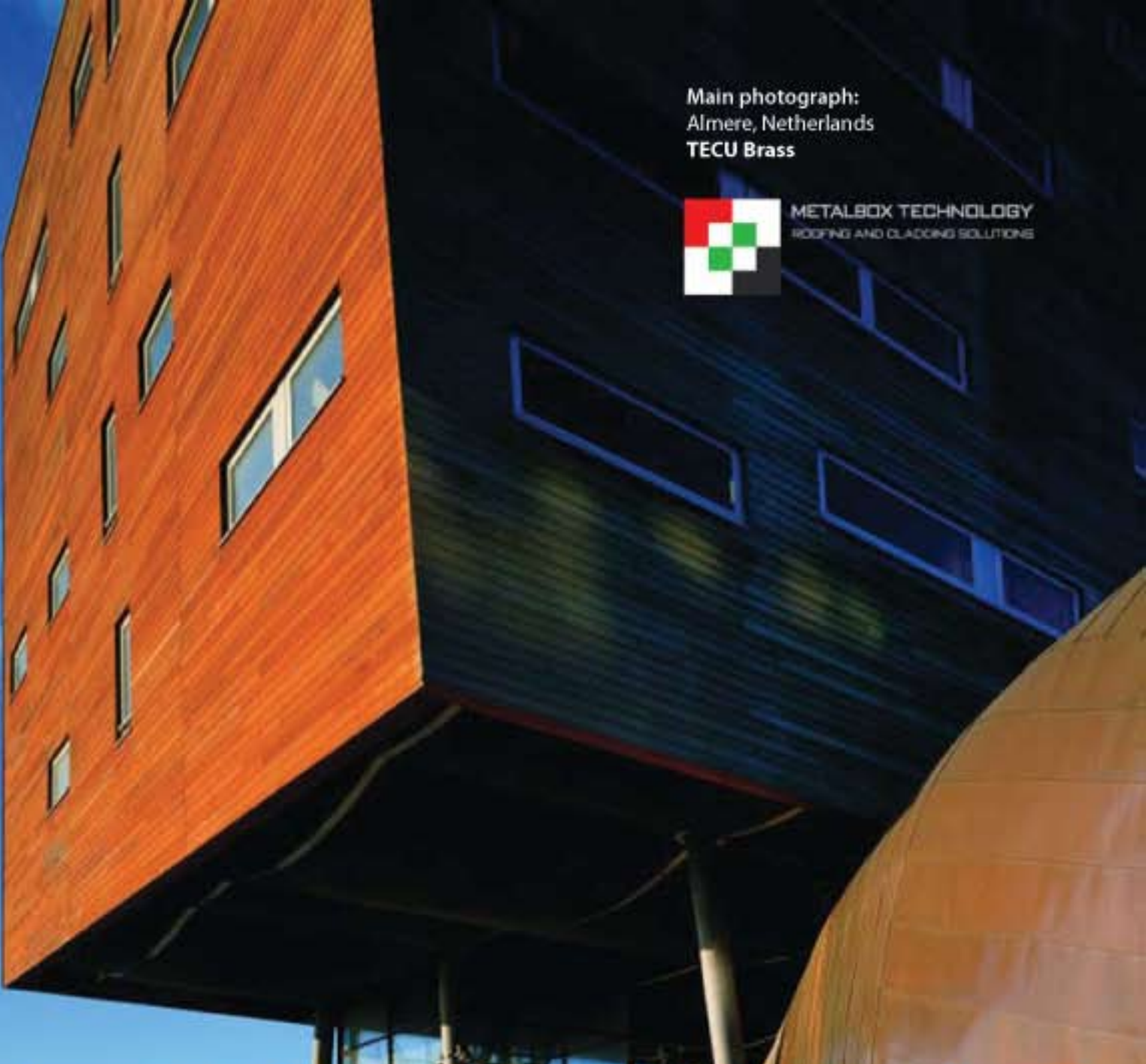
Green credentials

The complete recyclability of copper has created a worldwide industry in its own right. Electrolytic refining also now makes it possible to remove all impurities thereby increasing the degree to which natural resources can be protected. The energy needed to melt down re-used material is only a fraction of that used to extract metal from ore and our suppliers use environmentally neutral processing technologies.

Main photograph:
Almere, Netherlands
TECU Brass



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Shanghai Yefels, Creative Street
TECU Patina



Osnabrück
TECU Bond



RIMEX METALS GROUP

Design

Rimex has established itself as leader in the field of metal surface technology, having produced finishes on a variety of metals since 1959. With extensive manufacturing facilities in the UK, the USA, Australia and South Africa, Rimex services projects throughout the world and is partnered by Metalbox Technology in the Middle East.

Aesthetics

The Rimex selection of dramatic finishes includes:

- ▶ ColourTex®
- ▶ Patterned
- ▶ Mirror, brush, belt and satin polished
- ▶ Bead-blasted
- ▶ Patterned and impressed
- ▶ Custom designs



Dalton Institute, Cumbria UK
Black Mirror Stainless



Aloft Hotel, Docklands London
Green Granex Pagoda Stainless



Texas University
Green Granex Stainless



San Francisco Museum
Blue Crossfire Stainless

The wide variety of ColourTex® colours provide a distinctively different effect to that of standard metal systems while, in contrast, Granex® matt finishes provide differing degrees of reflectivity.

Economic performance

Random and symmetrical designs are modern and dramatic in appearance providing optical flatness for facades. Patterned finishes hide scratches and other impact damage and provide ideal anti-vandal surfaces.

Green credentials

As specialists in the creation of stainless steel systems, Rimex systems are highly recyclable so the environmental impact is significantly lower than it would be if production was purely from primary material.

RIMEX METALS GROUP

Main photograph:
City Centre Project,
Las Vegas
Granex Cambridge Stainless





ALIVA ENVELOPE DESIGN SOLUTIONS

Aliva is a company which specialises in the production, engineering and installation of any architectural concept for building envelope design. It is a market leader in ventilated facades and develops bespoke solutions based on specific requirements and challenges. A heavy emphasis on developing project-specific solutions has resulted in a vast catalogue of original designs which have been tried and tested on sites over 30 years. This experience is available to support specifiers in the creation of highly individual and original projects.

High profile projects include La Teatro Alla Scala Opera House and La Maggiore Polyclinic in Milan.



Standard and bespoke systems include:-

- ▶ Porcelain stoneware
- ▶ Glass
- ▶ Metal
- ▶ Extruded aluminium
- ▶ Klinker
- ▶ Natural stone
- ▶ Metal mesh

These can be complemented by an aluminium, zinc, copper / steel Met-Seam or traditional standing seam system.





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