

An aerial photograph of a large stadium with a distinctive, curved, metallic roof made of aluminum panels. The stadium is situated in a valley, with a city and a large mountain range in the background. A red and black curved line is overlaid on the top left of the image.

Kalzip[®] Systems made of Aluminium
Roof & Facade solutions

FASCINATING ROOFSCAPES AND VARIED FAÇADES

Ferry terminal Norderney (GER)
Product: Kalzip 65/...conical, RAL 7036
Architect: LOREK ARCHITEKTUR
Installer: B. Schlichter GmbH & Co. KG



KALZIP - THE ORIGINAL SINCE 1968

Kalzip is one of the leading suppliers of aluminium building envelopes. We have been producing roof and façade systems using state-of-the-art roll forming machines since 1968. To date, over 110 million square metres of Kalzip profiled sheets have been installed. With international sales offices, and a worldwide fleet of mobile production units, Kalzip is represented in almost every corner of the globe.

Kalzip systems meet the highest requirements in terms of building physics and design, creating roofs and façades with impressive functionality and fascinating appearances.

Building with Kalzip also means taking advantage of our many years of know-how.

For over 50 years, Kalzip has been pushing the boundaries of what is creatively feasible, offering sound technical experience and comprehensive planning support for architects and installers.

Discover the innovative and creative possibilities of Kalzip envelopes and be inspired by the versatile, durable system solutions for new builds and renovations.

WE METAL YOUR BUILDING®



Sustainable buildings with positive life cycle benefits

Kalzip is constantly developing sustainable new solutions. Reliability, safety, durability and innovation are the guiding principles in each phase of product development. To be truly considered 'green', buildings should make an active contribution to climate goals.

Buildings are increasingly required to achieve sustainability certifications and quality seals. These certifications evaluate all aspects of sustainable construction – i.e. ecological, economic and socio-cultural. The evaluation criteria also consider technology, processes, application and lifecycle costs.

Kalzip's products have undergone assessment in accordance with BRE, ECO* and FDES - the most important European building certification programmes. They represent a type-III environmental product certification according to ISO 14025 and are recognised and verified by independent examiners.

The development of Intelligent buildings is a growing international construction trend, which aims to deliver high-tech buildings with the highest possible standards of sustainability. Kalzip's sustainable building materials are an obvious choice in these applications.

The future belongs to these so-called 'blue technologies'. Along with the rest of the construction industry, Kalzip strives towards delivering buildings that not only meet international sustainability standards but set new global standards within themselves. Kalzip systems are the perfect choice for attaining this goal.

* European EPD, carried out by the Institution for Building and the environment (IBU e.V).



Institut Bauen
und Umwelt e.V.



Grossreuth underground station near Nuremberg (GER)
 Profile type : Kalzip FC 30/300 with special Sky-Print
 Architect: Berschneider + Berschneider GmbH

Aluminium – functional and durable



Kalzip's sustainability credentials come from aluminium itself – an abundant material that can be recycled any number of times. It can provide effective environmental building protection that can last for decades, helping buildings to retain their value. Kalzip products are made, for the most part, from recycled aluminium.

The recycled content of the aluminium coils used in production, both coated and uncoated, lies somewhere between 75% and 95%. This content can vary due to the availability of recyclable aluminium within the market.

Aluminium recycling

- The 'super (light) metal' of modern construction. It is durable, can be used in a variety of ways and, above all, can be recycled without any loss of quality. It therefore meets the highest ecological and climate-related requirements.
- Aluminium recycling refers to the re-use of aluminium waste in all forms, although in this context 'aluminium' is a generic term not only for pure aluminium, but also for its many alloys.
- Aluminium lasts several generations. When aluminium components are dismantled, this material can be recycled and re-used without any loss of quality. Choosing to use aluminium products therefore improves overall construction sustainability and modernisation.
- If aluminium alloys are collected and recycled in a single variety, the corresponding alloys can be recycled from the resulting melted aluminium without any reduction in quality.
- The greatest economic and environmental advantage of recycled aluminium is that the recycling process requires less than a tenth of the energy required for primary production of the same amount of aluminium.

In Europe, around **96%** of the aluminium which is used in buildings will be collected and recycled.

German Sustainable Building Council,
 from "The DGNB Certificate"

Kalzip Roof systems

- Kalzip Warm roof structures 7
- Kalzip Duo Plus 8
- Kalzip Vented roof Structures 10
- Kalzip Roof refurbishments 12
- Kalzip Solar solutions 13
- Kalzip NatureRoof 14
- Kalzip Roof accessories 15
- Kalzip Profiled sheets 16
- Kalzip Profile forms 17



Gare D'Orleans, Orleans (FR)
Product: Kalzip 65/400 RAL 9006
Architect: Jean-Marie DUTHILLEUL

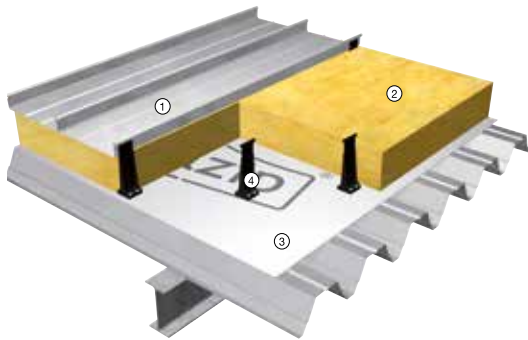
Kalzip Warm roof structures

Kalzip is a flexible, weather-resistant, and easy-to-install building system, with a light-weight construction. Available with extensive system components and accessories, Kalzip can offer a complete solution for building envelopes, which can easily be combined with other building materials. This results in unique buildings that are both visually and technically impressive.

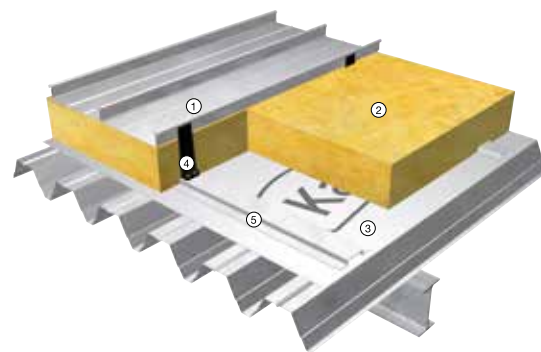
The benefits

- Suitable for all substructures
- Fast assembly that is largely unaffected by weather conditions
- Easily achieve extraordinary building shapes and geometries, thanks to XT freeform profiles
- Fixing-free roof cladding, thus no weak points due to fasteners
- Meets the requirements of Building Regulations
- Durable and sustainable, thanks to the use of recycled aluminium alloy
- No lightning protection is required, as the aluminium standing seam roof serves as a natural arrester. Superstructures of any kind must be checked separately

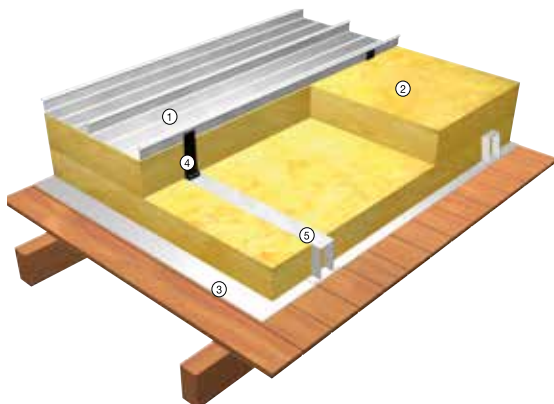
Kalzip Structural Deck Roof System



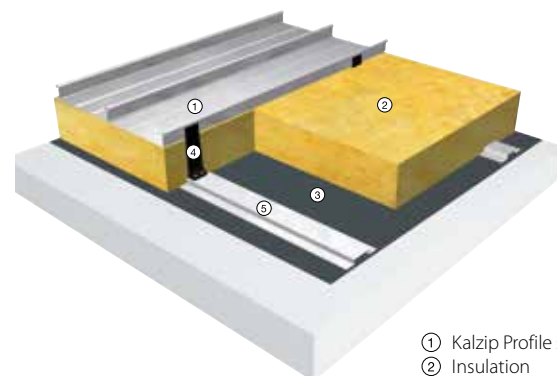
Kalzip Deck Roof System on purlins and trapezoidal steel liner



Kalzip Roof System on timber deck



Kalzip Roof System on concrete deck



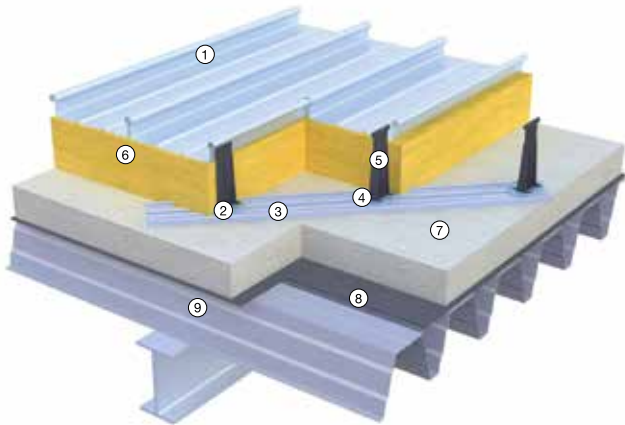
- ① Kalzip Profile sheet
- ② Insulation
- ③ Vapour Control Layer
- ④ Kalzip E clip
- ⑤ Low profile top hat section

Kalzip DUO PLUS

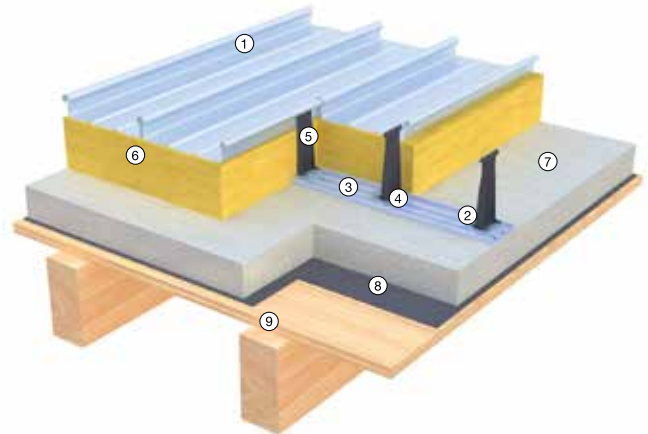
Excellent thermal insulation and sound reduction

- Virtually no thermal bridges – thus low thermal transmittance
- High thermal insulation - always meets the requirements of the current EnEV (Energy Efficiency Ordinance)
- Variable thermal insulation thicknesses
- Suitable for all E clip types and heights
- Excellent sound reduction values up to $R'w = 50$ dB (A), depending on the roof structure
- Lightweight
- Complete system from a single source
- Functional and coordinated system components
- Highly cost-effective and short assembly times due to prefabricated system components
- Suitable for substructures made of steel trapezoidal profiles, concrete, and wood

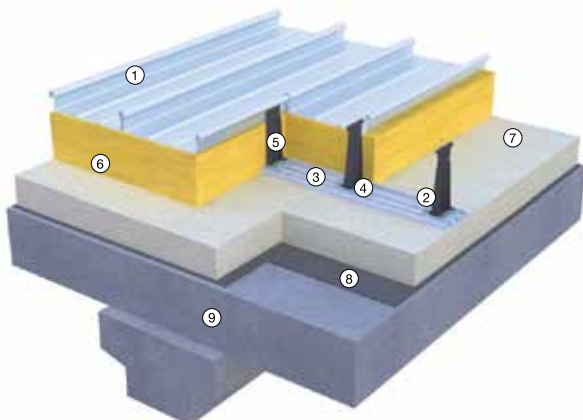
Kalzip DuoPlus on trapezoidal steel deck



Kalzip DuoPlus on timber/plywood



Kalzip DuoPlus on concrete substructure



- ① Kalzip profiled sheets
- ② Approved system fasteners
- ③ DuoPlus rotatable clip rail
- ④ E-Type clip adapter
- ⑤ Kalzip E-type clip
- ⑥ Insulation
- ⑦ High density thermal insulation layer
- ⑧ Vapour Control Layer
- ⑨ Substructure



Gyn ISM Malsdorf (GER)
Product: Kalzip 50/429 RV 6/8
Installer: Kohler GmbH & Co. KG

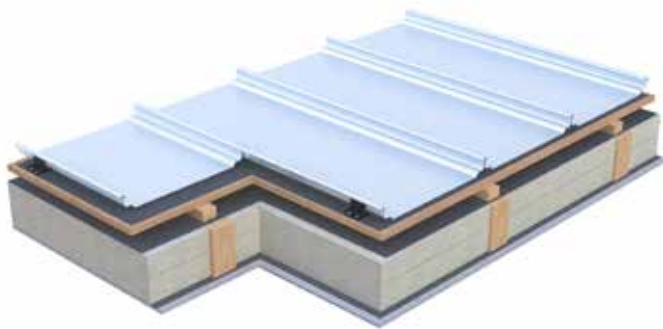
Kalzip Vented Roof Structures

Kalzip vented roof structures are cost-effective roof systems that are suitable for both new builds and renovation projects. The rear ventilation offers year-round thermal protection. We have suitable solutions available for all roof structures.

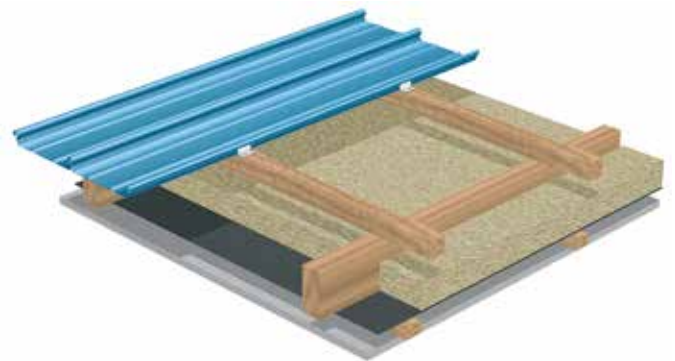
The benefits

- Economical alternative to bitumen roofing membrane and traditional roofing materials, such as tiles or slate
- Low maintenance and no up-keep costs thanks to the durable roof cladding
- Inexpensive overall package thanks to the coordinated system components and finishes
- Better building air quality thanks to ventilation
- Very low weight, even when combined with solar applications

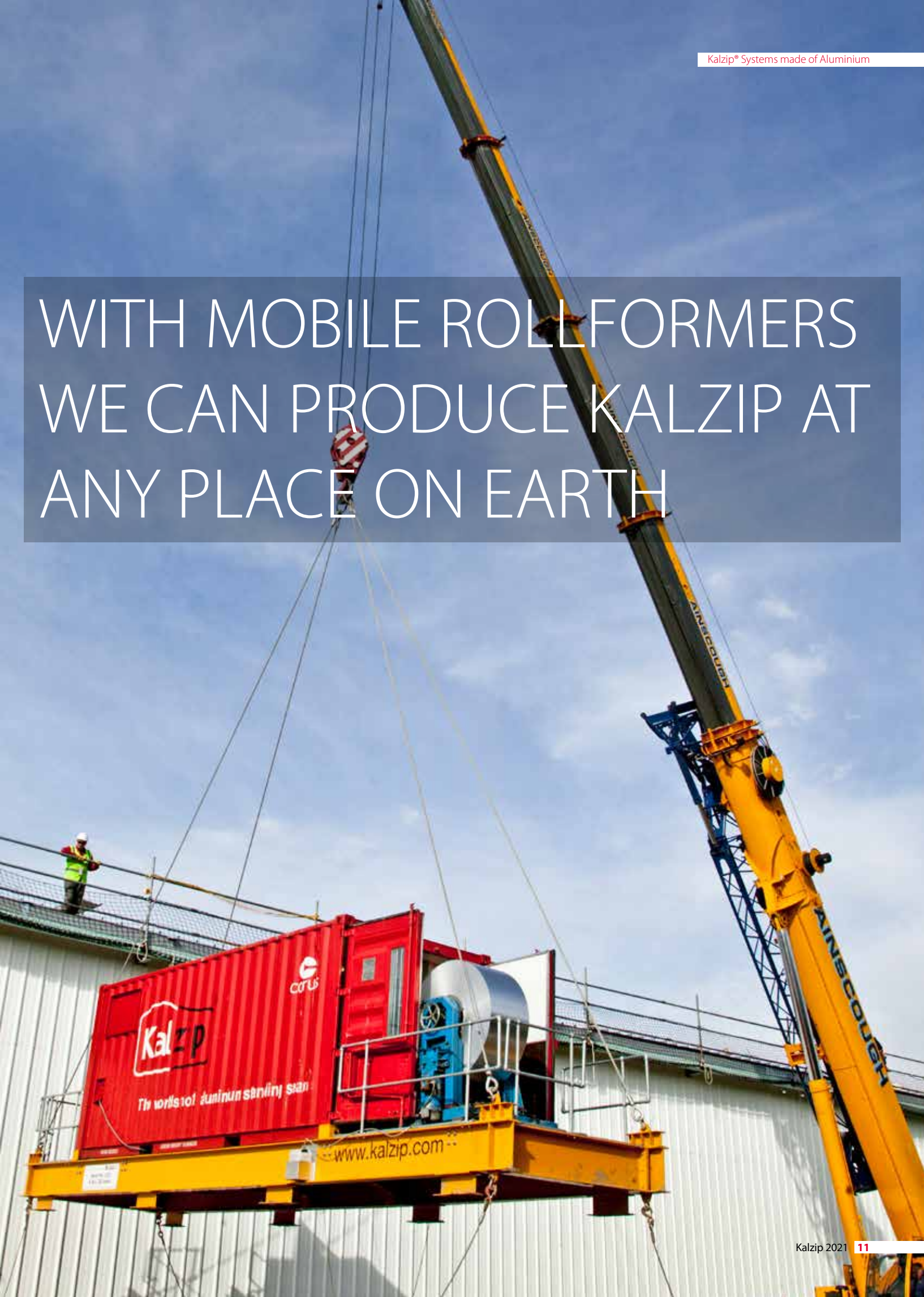
Kalzip AF - Vented roof structure on formwork



Kalzip - Roof construction with intermediate rafter insulation



WITH MOBILE ROLLFORMERS
WE CAN PRODUCE KALZIP AT
ANY PLACE ON EARTH



Kalzip Refurbishment solutions

Kalzip renovation solutions stabilise the building structure and, as a result, ensure decades of protection.

As well as meeting thermal insulation requirements, Kalzip's roof systems achieve outstanding noise reduction values. Thanks to their generally low weight, they are also suitable for large spans and old roof renovations.

The benefits

- Maximum corrosion resistance thanks to the use of salt water resistant aluminium
- High design freedom through individual roof shapes
- Buildings can generally remain in use during refurbishment
- In most cases, savings on disposal costs for old roof cladding and insulation layer
- Compliant adaptation to the current EnEV (Energy Efficiency Ordinance)
- Hard durable roofing solution

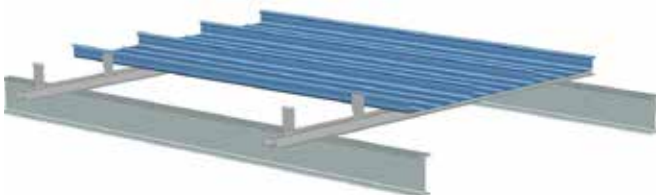
Kalzip Vario LB Roof refurbishment system



Kalzip DuoPlus for composite roof construction



Kalzip refurbishment of corrugated asbestos roof coverings



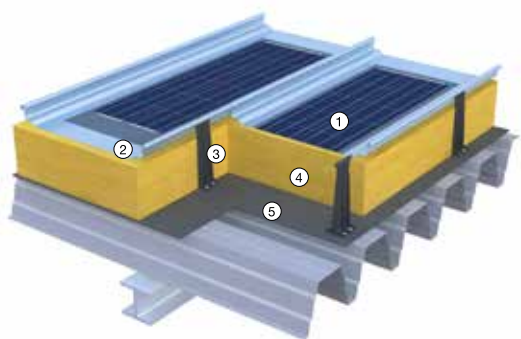
Kalzip Solar solutions AluPlusSolar - SolarClad

Roof-integrated solar modules - Kalzip AluPlusSolar for new buildings and Kalzip® SolarClad for retrofitting into standing seam systems. Both are equipped with a proprietary fibre-reinforced plastic core together with state-of-the-art front, back and EVA films. This guarantees strength, attractive design, flexibility, quality and durability - all in one module.

The benefits

- Maximum design freedom for sophisticated building architecture, thanks to the roof-integrated photovoltaic system without additional fixing elements.
- Retrofitting of existing Kalzip roofs for all widths
- Building authority approved seam clips for maximum safety
- High safety and performance, a fully IEC-certified, glassless, semi-flexible and ultra-light module based on silicon solar cells
- Optimum use of solar energy even in poor light conditions, thanks to the microlens-shaped surface composed of ETFE (ethylene tetrafluoroethylene) film

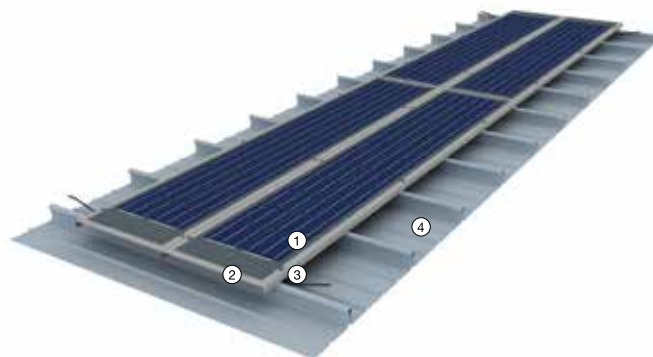
Kalzip AluPlusSolar



Kalzip AluPlusSolar

- ① PV-Laminate
- ② Kalzip® Profiled sheets AF 65/537 Kalzip 50/444 or 65/400 flat pan
- ③ Kalzip® E-Type clip
- ④ Insulation
- ⑤ Kalzip® Vapour layer

Kalzip SolarClad (Ideal for retrofitting)



Kalzip SolarClad

- ① PV-Laminate
- ② Kalzip® fabricated tray with rear junction box and plug connections
- ③ Kalzip® Seam clamp Typ FA
- ④ Kalzip® Profiled sheets 65/... oder 50/...

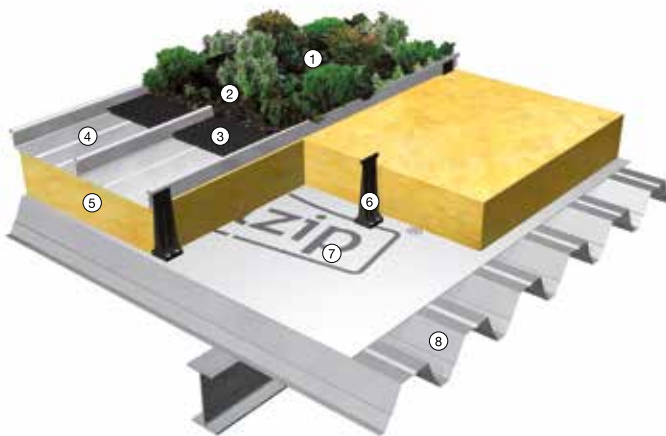
Kalzip NatureRoof

The components of the Kalzip NatureRoof structure are delivered to the construction site as separate units. The functional layers work together to form a complete system when installed.

The benefits

- Construction without additional sealing measures directly on the Kalzip profiled sheets
- Highly cost-effective and fast assembly
- Environmentally friendly
- Improves the thermal protection and indoor climate of the building throughout the year.
- Improvement of micro-climate
- Slows water drainage
- Minimal maintenance

Kalzip NatureRoof



- ① Kalzip Sedum planting
- ② Kalzip Planting substrate
- ③ Kalzip Drainage mat with filter fleece sheathing
- ④ Kalzip Profiled sheets (Kalzip 65/400 or Kalzip 65/333),
- ⑤ Kalzip Insulation
- ⑥ Kalzip advanced E type clip
- ⑦ Kalzip Vapour control layer
- ⑧ Structural deck on rafters

Kalzip Roof Accessories

Precisely matched system components and useful accessories complement Kalzip's variety of design options. Technical requirements are given the highest priority, for a long service life, easy handling, safe assembly and material recyclability.

Intelligently designed and technically advanced solutions for a complete roof structure:

- Steel or aluminium support shell
- Kalzip vapour barriers
- Insulating materials (compressible or high density if required)
- Kalzip system E-clips
- System fasteners for all substrates
- Roof path systems with and without railings, adaptable to respective roof geometries
- Latchways CFP – building authority approved rope-guided fall protection system for Kalzip® standing seam roofs
- Kalzip snow guard system
- Kalzip seam clips for the penetration-free fastening of additive systems
- Lightning protection components
- and much more

Fall arrest system Latchways CFP



Roof Walkway system with and without handrails



Kalzip Seam Clips

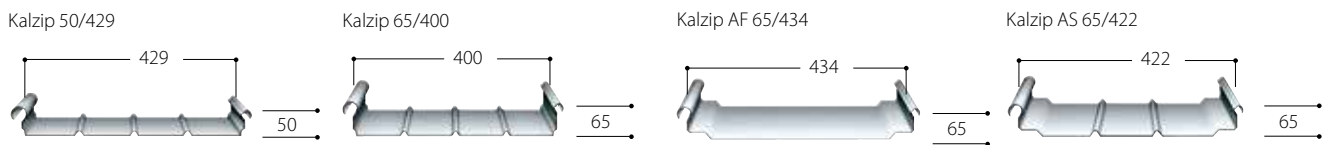


Kalzip Snow guard system



Kalzip Profile widths

Standard profiles - Group 1 -

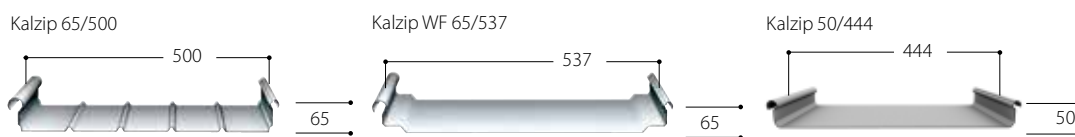


Material thicknesses

0.8 / 0.9 / 1.0 and 1.2 mm depending on quantities and surfaces

*AluPlusPatina natural stucco-embossed, mf Basic & EQ only in 1.0 mm

Standard profiles - Group 2 -



Material thicknesses

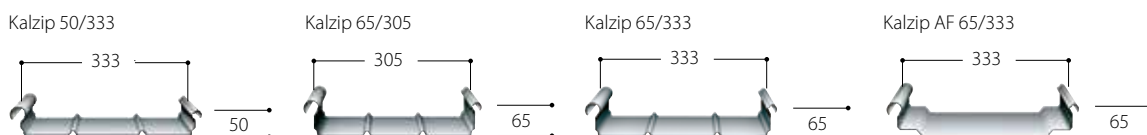
Kalzip 65/500 and WF 65/537:

- 0.8 und 1.0 mm in stucco-embossed
- 0.8 mm and AluPlusPatina Natural-Aluminium mf Basic
- 0.9 / 1.2 mm depending on quantities and surfaces
- WF profile in combination with PV only in 1.0 mm thickness

Kalzip 50/444:

- only 1.0 mm

Non standard profiles (on request, depending on minimum quantity)



Kalzip Profile shapes

1) Straight profile sheet



2) Convex curved profile sheet



3) Tapered convex curved profile sheet



4) Tapered profile sheet



5) Tapered concave curved profile sheet



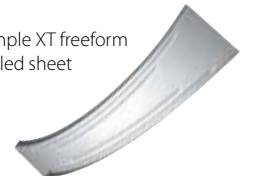
6) Concave curved profile sheet



7) Example XT freeform profiled sheet



8) Example XT freeform profiled sheet



9) Example XT-Freeform



KALZIP STANDS FOR SUSTAINABLE AND DURABLE ROOF & FAÇADE SYSTEMS!

Cité numérique et EM Normandie (FR)
Product: Kalzip Standing seam facade 65/333,
Kalzip 65/500, Kalzip 65/special width PVDF RAL 9016
Architect: Groupe-6
Installer: SOGEA NORD OUEST
© Jacques Basile

Kalzip Façades

- Kalzip FC Façade system 20
- Kalzip TF 37/800 R Façade system 21
- Kalzip Standing seam façade 22
- Kalzip perforated façades 24



Fire Department Sickte (GER)
Product: Kalzip FC Façade 30/300 and 30/600
Architect: struhkarchitekten BDA
Planungsgesellschaft mbH
Installer: Gurr Spezialbau GmbH, Niepars

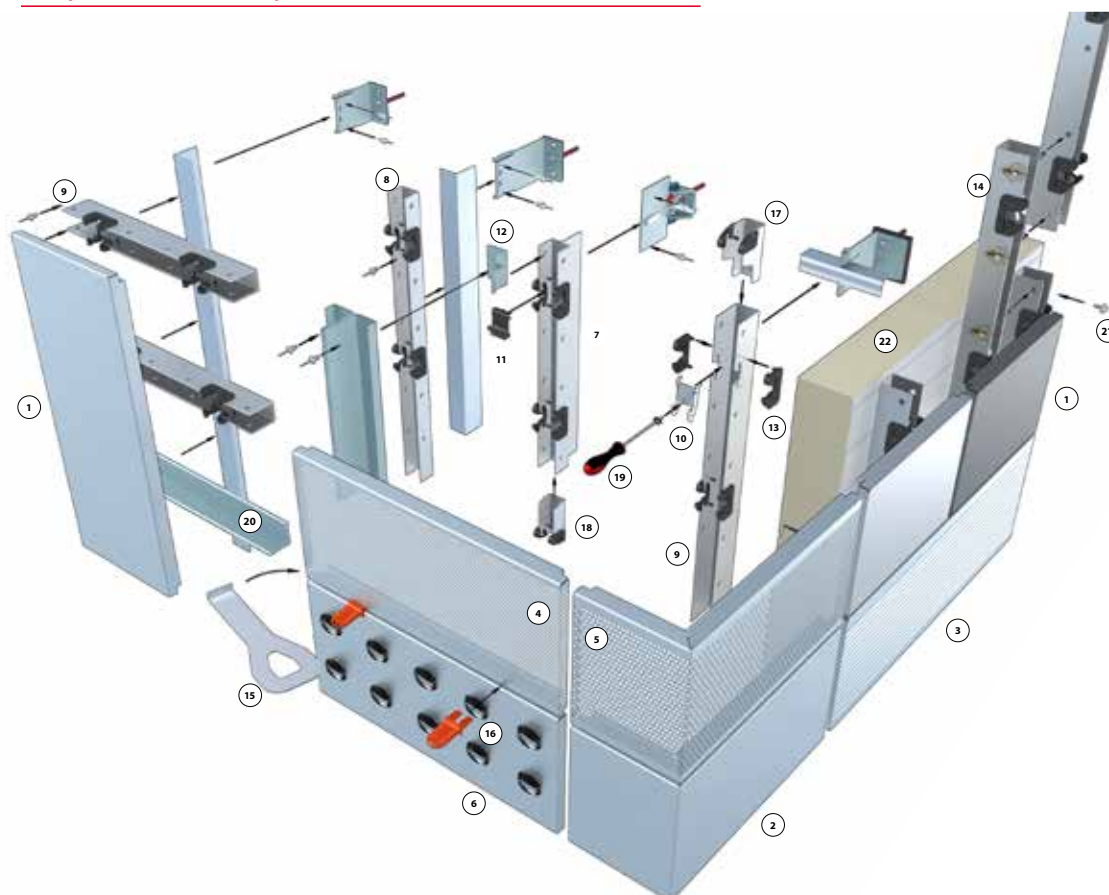
Kalzip FC Façade System

The patented Kalzip FC façade system is a suspended, rear-ventilated metal facade. It sets new standards in terms of flexibility, ease of assembly and cost-effectiveness. The Kalzip FC façade system offers architects and planners a variable and easy-to-assemble building product for new builds and renovation projects.

The benefits

- Fast, safe and simple installation thanks to the patented click system.
- Can be installed from top-down or bottom-up
- Planning support for substructure and FC façade
- Durable, sustainable and very affordable façade solution
- Sustainable product with product-specific declaration (EPD) according to DGNB
- Simple replacement for damaged façade panels

Kalzip FC Façade- the components



Panels delivery options

- ① FC Panel
- ② FC Corner panel
- ③ Micro-rib surface (only FC 30/400)
- ④ Perforation Rv 3-5
- ⑤ Perforation Rv 6-8
- ⑥ FC Panel Luminaire

System sub-construction (Variants)

- ⑦ Modular click rail SEL
- ⑧ Modular click rail NE (only on request)
- ⑨ Modular click rail SE

System accessories

(Parts and components)

- ⑩ Fixed point clamp
- ⑪ Guidance snapper
- ⑫ Flashing support
- ⑬ Plastic inlay (preassembled)
- ⑭ Setting out tool
- ⑮ Panel removal tool
- ⑯ Plastic shims
- ⑰ Adapter SE
- ⑱ Adapter SEL
- ⑲ Allen key for fixed Point clamp
- ⑳ Supporting angle
- ㉑ Fastener
- ㉒ Composite panels

Kalzip TF 37/800 R façade

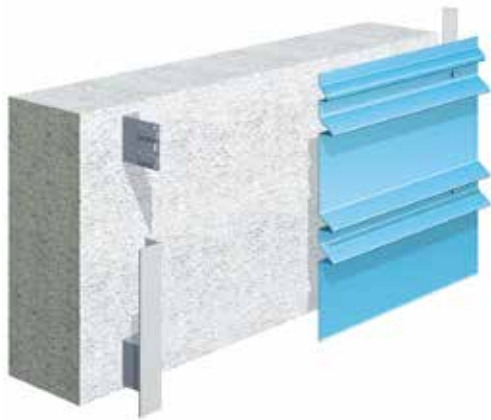
© Photos: Stéphane Groleau

Kalzip façade panels offer architects and builders an opportunity to create bespoke tailor-made designs. Through efficient production as well as economical and thus ecological use of material they meet all the requirements for practical construction

The benefits

- Unmistakable aesthetic design
- Cost-effective
- Lightweight
- Various options for acoustic and thermal insulation
- Micro-rib
- Impact-resistant façade

Concrete and masonry substructures



Trapezoidal substructures



Transom/mullion constructions substructures



Intermediate structures for cassettes



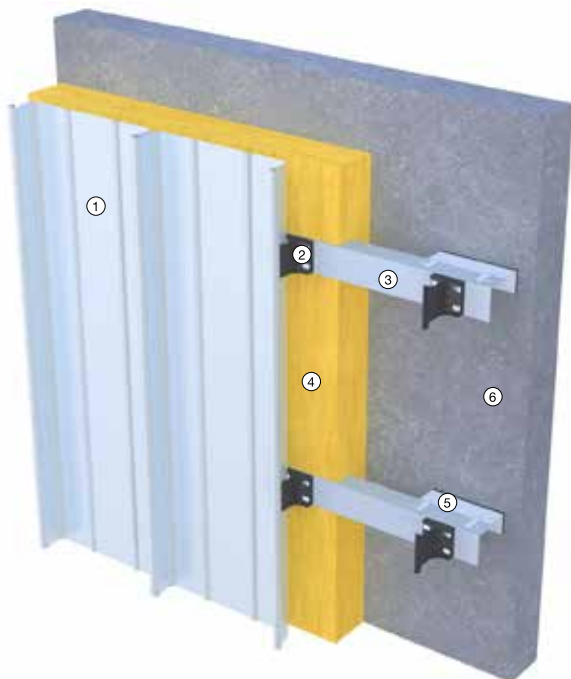
Kalzip Standing seam façade

Kalzip standing seam façades offer sustainable and cost-effective weather protection and, thanks to their versatility, are the perfect design solution for creating unique building aesthetics. The seams can be installed vertically or horizontally, which will determine the final appearance. In addition, a variety of finishes and colours are available to the designer.

The benefits

- High-quality sophisticated metallic or coated surfaces constructed from durable aluminium
- Solar shading applied to front of glass façades
- Differentiation between public and semi-public space
- Ideal for the improving the appearance of unsightly existing facades
- Highly corrosion-resistant for long-term building protection
- Cost-effective renovation of façades

Kalzip standing seam façade



- ① Kalzip profiled sheet
- ② Kalzip E-Type Clip
- ③ L-angle
- ④ Insulation
- ⑤ Holding hand bracket
- ⑥ Substrate e.g. masonry

SHK Innung Munich (GER)
Product: Kalzip 65/400, Kalzip 65/333
Architect: Muck Petzet Architekten
Installer: LEIB GmbH

Kalzip® Systems made of Aluminium



Kalzip Perforated façade

Perforated Kalzip Profile sheets

straight
profile sheet



Convex curved
profile sheet



Concave curved
profile sheet



Perforated Kalzip FC Façade panels



RV 6-8
Perforation percentage:
min. 44 %, max. 48 %
depending on panel width
Perforation diameter: 6 mm



RV 3-5
Perforation percentage:
min. 29 %, max. 31 %
depending on panel width
Perforation diameter: 3 mm

Perforated Kalzip TF 37/800 R Façade panels



Kalzip Foldable Aluminium

Kindergarten in Murg (DE)
Product: Kalzip Foldable Aluminium, TitanSilver
Architect: Ernesto Preiser Architekturbüro
Installer: Schnieder + Sohn

Kalzip Foldable Aluminium

Kalzip foldable aluminium is the ideal material for installation using traditional folding techniques. Almost any shape can be implemented for roofs and facades. Can easily be folded, profiled and flanged using proven and established techniques' instead of.

The advantages for designers and installers:

- Design freedom due to virtually unlimited formability
- Impressive price-performance ratio
- Certainty regarding planning, construction time and costs due to simple processing of the material, even at low temperatures without pre-heating
- Highly corrosion-resistant for long-term building protection
- Easy to process using traditional roofing techniques
- A 100 kg roll of FalZinc with a cover width of 600 mm has an unrolled length of about 88 metres in comparison to 33 metres in the case of zinc
- A solid timber separating layer is unnecessary in most structures

Constructions with Kalzip® foldable aluminium

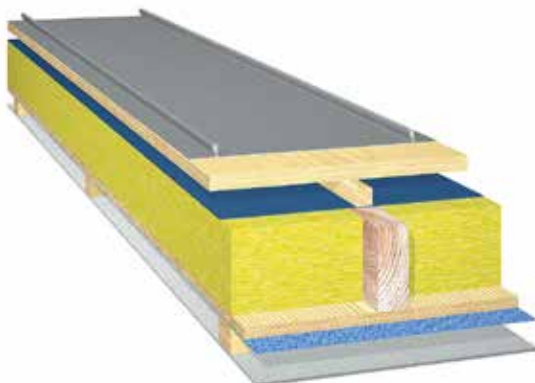
Double standing seam



Angled standing seam



Double standing seam



Angular standing seam



EVEN STRONGER AS A GROUP

Kalzip is a Donges Group company.

The Donges Group is the leading supplier of steel bridge and steel building constructions as well as roof and façade systems in Europe. The product portfolio includes steel bridges for road, rail, footpath and cycle path construction, steel building constructions and steel frame constructions as well as roof and façade solutions made of aluminium and wood, glass façades and an extensive range for flat roof systems. The Group is globally located and has 11 production facilities, with sales offices located in over 30 countries.



www.kalzip.com

Kalzip is a registered trademark. The greatest possible care has been taken to ensure that the contents of this publication are correct. However, neither Kalzip nor its trade representatives can accept any responsibility or liability for errors or for information that may be construed as misleading.

It is the customer's duty to check the suitability of the products manufactured or supplied by Kalzip GmbH before using them.

Copyright ©2021
Kalzip GmbH

Kalzip is a Donges Group company



Kalzip GmbH
August-Horch-Str. 20–22
D-56070 Koblenz
T +49 (0) 2 61 - 98 34-0
F +49 (0) 2 61 - 98 34-100
E mail@kalzip.com

English 1021