

Kalzip[®] Finishes and Colours

to agru

Roof and Facade systems



Expressive colours and finishes for expressive architecture

There are many ways to express aesthetics through finishes and colours in architecture. Our visual perception changes according to shifting light – such as the time of day, the changing seasons and the play between light and shade. Moisture, rain, frost and light all anchor a structure within its environment and make shapes and moods more tangible.

Therefore, finishes and colours are among the strongest means of expression in architecture. They convey a building's identity and individuality, create distinctiveness and impressively shape the appearance of modern buildings.

Kalzip roof and facade systems enable classic and sophisticated architectural styles to be materialised and give form to modern architecture like no other building system can.

Kalzip 2021

Résidence Hôtelière du Rail, Rennes (F) Architect: ALL ARCHITECTES Finishes: AluPlusPatina Champagne G12 Product: Kalzip FC 30/250/1.2 mm; 30/500/1.2 mm and 30/500/1,2 mm, perforated Rv 6-8

Kalzip finishes – uncompromisingly metallic

Classic stucco-embossed finish

Kalzip profiled sheets are available in a classic stucco-embossed version. This natural metallic finish is achieved through treatment by embossing rollers.

The sheets have extraordinary characteristics – for example, the extremely robust finish is resistant to mechanical damage during ins-tallation, while the diffused reflection of the finish reduces glare.

The material is particularly well suited to shaping larger roof and facade areas.

With a natural grey tone, the aluminium finish is resistant to salt water and is weatherproof in even the harshest environmental conditions.

Features of the stucco-embossed Kalzip finish:

- Extremely weather-resistant and robust
- Reduced glare due to diffused light reflection



Stucco embossed

Lien Khuong Airport Passenger Terminal, Da Lat, Vietnam (VNM) Architect: Architecture and Construction Southern Association (ACSA) Finish: PVDF2 coating Product: Kalzip 65/400

Kalzip colours – unlimited variety

Modern building technology places high demands on materials when it comes to weathering and corrosion resistance. Coloured Kalzip aluminium profiled sheets are the result of state-of-the-art surface treatment technologies.

Consistent colour quality

The aluminium coils, which are coated using a coilcoating process, undergo numerous steps. Depending on the type of coating, they are given different pre-treatments and painted in the desired colour. Aluminium coils with a single-sided coating are provided with a protective coat of varnish on the rear side. Only high-quality enamels which have a polyester, PVDF or HPC base are used, in order to achieve a weather-resistant and colourfast coating.

The coil coating process is monitored in accordance with the standards of the ECCA (European Coil Coating Association). Key criteria are colour tone, degree of shine, thickness of varnish, hardness of varnish, adhesion of varnish and malleability. Long-duration tests are carried out, such as acid salt spray tests, QUV B tests, condensation tests in an SO2-saturated atmosphere and openair weathering tests in harsh environments.

Kalzip profiled sheets with polyester coating

This coating is robust and can be easily formed, as well as being weatherproof and UV-resistant. Kalzip profiled sheets in a polyester finish are mainly used in areas with normal environmental conditions.

To protect the finish during installation, we offer a choice of protective film on the large roll or protective film over the entire surface (excluding the small roll).

Kalzip profiled sheets with PVDF coating

This coating performs particularly well in harsh environments and extreme climatic conditions, for example near salt water. Profiled sheets in PVDF quality are characterised by outstanding UV-resistance, have exceptional forming characteristics and are used primarily for facade design.

Kalzip ProTect coating

To protect the finishes, Kalzip also offers a high-quality and extraordinarily weather-resistant special coating, based on a polymer technology that uses fluorocarbon (FLP). It delivers extremely high resistance to scratching, optimum colour tone stability, and considerably higher surface hardness and temperature resistance.

Features of the ProTect coating:

- Available for RAL, NCS and metallic colours
- Outstanding long-term characteristics with very low chalking tendency
- Very good resistance to dirt due to a Teflon-like behaviour, which reduces cleaning requirements
- Resistant to chemicals, even to harsh emissions such as aircraft exhaust gases
- Thanks to the FLP technology and an additional coat of clear varnish, an 'Anti-Graffiti effect' is achieved, offering effective protection against vandalism
- Also available in high gloss finishes
- Conforms to the examination conditions of the Florida test (exposure test for over 20 years)



Standard finishes for Kalzip profiled sheets with polyester coating (depending on the profile type and material thickness)









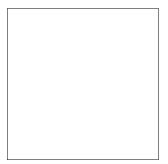
RAL 7016 Anthracite Grey

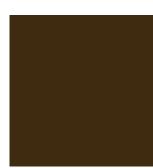
RAL 9006 White Aluminium

RAL 9007 Grey Aluminium

RAL 7012 Basalt Grey (UK Only)

Non-standard finishes for Kalzip profiled sheets with polyester coating (Minimum quantity 300m² depending on the profile type and material thickness)







RAL 9010 Pure White

RAL 8014 Sepia Brown

Further colours in RAL / NCS and special colours on enquiry

Kalzip HPC -High-Performance Colour system (HPC)

Exclusive colours in the High-Performance Colour system (HPC/HPC R) with long-term guarantees

The High-Performance Colour system (HPC) is a further development that uses a polymer resin base to deliver particularly high chalking resistance and colour stability. Highly resistant, it is suitable for use in harsh and demanding climatic conditions, with a high level of UV radiation. With a gloss level of just 3%, Kalzip HPC sets new trends in roof and façade design.

The new HPC R finish, in the colours stone grey and anthracite grey, features a slightly rough texture. It is robust and extremely resistant to UV radiation and chalking. The environmentally friendly coil coating process and the elimination of surface films makes the HPC R finish a sustainable choice.

Chalking/colour stability

The chalking of paints is regulated by a rating system. Each colour begins with 10. The stronger the chalking, the lower the value. The HPC/ HPC R colour system has a value of \geq 8 after 15 years, which is regarded as excellent or almost

imperceptible. The same applies to colour stability, which has a value of $< 5\Delta E$. The colour system thus delivers outstanding stability.

Benefit from a 15-year manufacturer's warranty for colour stability and chalking. A 20-year warranty is available for façade applications. This advantage is unique in the market and applies, under normal atmospheric effects and conditions, to

- Kalzip profiled sheets in all widths
- Kalzip FC façade panels
- Kalzip flat sheets and coils

Scope of application: Applies to Europe

To protect the HPC finish during installation, a protective film is applied over the entire surface (except for the small roll). This is not used with HPC R.

Kalzip 15 Years

Properties of coil coating colour systems

Paint system	Layer thickness (µm)	Balance of hardness and flexibility	Chemical resistance	Chalking behaviour	Weathering resistance	Gloss level %
Polyester 2-layer	25 +/- 5	+	+	+	+	10 - 80
PVDF 2-layer	25 +/- 5	+	++	++	++	10 – 30
HPC 2-layer	35 +/- 5	+	++	++	++	3 - 80

+ > good ++ > excellent

Source: ECCA European Coil Coating Association



Standard finishes for Kalzip profiled sheets and FC façade panels (depending on the profile type and material thickness)





HPC M353 Anthracite Grey R

HPC M353 Stone Grey R



HPC M353 RAL 9006 White Aluminium



HPC M353 RAL 9007



HPC M353 RAL 7016 Anthracite Grey

Non-standard finishes for Kalzip profiled sheets and FC façade panels with HPC coating (Minimum quantity 300m² depending on the profile type and material thickness)







Further colours in RAL / NCS and special colours on enquiry

Kalzip AluPlusPatina – stylish matt option for roofs and façades

The metallic AluPlusPatina option for roof and façade systems enables planners and architects to create sophisticated surfaces in gold, bronze and copper finishes.

A special surface treatment reduces the diffused light reflection of the pre-weathered surfaces. The tints are produced using electrolytic passivation, without the need for paint application. The passivated coating will maintain the same thickness throughout its use, ensuring a long service life.

The AluPlusPatina finishes are available as standard for all Kalzip standard widths as well as for the new Kalzip FC façade system.

Features of Kalzip AluPlusPatina:

- Extremely weather-resistant and robust finish
- Ideal for building envelopes that merge into the façade
- Dirt-repellent and scratch-resistant finish resists marking by fingerprints
- UV-resistant
- AntiGraffiti
- No filiform corrosion

AluPlusPatina Basic stucco-embossed

- stucco-embossed, patinated finish
- Achieves the look of a naturally weathered aluminium surface
- Special surface treatment creates matt appearance, as well as uniform surface greying

AluPlusPatina Basic natural

- Smooth rolled, matt finish for simple and functional requirements
- Achieves the look of a naturally weathered aluminium surface
- Special surface treatment creates matt appearance
- 10-year warranty under normal atmospheric influences
- Anti-graffiti properties, with easy-to-clean surface

AluPlusPatina EQ

- Further development of the existing AluPlusPatina finishes
- Sophisticated shades in bronze
- Tinted using electrolytic passivation, without paint application
- Maintains its original 5-micron layer thickness throughout use, which guarantees a long lifetime
- Suitable for rolled aluminium coils
- Anti-graffiti properties, with easy-to-clean surface

Fire brigade, Sickte (D) Architect: struhkarchitekten BDA, Braunschweig Finish: AluPlusPatina Bronze B40 Product: Kalzip FC 600 and FC 300



Metallic standard finishes for Kalzip profiled sheets and FC façade profiles (depending on the profile type and material thickness



AluPlusPatina natural aluminium, stucco-embossed



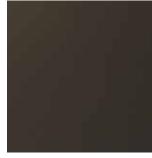
AluPlusPatina natural aluminium, mill finish

the small flange).



AluPlusPatina Medium-dark bronze B 40, mill finish

To protect the finish during installation, a protective film is applied over the entire surface (except for



AluPlusPatina UltraDark mill finish



AluPlusPatina Red Copper mill finish

Metallic non-standard finishes for Kalzip profiled sheets and FC façade profiles (Minimum quantity on enquiry, depending on the profile type and material thickness)









Champagner G 12 – mill-finish

Medium Gold G 30 mill-finish

Mid-Bronze B 30, mill-finish

Dark Bronze B 50, mill-finish Kalzip 2021 9

Traditional zinc or elegant slate look – the Kalzip AluPlusZinc® finishes

AluPlusZinc and AluPlusZinc Dark are inspired by the look of traditionally weathered zinc. They give buildings, roof landscapes and façades an unmistakable character. The timeless, aesthetic appeal of the classic, weathered zinc patina or the understated grey of the slate harmonises with traditional roof and wall cladding. As if it were 'alive', the patination of both finishes continues to develop thanks to environmental conditions and always remains impressive.

With strict quality standards and a patented process, this produces high-tech aluminium products for demanding projects.

To protect the finish during installation, a protective film is applied over the entire surface (excluding the small roll).

Arcam, Amsterdam (NL) Architect: Rene van Zuuk

Finish: AluPlusZinc® Product: Kalzip 50/333

Features of Kalzip AluPlusZinc and AluPlusZinc Dark:

- Zinc patina applied using the PEGAL process
- Salt water resistant aluminium alloy for corrosion-proof, sustainable and lasting aesthetics
- No contamination of groundwater due to heavy metal ion leaching
- Ideal for sensitively blending with existing features when refurbishing
- Convincing look for new construction projects
- Cost effective and high performance



AluPlusZinc



AluPlusZinc Dark

Warranty

Due to the limitations of print technology, the images within this brochure cannot offer an exact representation of the finishes and colours. Natural irregularities within the base materials used to produce our stucco embossed or pre-weathered surface finishes (e.g. AluPlusPatina, TitanSilver), as well as the transparent varnish systems, mean that production related colour variations cannot be ruled out.

These differences in colour, which are not caused by production techniques, mostly appear at the edges of the coils and are only visible as optical irregularities depending on the view-point, as well as light and weather conditions. Colour deviations of this kind do not represent a material defect as defined by warranty regulations or in accordance with DIN 485-1; hence warranty claims cannot be accepted on this basis.

For more information on delivery times and minimum quantities, please refer to the standard overview for profiled sheets, panels, metallic surfaces and colours.

Your Kalzip contacts

Kalzip UK

Kalzip Ltd Haydock Industrial Estate Haydock Lane, Haydock St Helens Merseyside WA11 9TY

E sales.uk@kalzip.com T +44 (0) 1942 295500

Kalzip North Asia

Kalzip Asia Pte Ltd Room 17-18, 7/F, Huida Building, 3 On Yiu Street, Hong Kong, China

E mail@kalzip.com T +852 (0) 2887 5277 M +852 (0) 9632 3283

Kalzip France

Kalzip France SAS 11 rue de Courtalin Bâtiment B – 2ème étage 77700 Magny-le-Hongre

E france@kalzip.com T +33 (0) 160 435 710

Kalzip North America

Kalzip Inc. 161 W. Lincolnway, Suite C 46383 Valparaiso USA

E mail@kalzip.com T +1 (0) 219 286 3481 M +1 (0) 219 796 7978

Kalzip South Asia & Australasia

Kalzip Asia Pte Ltd 6 Pioneer Walk, 2nd Floor 627751 Singapore

E mail@kalzip.com T +65 (0) 97586675

Kalzip Benelux

Kalzip Benelux Coremansstraat 34 Royal House 2600 Berchem

E mail@kalzip.com T +32 (0) 32 808 015 F +32 (0) 32 808 019

Kalzip Middle East

Kalzip

Kalzip FZE Jebel Ali Free Zone – Dubai Dubai, UAE

E mail@kalzip.com T +971 (0) 56 179 2478

Kalzip Spain, Portugal & South America

Kalzip Spain S.L Calle de Embajadores 187 planta 4º 28045 Madrid

E spain@kalzip.com T +34 (0) 913 430 343 F +34 (0) 915 721 295

Kalzip Croatia/Serbia

Aluminijski Krovni Sistemi D.O.O. Vijenac Vlahe Bukovca 10 31000 Osjiek, Croatia

E aks@hi.t-com.hr **T** +385 (0) 98 46 88 77

Kalzip India

Kalzip India Pvt. Ltd. Unit 310, 3rd Floor, Vipul Agora M.G Road, Next to Sahara Mall 122002 Gurgaon (Haryana)

E mail@kalzip.com T +91 (0) 124 484 8800 M +91 (0) 965 002 5454

Kalzip Export/Russia/Poland

Kalzip GmbH August-Horch-Str. 20 - 22 56070 Koblenz Germany

E germany@kalzip.com T +49 (0) 261 - 9 834 0 F +49 (0) 261 - 9 834 100

Kalzip Swiss

Senteler AG Karlihofstrasse 4 CH-7208 Malans

E kalzip@senteler.swiss T +41 (0) 81 322 38 38 M +41 (0) 79 406 79 12

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



www.donges-group.com

Kalzip GmbH

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