

Swisspearl system and products

Unlimited design solutions

**swiss
pearl®**



Competence, excellence and innovation

Long term experience

For more than 40 years, Swisspearl's Research & Development teams have continuously expanded their unique expertise regarding fiber cement material technology, coloration and application of whole systems. These significant technological advances are the backbone of the Swiss quality. Swisspearl is the only manufacturer which masters the highly demanding production processes for integrally colored shade in shade fiber cement panels offered in such a wide color variety.

Unique with long time proven quality

Swisspearl fiber cement panels are manufactured with low energy and high environment consciousness. Thus the products are 100% environmentally friendly. Additionally, they are mainly made of local mineral raw materials. The proprietary processes pioneered by Swisspearl with special surface finish, sealed edges and back coating ensure optimal behavior and durability of the panels, which have been a proven process since the late 1950's. Furthermore, Swiss construction authorities testify to over 40 years as standard life expectancy. Millions of panels installed throughout the world prove the outstanding, reliable long term quality of the fiber cement panels and coating.

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The ventilated façade system

A highly sustainable solution



6 The rear ventilation system

A highly sustainable solution

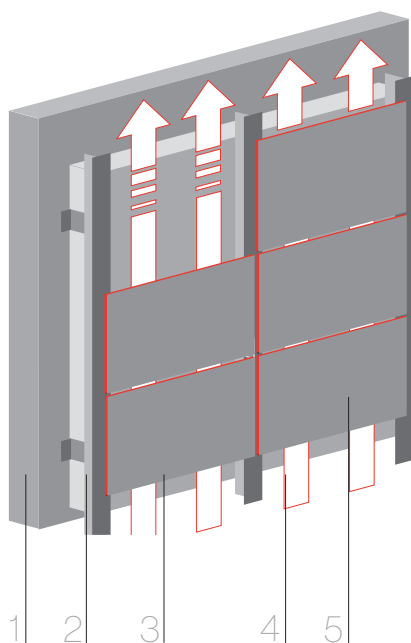
Providing considerable energy savings for any building, the environmentally friendly ventilated façade system and Swisspearl fiber cement panels are not only a good contribution to climate protection, they also offer a great opportunity to enhance the durability, appearance and value of a building.

All Swisspearl panels are specially designed for rain-screen cladding applications with rear ventilation. Combined with each other, they become the most reliable system from the technical construction viewpoint. This cladding system effectively protects the building and its structure from the elements for a long time. Furthermore, it reduces humidity and the air circulation optimizes the efficiency of insulation. Therefore there will be no problems like mold, fungi, etc. The rot-resistant and non-combustible panels are extremely durable and virtually maintenance free – an attractive solution with lots of advantages.

Maximum longevity to exterior cladding

The five main components

The typical rainscreen system is based on natural rear ventilation. It is most reliable, sustainable and provides maximum longevity to exterior cladding. Ventilated façade systems consist of five main components:



- 1 Support structure
- 2 Sub frame
- 3 Thermal insulation layer
- 4 Ventilated cavity
- 5 Swisspearl Cladding

1 Support structure

The exterior wall of a building is mainly made of concrete, CMU blocks, brickwork, steel or timber frame with studs and planked by gypsum boards.

2 Sub frame

Swisspearl façade panels are installed on timber or metal supports.

3 Thermal insulation layer

The advantage of an exterior thermal insulation is to keep the entire building structure at a constant temperature and to minimize thermal bridges and thus reduce the loss of energy to a minimum. Economic as well as ecological advantages result.

4 Ventilated cavity

The main task of the air cavity is the evacuation of moisture and excess heat. The air circulation occurs naturally thanks to the pressure difference between bottom and top.

5 Swisspearl Cladding

The outer skin of the building envelope has two main functions; to be aesthetically pleasing as well as protecting against influences from climate and environment.



Fasteners and advantages

One system many options



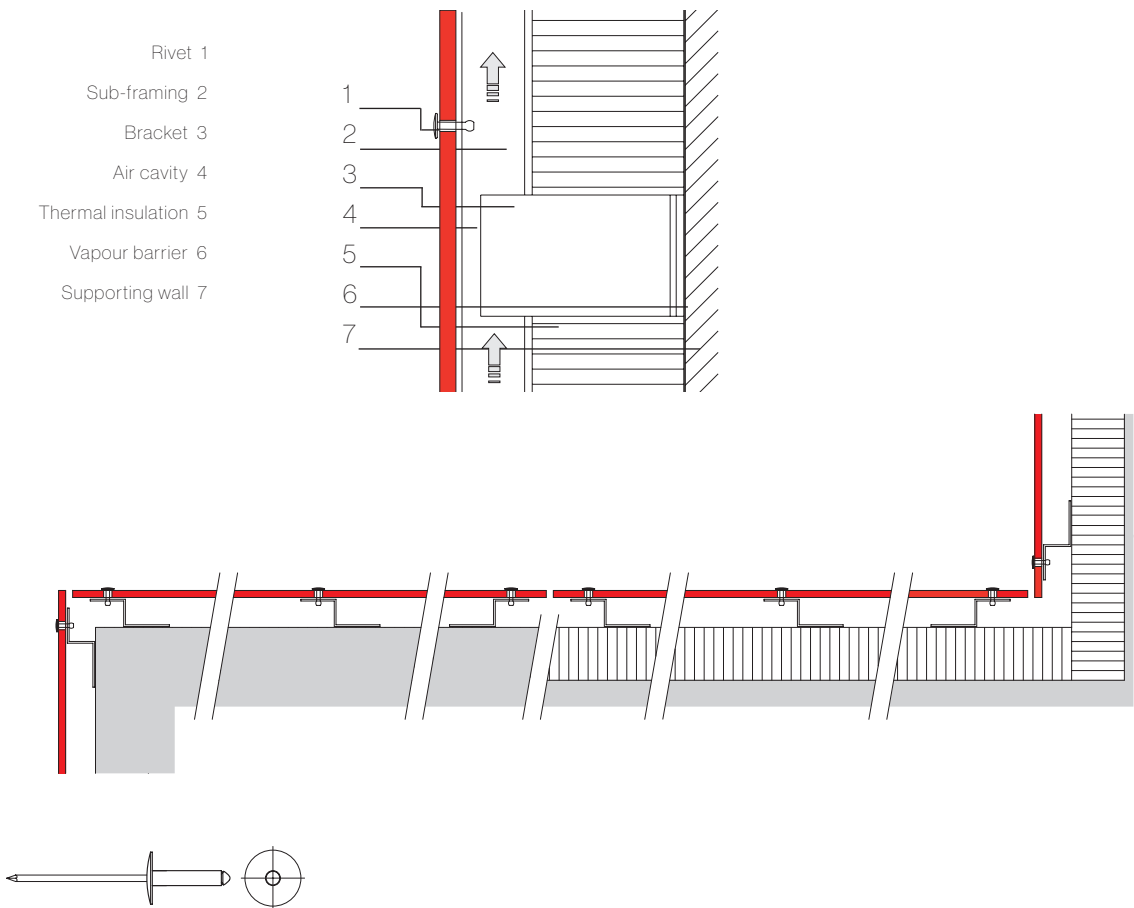
¹⁰ Appereance of the cladding

Face fastened

Swisspearl façade panels are installed on timber or metal substructures. The fastening method using face fastened screws or rivets allows an efficient attachment to the supporting structures. In fact the fastener heads are available in the same shades of color as the panels, and are hardly visible even a slight distance away as they blend with the overall surface.



Metal sub frame (aluminium or galvanized steel)



Rivets

Stainless steel or aluminum. Heads powder coated or blank. Standard type 18 mm, longer rivets for lapped cladding panels.

Hole diametres

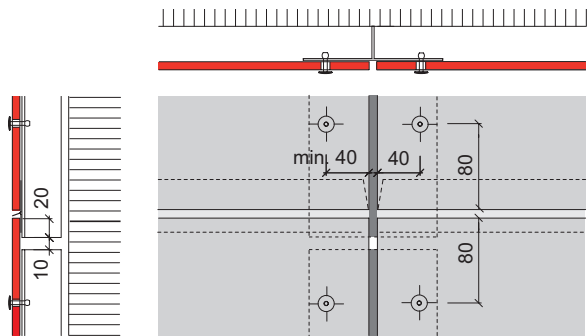
All holes to panels for both fixed and slipping points to be of diameter 9.5 mm. All holes to sub frame for fastening the panels to be of diameter 4.1 mm.

Aluminium profiles

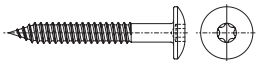
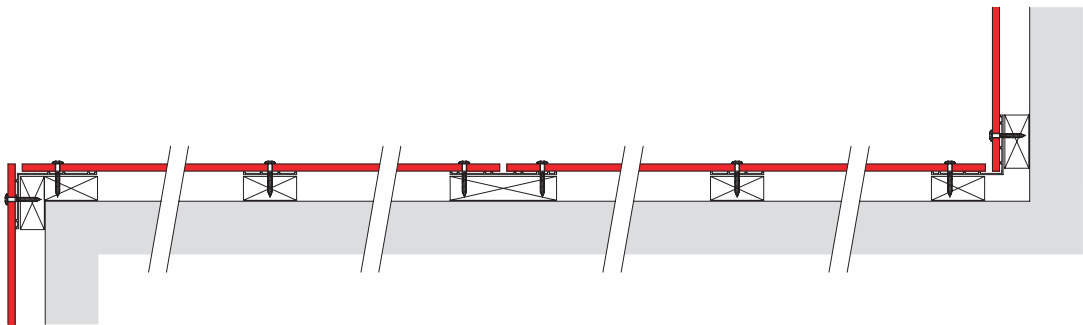
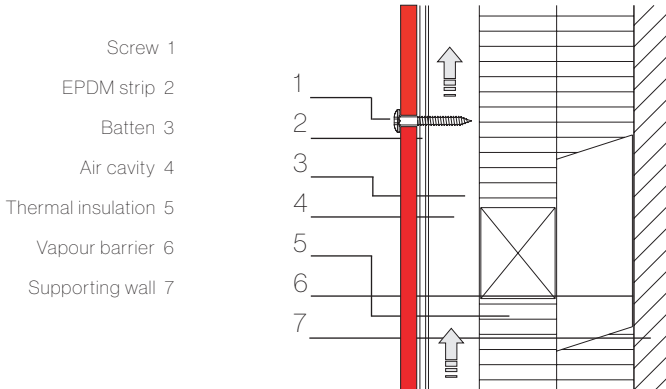
Min. 2 mm thickness aluminum mill or anodized. Profile length about 3 m for installation storey high breaks to coincide with horizontal panel joints.

Steel profiles

Steel panel supports to be min. gauge 18 (1.27 mm / 0.05") to obtain nominal pull out value. Profiles should not be longer than 6 m (20').



Timber battens



Screws / bit

Stainless steel screw,
with powder coated or
blank head.
Standard type 4.8×38
mm, head Ø 12 mm, drive
T20W.

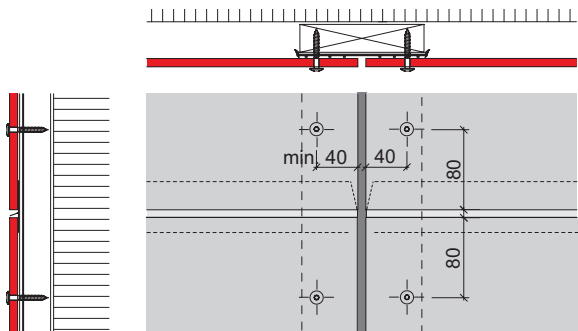
Hole diametres

Holes to panels to be
Ø 5.5 mm

Timber quality

Battens must be thickness gauged
to 1 face:

- Thickness min. 27 mm (min. 3/4")
- Solidity class II (FK II/C24)
- Recommended only using kiln-dried
lumber
- Moisture content max. 20-%



14 Swisspearl Sigma

Concealed panel attachment

The concealed attachment has been designed for applications with the highest aesthetic standards. This high-end method of use brings out the full attractiveness of the surface finish of the Swisspearl panels.

Sigma concealed panel attachment is available for 8 and 12 mm panel thickness.

The panels are supplied from the factory accurately cut to size, including anchoring points to the panel rear face. Aluminum parts are fitted to the panels on site and the panels hung into the appropriate supports on the sub-framing.

The sub-framing is made either out of timber battens covered by a layer of EPDM for moisture protection; or by metal, i.e. aluminum or galvanized steel.



Swisspearl technical testing center, Niederurnen, Switzerland. Architect: Cadosch & Zimmermann, Zurich. Photographer: Jürg Zimmermann, Zurich.

16 Cost efficiency

Savings up to 30% advantage over typical façade

A Swisspearl façade is a cost-efficient and extremely economical building envelope which retains its value very well, thanks to its excellent characteristics such as easy assembly at all weather conditions, long life, functional reliability and being almost maintenance-free.

Swisspearl ventilated façades have proved in severe climates to be very energy efficient and cost effective over the long term. They also ensure a longer life expectancy for the building structure and the building envelope with low-cost maintenance.



Energy efficiency

Swisspearl façades are ideally suited for energy-efficient construction concepts. Sophisticated construction with long-lasting weather protection offers distinct, long-lasting energy efficiency.



Durability and maintenance

Rear ventilated claddings are virtually maintenance-free. Costs for repainting, recaulking and repairing at regular intervals are thus eliminated. The longevity of Swisspearl cladding panels makes the economic advantage of the product obvious.



Sustainable and efficient

Outstanding features such as durability, functional reliability, maintenance-free upkeep, and simple installation make Swisspearl façades an especially cost-effective, efficient, and high-value building envelope starting from day one. The sustainability of Swisspearl products is proven by EPDs (Environmental Product Declarations).

One system

Many advantages

Rear ventilated cladding, often referred to as rain screen cladding, in combination with the use of a thermal insulation on the outside of the exterior wall, generate numerous advantages as follows:



Long-lasting reliability

Unrivaled everlasting Swisspearl slates offer optimal protection of the façade construction against all manner of weather or outside influences, thus guaranteeing a long-lasting, reliable building envelope for decades.



Flawless

The exterior of every façade is subject to extreme temperature fluctuations. The Swisspearl façade system allows for unhampered dilation of the exterior mounted siding. So you don't have to worry about extensive repair work to fix cracks in the plaster or flaking due to frost on the exterior.



Fireproof

Swisspearl panels are composed of mineral and thus non combustible according to ASTM E-136. They have outstanding fire protection properties. A feature that offers the necessary safety even for especially compact structures.



Architecturally inspiring

Swisspearl uniquely combines functionality with a strong aesthetic power of expression. Its unique material features combined with the variety of forms and colors opens up virtually boundless realms of possibility for the design of first-class façades.



Moisture protection

No condensate and mildew on the walls. The back ventilation space allows diffused water vapor inside the building to escape to the outside in a controlled manner.



Ecological from A to Z

Minimal energy required for production and its long service life make Swisspearl panels the embodiment of sustainability in construction, even in comparison to wood. The layers of the Swisspearl façade system are also separable, making it easy to dismantle.



Optimized comfort

The special structural-physical properties of the Swisspearl façade system maintain an ideal, healthy environment in the building all year round. While the insulation placed throughout keeps the cold out of the living space, natural air circulation in the back ventilation spaces prevents heat transfer to the interior in the summer and keeps the living space pleasantly cool.

General information ventilated façade

Façade engineering

Façade engineering is to be carried out by a locally licensed engineer based on the data supplied by Swisspearl (panel and fastening data, wind load tables) and based on the applicable local standards and regulations.

Sub frame/ panel support

The panels are supplied including the fasteners but without the support profiles. This leaves the great advantage of flexibility for the project. For example:

- Verticals in metal or timber attached to horizontal Z
- Double threaded spacer screws for timber battens, adjustable in/out
- Aluminum bracket (fixed/slipping)
- Aluminum verticals adjustable in/out
- Timber sub frame made of horizontal and vertical layer
- Verticals in metal or timber to horizontal angle adjustable in/out



Jet Office, Poznan, Poland. Architect: Insomnia, Poznan. Photographer: Paweł Ulatowski c/o ARES, Walerianowo.



Swisspearl façade panels

From surface areas to façade



22 Swisspearl façade panels

From surface areas to façade

No space without surfaces. No interior without an exterior. A façade is the defining element of every building. The first, lasting impression. It is the two- and three-dimensional expression of architectonic creativity and the leeway available for accentuation and differentiation. Additionally, the façade serves as the protective envelope. Its long service life ensures lasting comfort. Swisspearl façades combine boundless diversity of design and long-lasting functional reliability, for the highest living standards.

Swisspearl panels are installed in accordance with the ultimate technology of uninterrupted rear ventilation. This fully developed and proven cladding system effectively protects the building structure and with it the whole building from the elements for decades. The panels are rot-resistant, incombustible and virtually maintenance free.

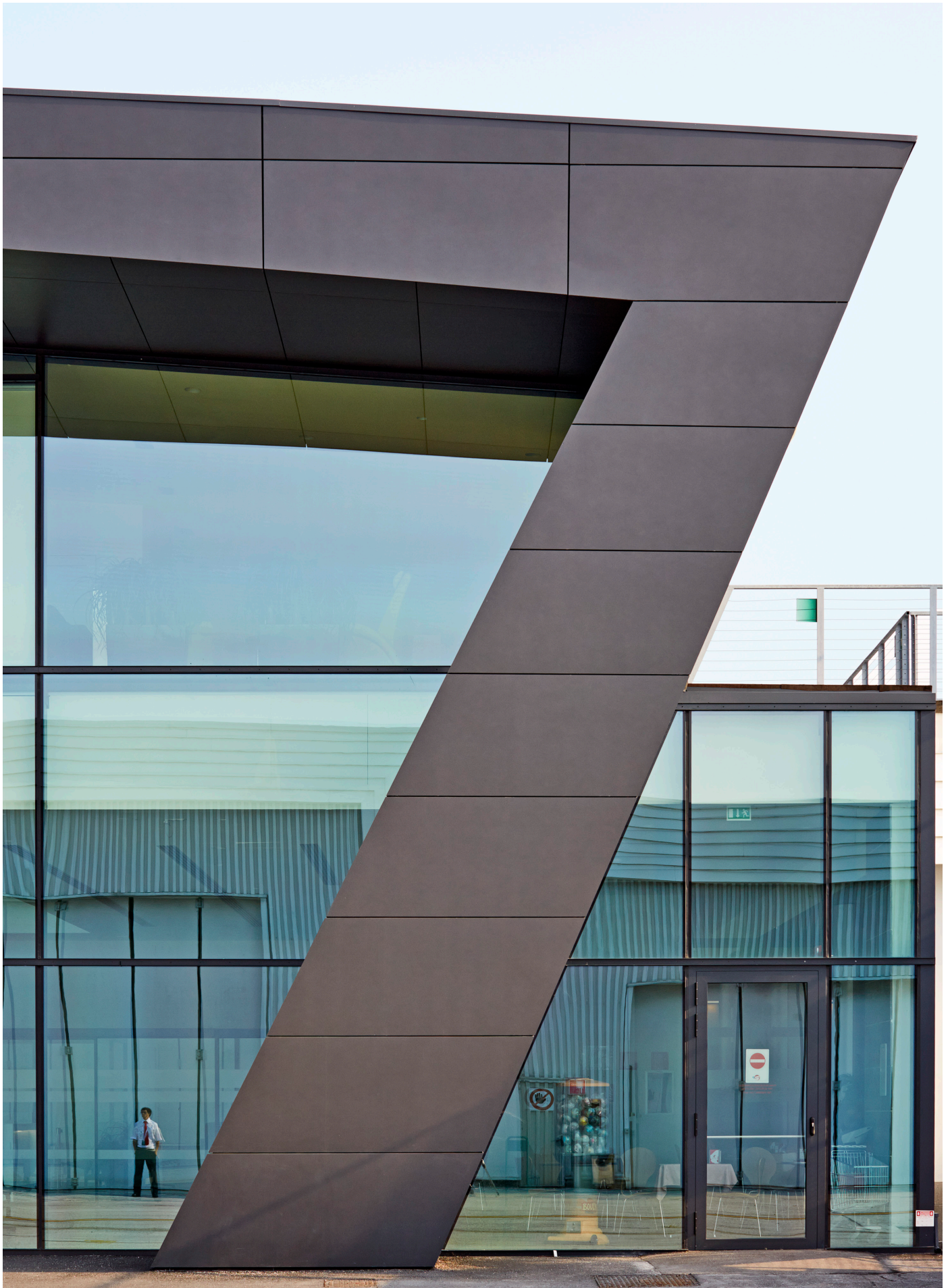




Swisspearl large panels

Freedom of design without limits





Page 24/25: Single family home, Hirzel, Switzerland. Architect: Christa Stutz & Benno Kohli, Switzerland. Photographer: Jürg Zimmermann, Zurich.
Page 26: Airport Extension, Bolzano, Italy. Architect: Lukas Burgauner, Bolzano. Photographer: Rene Riller, Schlanders.

Swisspearl large panels

Freedom of design without limits

The large-format Swisspearl panels give façades what they need: a face, individuality, character, texture, color and, very importantly, a highly effective protective layer. Swisspearl allows an immense range of possibilities for the design of façades, with an extensive selection of surface options, various types of joints and fastenings, and panel formats that can be freely selected within the maximum useable size. For visible creativity and to meet the highest aesthetic requirements, in proven Swisspearl quality.



Info

Panel size

Arbitrary panel size up to a maximum size of 3050 x 1230mm, thickness 8mm and 12mm

Colors

A wide range of more than 85 colors and additional custom colors

Installation

The whole range from flat layer to lapped coverings, with face or concealed fastening

Detailed information please refer to our delivery program





Linearis slat panels

Elegant and light





Linearis slat panels

Elegant and light

Linearis are ready-made Swisspearl panel strips, for installing with open joints. Whether monochrome or multicolored, equal or varying format lengths, with continuous or offset joints – there is immense scope for different combinations. The low consumption of resources and energy for their manufacture, and their long working life, make Linearis the epitome of sustainable construction, like all Swisspearl products.



Info

Panel size

4 different panel sizes, thickness 8mm

Colors

A wide range of more than 60 colors

Installation

Easy installation with open joints, panels attached by rivets or screws

Detailed information please refer to our delivery program



Modula overlap panels

Medium-size format for high-end architecture



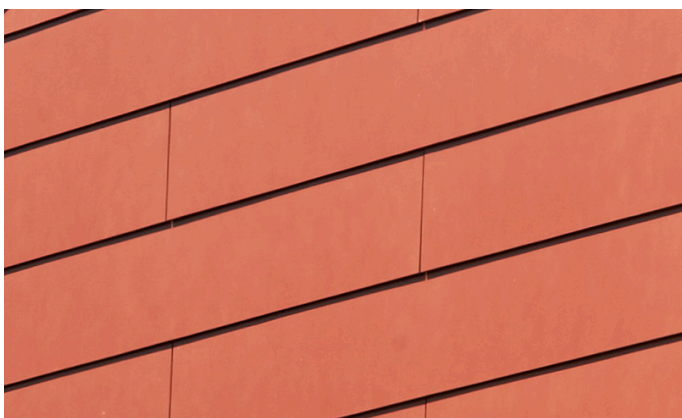
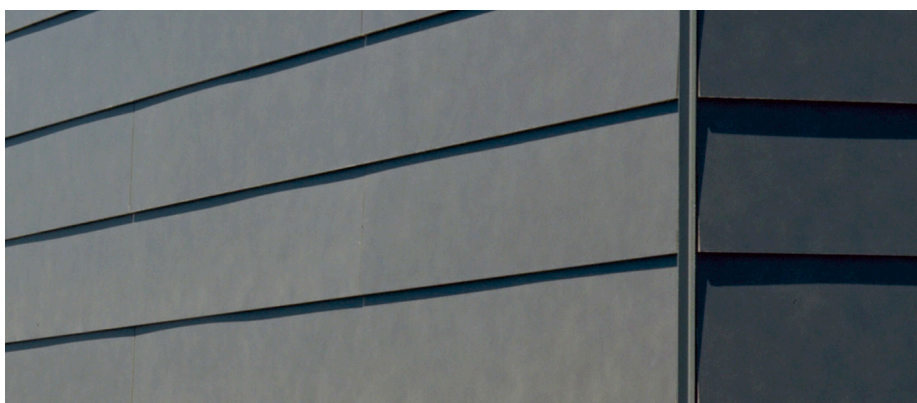


Modula overlap panels

Medium-size format for high end architecture

The horizontal Modula structure has a fine architectonic rhythm. The slim panels, available in two different lengths, are installed as lapped coverings and can be arranged both with continuous and with offset vertical joints. A large number of different surfaces and colors enable numerous additional design variants.

Whether monochrome or multicolored, equal or varying format lengths, with continuous or offset joints – Modula provides immense scope for individual combinations.



Info

Panel size

2 different panel sizes, thickness 8mm

Colors

A wide range of more than 60 colors

Installation

Installation of the modules with continuous or offset vertical joints is possible

Detailed information please refer to our delivery program



DAVIS-HARRINGTON WELCOME CENTER

HARRINGTON WELCOME CENTER

Customized panels

Be creative

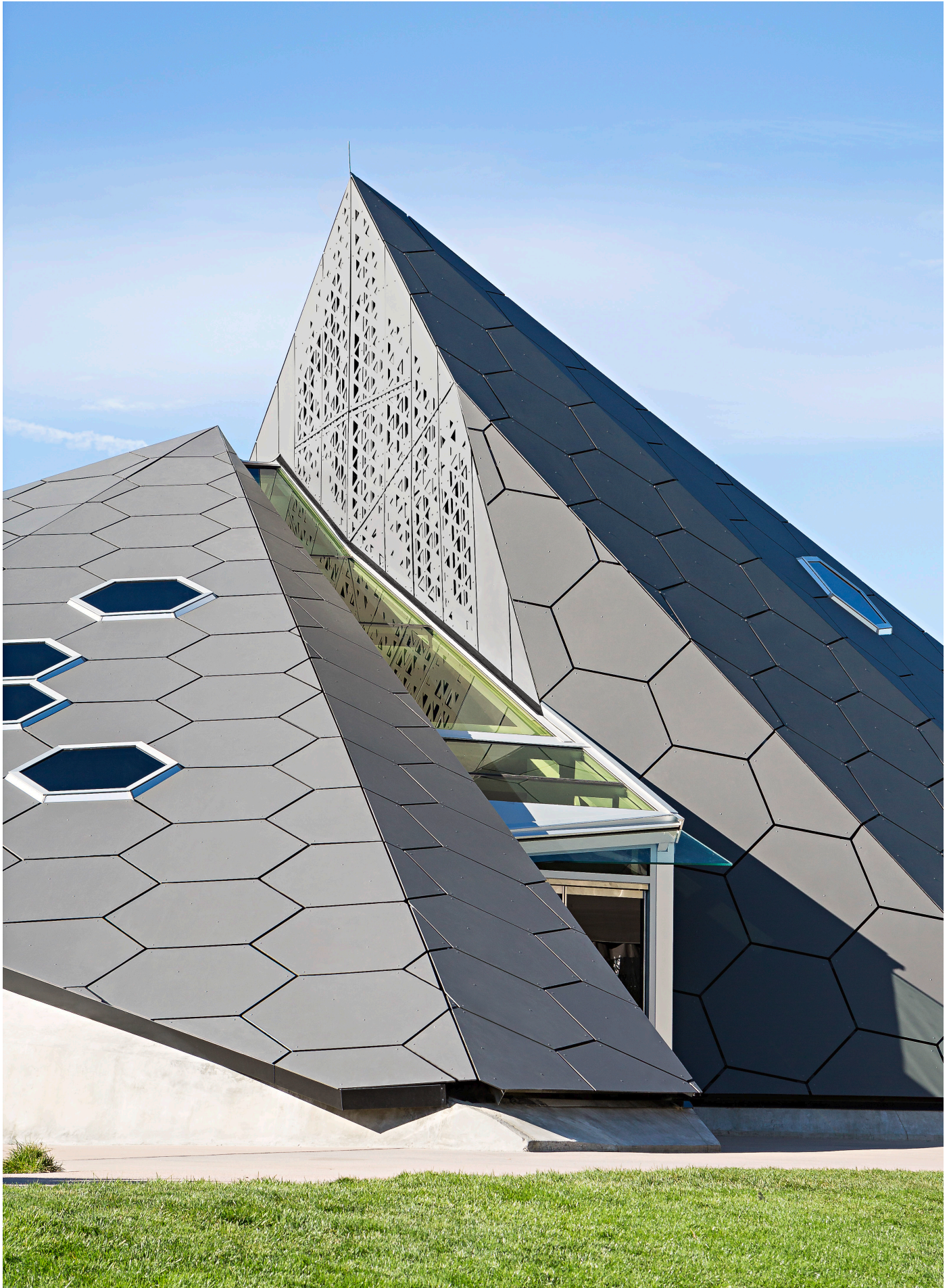


38 Customized panels

Be creative

The designing possibilities offered by the wide range of finishes and colors may be complemented with special fabrication or surface treatments. These additional options allow an exclusive, special touch to be given to every high profile building.

The various Swisspearl specialties rest on the integrally colored panel platform. Panels with perforations, engravings or other surface treatments are provided with an outstanding finish. They may be used individually or in combination with other Swisspearl panels in same or different shade or with other materials.





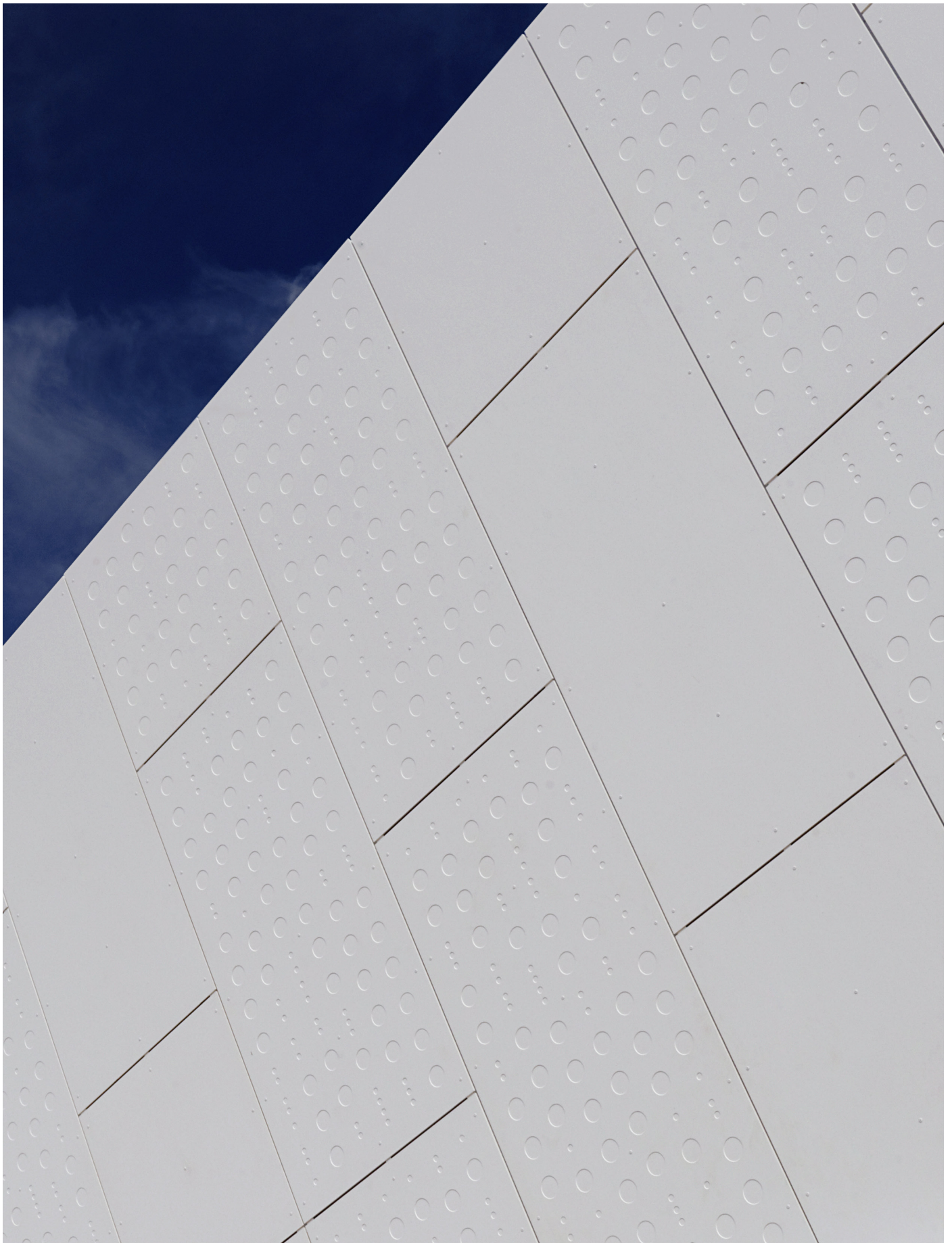
Corona del Mar middle School, California, USA. Architect: Dougherty & Dougherty, Costa Mesa. Photographer: Nils Timm, Los Angeles.

Perforations

Designing possibilities with functionality

Holes, slots and other shaped perforations allow the creation of unusual effects. Perforated panels may have a function (sliding shutters, lighting concepts, windscreens, separation, sound absorption, etc.) or be purely decorative. Each perforation project needs to be checked by our technical advisors. As a guideline, the surface of perforations may be up to 18%.

Perforated panels are not available in HR finish nor Avera.



Davis-Harrington Welcome Center, Springfield, USA. Architect: Dake Wells Architecture, Springfield. Photographer: Gayle Babcock, Springfield.

Engravings

43

To impress

Geometric designs, unique custom patterns, company logo, etc., the creative possibilities are unlimited. Engravings may be within a panel, change from one panel to the other or run over several panels to create a bigger pattern. The structural feasibility of each intended pattern needs to be checked. As a guideline, the depth of engravings is 1.5 mm (panel 8 mm thickness) or up to 4.0 mm (panel 12 mm thickness). Please consult a Swisspearl technical advisor or the Design and Installation Manual.

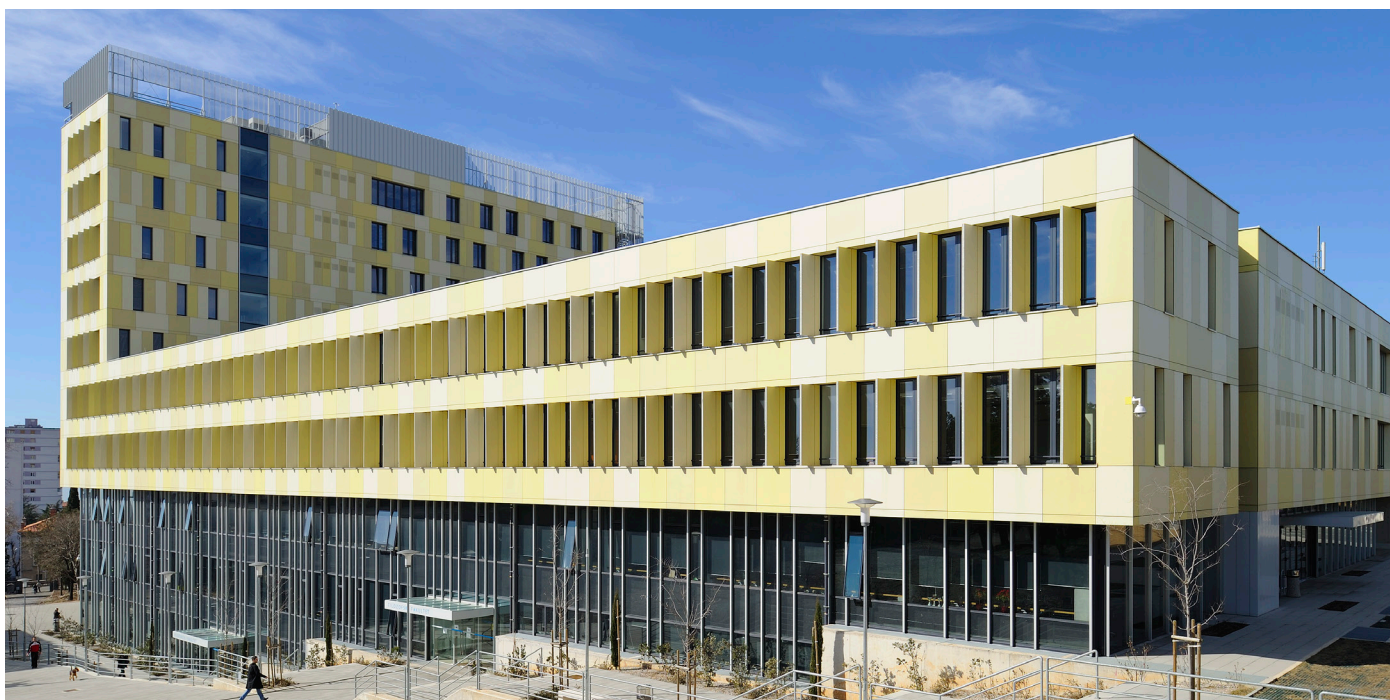
Engraved panels are not available in HR finish nor Avera.



44 Panels coated on both sides

Twice the look

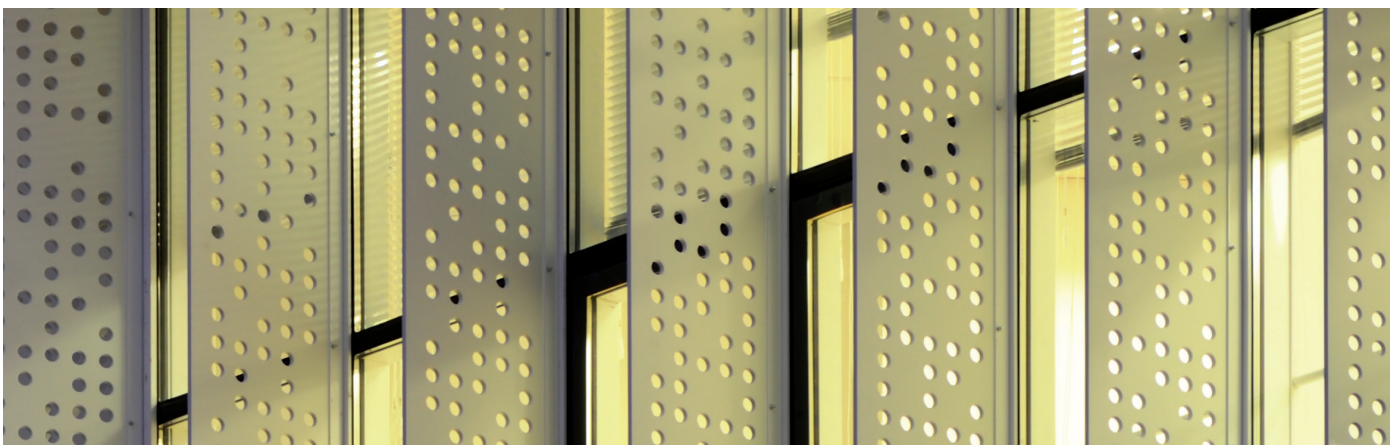
Any panel may be finished on both sides. Typical applications are panels for balconies or balustrades (minimum thickness: 12 mm), partition walls visible on both sides, sliding shutters, etc.



Sun shading elements

Break the light

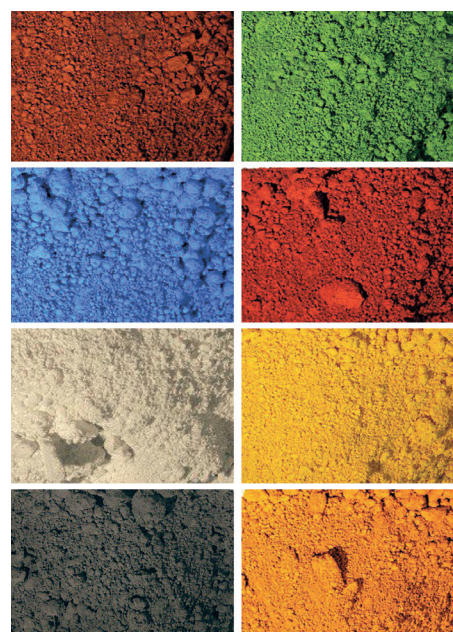
Additional customized treatment such as perforations is of course also possible for sun shading elements. With these functional and aesthetic elements heat buildup in sun-exposed rooms can be reduced, thus allowing significant reduction in energy costs for cooling needs.



46 Customized colors

Create your own color

You want to create your own color for the façade or the roof? No problem! Swisspearl has an unmatched competence and know-how regarding special colors. Thousands of customized colors were supplied according to architects' specification.



Custom-tailored building envelope

47

Free design

The need for individuality and expression in our society continues to grow. With our material, we are able to implement special and unique panels according to most of the individual customer's needs. For example three-dimensional building envelopes can be an option.

Special requests or designs? We are happy to assist you.





Swisspearl interior design

Moving from the outside to the interior



50 Swisspearl interior design

Moving from the outside to the interior

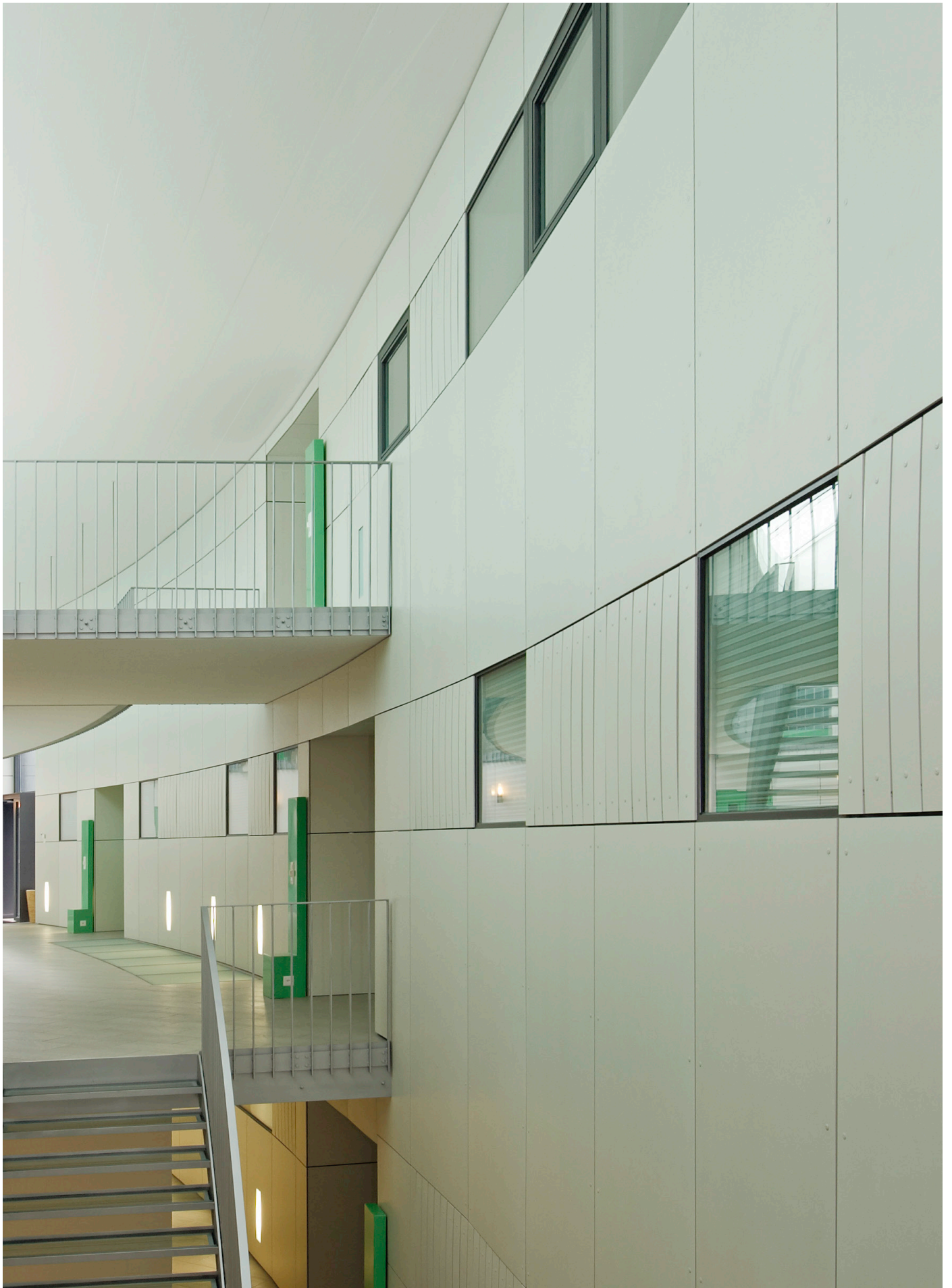
Whether they are private areas, living and working spaces, or public zones with many passersby, indoor space means living space. The many requirements that the human being has here extend from the aesthetic aspects to the acoustics, the durability, the surface feel, and the safety aspects.

Swisspearl panels, with their unmistakable material characteristics and their technical properties, offer the widest range of design opportunities combined with the highest quality standards, for distinctive interior design.

Swisspearl is the key for high spec interior spaces of universities, administration, offices, conference rooms, hotels and restaurants, shopping malls, airports, train stations as well as residences. The scope of application is literally unlimited.



Page 48/49: School "Bäumlihof", Basel, Switzerland. Architect: ffbk Architekten AG, Münchenstein. Photographer: Jürg Zimmermann, Zurich.
Page 51: Aquarium for the "Human Fish", Postojna Cave, Slovenia. Architect: Studio Stratum, Ljubljana. Photographer: Miran Kambic, Radovljica.



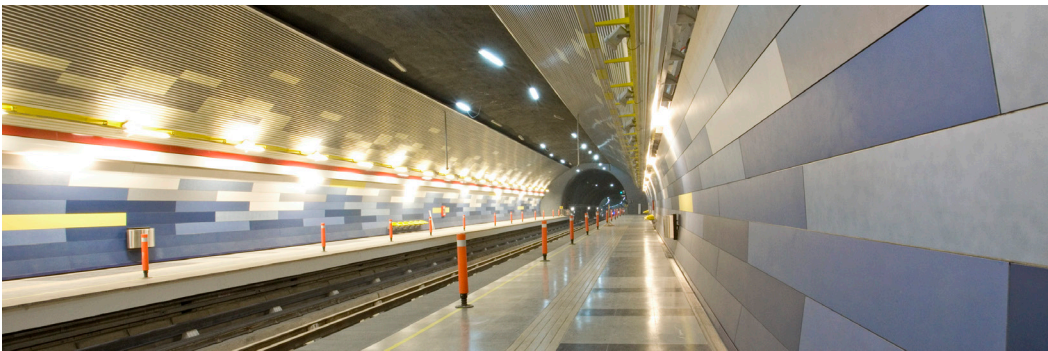
Multi family house, Zurich, Switzerland. Architect: Franz Marok AG, Mauren. Photographer: Jürg Zimmermann, Zurich.

Swisspearl for interior

Inspiring freedom of design

Whether it is for cladding interior walls or ceilings. Swisspearl panels lends a fascinating quality and atmosphere to the room that is being designed, in a surprising new way. The fiber cement material with its delicate surface texture and most of them with the carefully matched full-body color, lend the Swisspearl panels an unmistakable uniqueness, with their pleasant natural appearance and surface feel. What is more, their beneficial physical properties mean that they are extremely tough, durable and fire-resistant, so they are long-lasting, reliable and problem-free.

Swisspearl panels are also suitable to enhance room acoustics. Made of inert material, perforated Swisspearl panels are sound-absorbent to approx. 10 decibels. Sound absorption coefficient can be improved by using sound absorbing mats.



Info

Panel size

Arbitrary panel size up to a maximum size of 3050 x 1230mm, thickness 8mm and 12mm

Colors

A wide range of more than 85 colors and additional custom colors

Installation

The whole range from flat layer to lapped coverings, with face or concealed fastening

Detailed information please refer to our delivery program



Swisspearl roof

On the rooftops



56 Swisspearl roof

On the rooftops

The roof is the crowning final touch to every building; the canopy under which the elements of an intelligent, well-proportioned overall design are all brought together. However, besides the aesthetic criteria it also has to meet the very highest demands of resistance against extreme weather. It must serve as protection against blazing sunlight, storms, rain, hail and snow. With a variety of forms, colors and great practical functions, Swisspearl brings out the boundless diversity of designs, the enhancement and preservation of the value of buildings, at the same time protecting the living rooms and offices and the people in them.



Page 54/55: Multi family house, Küsnacht, Switzerland. Architect: Rossetti + Wyss Architekten AG, Zurich. Photographer: Jürg Zimmermann, Zurich.
Page 57: Multi family house, Bachenbülach, Switzerland. Architect: zh architekten AG, Zurich. Photographer: Jürg Zimmermann, Zurich.



Multi family house, Küsnacht, Switzerland. Architect: Rossetti + Wyss Architekten AG, Zurich. Photographer: Jürg Zimmermann, Zurich.

Swisspearl the 5th façade

A clear language to express architectonic visions

Leave the conventional behind and strike out new paths. Swisspearl invites you to experiment with space, form and surfaces, and develop creative solutions, without compromising the functional reliability in any way. The large-format roof panels with their proven Swisspearl quality will add character to roofs with a slope of just 6 (10.5%) degrees or more, and provide an exciting visual effect even when viewed from a distance.



Info

Panel size

2 panel sizes, thickness 8mm

Colors

10 different Carat R-Color

Detailed information please refer to our delivery program



Swisspearl color families

Uniqueness and diversity



62 Swisspearl color families

Uniqueness and diversity

The various color families allow the unique character of the Swisspearl panels to be expressed in an almost endless diversity. The carefully chosen full-body color and color finishes, each in their own way, emphasize the unmistakable aesthetics of the material, and combine material and color to form a single whole.

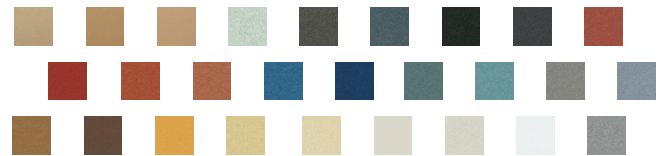
CARAT

Base panel: Integrally colored

Top layer: Translucent lightly pigmented

Standard colors: 27

Carat panels are integrally colored with a transparent lightly pigmented acrylic top finish shade in shade. The unique natural look and the timeless beauty of the monolithic material with its delicate vein texture provide an exciting and noble expression to every building.



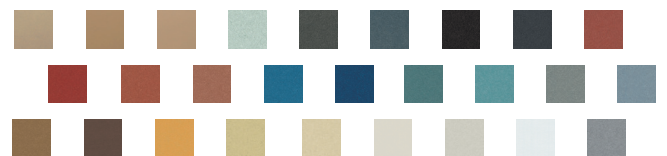
CARAT HR

Base panel: Integrally colored

Top layer: Translucent lightly pigmented

Standard colors: 27

This special surface treatment offers an increased scratch resistance and a higher UV resistance. Furthermore, most graffiti can be removed using acetone. Generally the aspect resembles the Carat finish, whereas HR panels have a slight sheen to the surface. Carat and HR panels can be used on the same elevation, if possible with a separation between them.



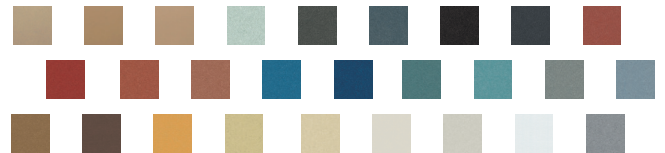
CARAT F-COLOR

Base panel: Integrally colored

Top layer: Opaque

Standard colors: 27

Providing a slightly unsmooth surface, the thicker coating with opaque pigmentation of this acrylic finish allows vibrant colors. It also provides an increased protection against weathering and UV radiation. Available on request in all standard Carat colors and as custom shades.



CARAT R-COLOR

Base panel: Integrally colored

Top layer: Opaque

Standard colors: 10

Carat R-Color panels are integrally colored. The special coating with opaque pigmentation of this finish allows vibrant colors. It also provides an increased protection against weathering and UV radiation as well as a slightly textured surface.



AVERA

Base panel: Integrally colored

Top layer: Translucent

Standard colors: 9

Avera are solid-colored fiber cement panels with a vibrant texture never seen before. The unique look is characterized by the specifically coordinated dynamic manufacturing process. The resulting natural variation in color tonality and perspective even between the panels expressively emphasizes the authenticity of the material. Avera gives a façade a unique vibrancy. A high-quality invisible coating provides the Avera panels with years of protection from weather effects and lets the original look and texture shine through. The special coating also shows strong scratch resistance and offers lasting defense against most graffiti.



To see our detailed color range please refer to our delivery program.

INCORA

Base panel: Integrally colored

Top layer: Translucent

Standard colors: 2

The innovative Incora façade panel stands out through a vivid spreading pattern, generated through granulated marble.



REFLEX

Base panel: Integrally colored

Top layer: Iridescent

Standard colors: 12

These panels are directional, mostly integrally colored and have an iridescent surface coating which is purely acrylic. Changing lighting and angles of vision produce amazing nuances in color shades. For cutting and installation manufacturing direction of sheets is to respect.



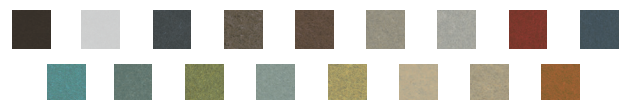
NOBILIS

Base panel: Grey based

Top layer: Translucent lightly pigmented

Standard colors: 17

The semi-translucent surface coating on a pure acrylic basis provides the classic fiber cement appeal with much visual depth to it. For availability in HR-Coating refer to our delivery program.



ZENOR

Base panel: Resemble to the surface coating

Top layer: Opaque

Standard colors: 15

Fiber cement panels, with smooth opaque surface coating that resembles the base panel color.



To see our detailed color range please refer to our delivery program.

KANDOR

65

Base panel: Grey based

Top layer: Opaque

Standard colors: 5

Grey based fiber cement panels with fine-grained opaque coating.

*Not available in the North American market







68 General information

Product warranty

The products are manufactured to highest standards and under permanent quality control programs by third party testing facilities as well as by the factory's own laboratories.

In case that any delivered product should not reach its specified performance there will be a 10 year warranty covering the functional quality of panels and accessories. The warranty is granted on condition that the latest Design and Installation Manual has been fully complied with.

Properties of the material

The printed colors may differ from the original shade of the color. To see the exact color, and when matching up colors on adjacent parts of a building, one must use the original panel samples.

The natural ingredients used in the fiber cement panels will to some extent determine the unique character of the material. The intensity and color tone may vary slightly depending on the production batch.

There for you

Contact us

Swisspearl's comprehensive offering of services and advice allows it to respond to the different needs of builders, façade builders, roofers, architects and planners in order to jointly develop informed solutions. Sharing knowledge plays a key role here.

Moreover, Swisspearl supports its customers with comprehensive specialist advice, detailed documentation, technical manuals and its customer magazine, which has become a renowned publication for planners and architects.

Please do not hesitate to contact us. One of our dedicated and knowledgeable staff will be happy to provide you with help and advice.

We look forward to helping you out.







BRAN GOLDSMITH THEATER

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