

#### Innovative Products for Façade and Cladding Systems



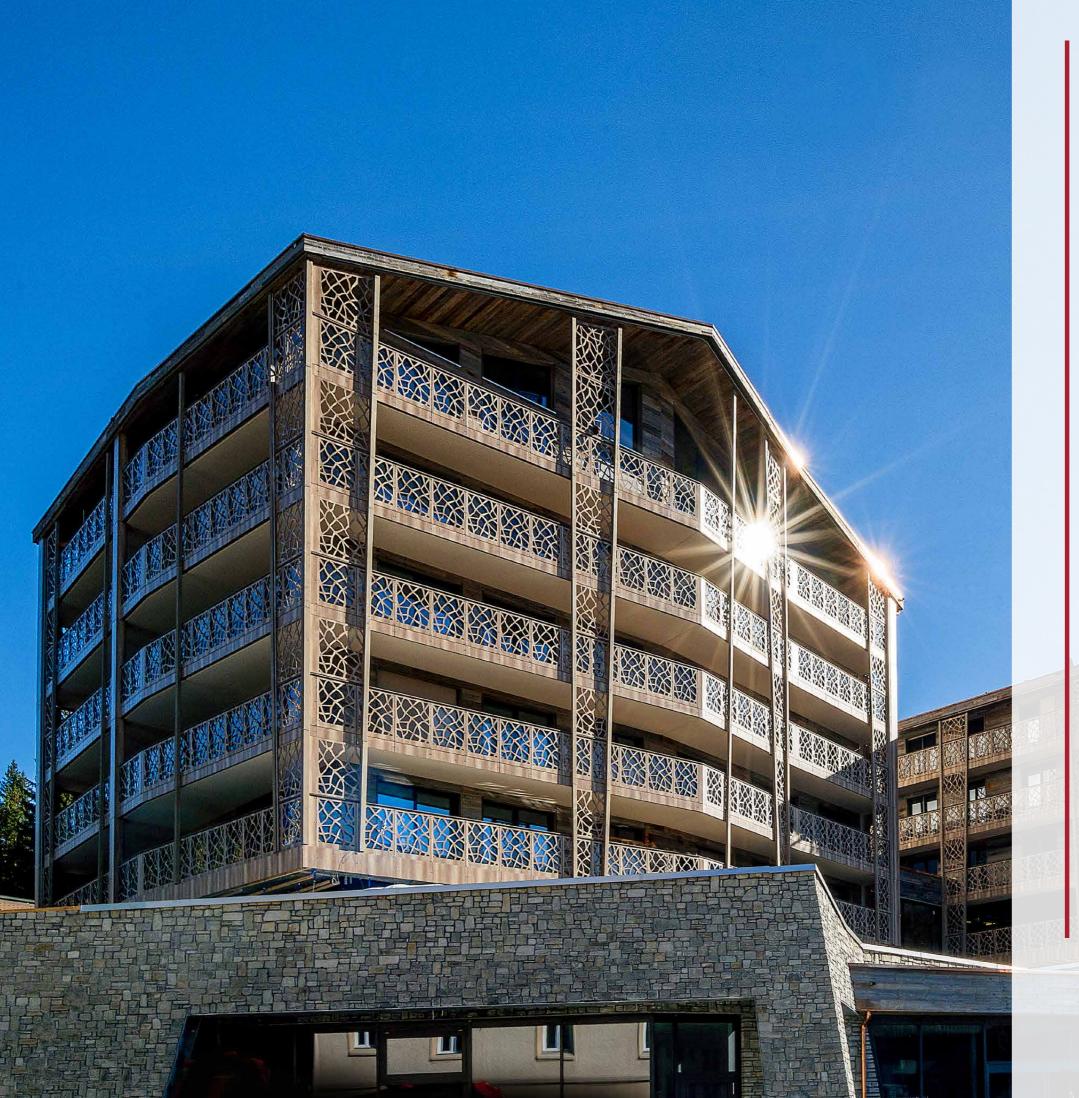
**Exterior Applications** 



Back-Perfor Balcor Balcor Landso



ents:	
eral Overview	2-5
-Ventilated Façades	6 - 13
prated Cladding	14-21
ony Balustrades	22-31
ony Acoustics	32 - 33
scaping Applications	34 - 36



more.

You can learn more about this in our brochures "Interior Applications" and "Exterior Applications" or on our homepage "www.bruag.ch".

These are the four cornerstones of our company philosophy:

#### Individuality

thing as off-the-shelf.

#### State-of-the-Art Technology

We use state-of-the-art laser equipment to produce smooth or perforated panels to your design and we finish them in our modern paint shop in more than 3,000 colour shades.

#### Innovation

extraordinary.

## Reliability

on time.

post.

Let yourself be inspired by the versatility of our products!

The days of minimalist architecture are well and truly over. Combining creative ideas with innovative production methods, results in a vast range of design solutions for interior and exterior applications – as only the sky is the limit for the ideas of architects and designers. Whether you choose a pattern from our range of over 100 standard perforation patterns or you design your own, is no problem for us. We produce exactly what you want. For example, for interiors: room dividers, wall panelling, stair railings and room acoustics, company lettering and all this in over 3,000 colours. However, our products can be used outside too: for façades, perforated terrace parapets, balcony partitions, sliding shutters, privacy screens and many

Maximum flexibility for creative minds – the best innovations come about when small ideas grow into big ones. Creating something unique is possible when architects and manufacturers work together. You too can benefit from such cooperation using our diverse products to achieve many different solutions. Because our motto is: There is no such

We are always searching for new materials and applications to complement our range of products to enable us to do the

Working with Bruag, you can trust us to deliver what you want

You can find technical information on all application areas and installation details, as well as our perforation pattern collection in the download section on our homepage. Alternatively, we can send them on request, by e-mail or

## **Overview**

## **Materials**

When it comes to exterior applications, we recommend using our materials CELLON® or Formboard top pine. While Formboard top pine is made from wood-based fibres with polyurethane bonding, CELLON<sup>®</sup> is a high-pressure laminate panel (HPL), consisting of 70% cellulosic web and 30% phenolic resin. The advantages of Formboard top pine are great value and ecofriendliness (as it incorporates recycled sawdust). The special bonding used means the panels can be used for exterior applications. Nonetheless, over time the surface may change to a small extent and the panels themselves will expand by about 3 parts per thousand. If you want the façade panels to retain the same surface quality even after years of use, CELLON<sup>®</sup> is your material of choice. CELLON<sup>®</sup> is completely moisture-resistant and expands by no more than 1 part per thousand.

Unlike conventional HPL panels, CELLON<sup>®</sup> stands out not only because of the variety of shapes and colours available, but also because of its natural look. The colour is applied directly to the resin and thus the top layer, which means that the sterile resin surface can't be seen, but instead that the colour concept is ideally emphasised. You have the choice between a wood-based material, which naturally changes over time, but is eco-friendly and inexpensive, or a solid core board, which is weather resistant and stable. In summary: you can choose between a wood-based panel and a high-pressure laminate. Because at Bruag every panel is individually laser cut, we deliver your panels ready for installation including the desired drill holes, assembly-related recesses, the sealing tapes for the substructure and the stoveenamelled screws.

Formboard top pine

Carrier Panel	Compact high-pressure laminate panel (HPL): 70% cellulosic web and 30% phenolic resin	Highly-compressed, polyurethane- bonded wood-based panel (without formaldehyde)	
Thickness	8 or 10 mm (other thicknesses available on request)	10 or 18 mm	
Raw Material Maximum Format **	3600 x 1800 mm or 3000 x 1280 mm or 2400 x 1200 mm*	2050 x 4050 mm*	
Charging	Net calculation		
Colour Choice	NCS S edition 2, RAL Classic, Bruag ALU		
Building Material Class	Bs1d0 = Standard	B2 = Standard B1 with special coating (additional charge)	
Fixing Method	HolzFix stainless steel screws + sealing ring (drill holes lasered according to your specifications, at no additional cost)		
Substructure	Back-ventilated, vertical spruce batten min. 27 * 80 mm; metal substructure also possible		

**CELLON®** 

\* Please note that the maximum width for our industrial coating machine is 1.30 m. Smooth panels over this size have to be hand-coated. Perforated panels which are coated in a different process may have any width up to the maximum format of the raw panel.

\*\* These formats are the maximum size of the respective raw material panel. However, our panels are cut exactly according to your wishes which must be smaller than the raw panel. Additionally, perforation can run uninerrupted across more than one panel. This allows you to combine panels seamlessly.



#### Advantages/Strengths of CELLON<sup>®</sup>:

- Resistant against weathering
- Individual shapes (incl. perforations and ornamentations) made possible by use of lasercutting technology
- Mechanically robust
- Scratch-proof, impact-resistant and shock-• resistant
- High breaking strength
- Does not become brittle over time
- Moisture-resistant •
- No swelling when exposed to moisture •
- Frost-proof
- Termite-proof •
- Extensive choice of colours (over 3,000 shades) •
- Light-fast colour treatment
- Natural appearance, matt surface
- Straight-forward installation

#### **Bespoke Shape** and Colour

Every element is designed, exactly to your requirements, cut to your plans to the millimetre, and coated in one of over 3,000 available UV-resistant shades. The edges of the panels are also coated in your choice of colour. Moreover, we are able to produce large format panels, whereby Bruag calculates the net amount used. You do not pay for wastage or pay anything extra for pre-cut holes.

In addition to giving you flexibility in terms of design, laser-cutting allows you to design the panels completely individually. You can design your very own perforation pattern, or select a pattern from more than 100 ready available patterns without extra cost and we will produce your design. We use DXF and DWG data formats.





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#### Advantages/Strengths of Formboard top pine:

- Individual shapes (incl. perforations and ornamentations) made possible by use of lasercutting technology
- Eco-friendly
- Good value for money (based on purchase price, incl. wastage)
- Moisture-resistant
- No particle loss as a result of moisture due to the polyurethane bonding
- Frost-proof
- High breaking strength
- Large formats with at no extra cost
- Extensive choice of colours (over 3,000 shades)
- Light-fast colour treatment
- Straight-forward installation



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For a complete overview of our designs visit the download section of our homepage www.bruag.ch. Of course, you can also create your own perforation pattern.

## **Back-Ventilated Facades**

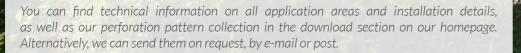
Individual Formats

Are you fed up of having to adapt your facades to the choices made available by the panel manufacturers and of having to pay extra for every little cut and every pre-drilled hole?

Then you have come to the right place. We accommodate your wishes and provide large-format facade panels exactly how you want them.







## Formboard top pine and CELLON<sup>®</sup> Show their Strengths

Sometimes a combination of Formboard top pine and CELLON<sup>®</sup> is the right solution and a number of school buildings in Winterthur designed by the same company exemplify this very well. While the designers, Baltensperger AG, used CELLON® in areas subject to more weathering, they chose to use Formboard in the other areas. The fact that Bruag used the same coating for both materials means that you can't tell the difference where Formboard top pine and CELLON® have been used. This well-thought out combination of our materials - that took into consideration the applications to which they are best suited – resulted in real cost savings.

Country / Place: Project Name: Material: Colour: Architect / Designe



Switzerland/Winterthur Winterthur Schools CELLON<sup>®</sup>, 8 mm; Formboard top pine, 10 mm NCS S 7010 R10B Baltensperger Seuzach

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#### Here's how weather-resistant CELLON® is

Temperatures above 40 degrees Celsius, sand storms, hurricanes, high altitudes or extremely humid environments: CELLON® is resistant to any external influences, even when perforated. Compared to Aluminium of the same thickness, CELLON<sup>®</sup> is considerably lighter and less expensive. Furthermore, CELLON® is mechanically robust, resistant against scratches and humidity, does not become brittle, is moisture-resistant frost-proof and termite-resistant. The high-pressure laminate (HPL) panel is available in a thickness of 8 and 10 mm. Shapes and colours may be chosen to suit your needs, the appearance is completely natural.



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### **Bespoke Panel Shapes** are the making of **Exceptional Buildings**

For their 'UNUS' project, the architects of Adank & Partner created modular housing units which are convincing not just from the perspective of their adaptability, but also with respect to their unique design. For the façade cladding, they chose to use CELLON<sup>®</sup>. Bruag's flexible production methods enabled the architects to tackle the building's unusual angles without encountering any problems; this was because they were able to order not only rectangular panels, but also conically-shaped panels. The cladding was delivered ready for installation, including drill holes. Plus, the fixings are not noticeable at all, because Bruag supplied stove enamelled screws in exactly the same colour as the façade panels.

Country / Place: Project Name:

- Material:
- Colour:

Architect / Designer:

nervawe

Switzerland/Kreuzlingen UNUS Kreuzlingen CELLON<sup>®</sup>, 8 mm RAL 9010, NCS S 1070-Y50R Adank & Partner Amriswil

#### Large-Format Façade Panels and Logos in the Same Material

Glowing yellow and brash green are the company colours of Neuteerbit AG in the Swiss city of Salmsach. This made it easy for the architects and the client to decide on which colours to use for the renovated façade of the road construction company's headquarters. The CELLON® panels used as façade as well as window frames and soffits were custom cut by laser and then colour coated in NCS and RAL shades. However, that wasn't everything; Bruag also supplied the prominent company logo. Bruag products make corporate identity easy and affordable down to the last detail. "The total freedom of shapes and colours made us choose Bruag," says architect Martin Holzner of Bischof Partner Architektur. By the way: four different RAL colours were used only for the company logo.

#### Unusual Ideas at no extra Cost

Whether it is CELLON<sup>®</sup>, Formboard top pine in large or small sizes, as unusual as your design may be - we only charge the net size of your panel so, you only pay what you get. We live our slogan: "Custom design does not have to be expensive". We also supply small quantities such as company logos in your desired colour and add additional holes for lamps or other installations. This not only makes the installation easier, but also much more efficient.

Country / Place: Project Name: Material Colour:

Switzerland/Salmsach Neuteerbit CELLON<sup>®</sup>, 8 mm NCS S 7500-N, RAL 1023, RAL 6037, RAL 3020, RAL 9016 Bischof Partner Architektur, Romanshorn

Architect:







### Completely New, Completely CELLON®

A plain façade combined with perforated elements:





# **CELLON®** Stripes

# **Back-Ventilated Facades**

Standard Formats

#### **Back-Ventilated Façades with CELLON® Stripes**

CELLON<sup>®</sup> Stripes, the small format alternative for vibrant façades. Whether a striped look or a striking pattern, the different installation methods and harmonious colour shades allow freedom of design in form and colour. With CELLON® Stripes you can create expressive architecture, easy, fast and inexpensive.

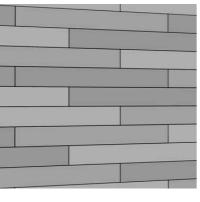
#### Why CELLON<sup>®</sup> Stripes:

- **Inexpensive**, compared to other products
- Available straight from our warehouse
- Choice of installation, **bonded** or with visible screws
- Lively interplay of colours due to carefully selected shades and a variety of installation methods
- Two light-weight, standard formats for quick and easy installation
- Resistant to humidity, frost and termites

#### The Shades



modern NCS S 6005-B20G NCS S 6505-B20G NCSS7005-B20G



classic NCS S 1502-Y NCS S 2002-Y NCS S 2502-Y



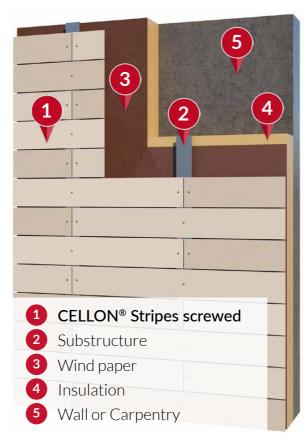
emotion NCSS1510-Y20R NCSS1510-Y30R NCSS1510-Y40R

#### Formats



#### Schematic Saçade Structure

Screwed





	-	1795 mm	
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#### Bonded



# **Perforated Cladding**

A building as individual as its owner?

Our delicately perforated facade panels transform every building into something unique. Choose from around 3,000 colours and over 100 standard perforation patterns or design your own. Whether large quantities or individual panels: We laser-cut each panel individually according to specification and never charge for wastage.



Delicate perforation patterns for interior and exterior application, functional aesthetics, urban design according to your individual concept: The flexibility in design is nearly unlimited. You can not only order panels according to your customised design idea, but also different panel sizes, designs or perforations running across several panels without interruption. And the best: Limitless design freedom and your very own corporate identity solutions are affordable.

The façade on the new showroom of Herbert Waldmann GmbH & Co. KG in Villingen-Schwenningen mirrors the business of the long-standing company, which specialises in high-end lighting. It was inspired by bionics. The back-lit perforated façade does not only work at night, but also by day due to its strong contrasts.

Country / Place: Project Name: Material:

Perforation: Colour: Architect / Designer:

You can find technical information on all application areas and installation details, as well as our perforation pattern collection in the download section on our homepage. Alternatively, we can send them on request, by e-mail or post.

# Perforation in Perfect Harmony:

Germany/Villingen Showroom Herbert Waldmann GmbH & Co. CELLON® 10 mm (Primary Façade), Formboard top pine 10 mm (Secondary Façade) Bespoke Design Exterior anthracite, Interior white RAL 9016 Gruppe 70 Thomas Scherlitz, Niedereschach



# A Delicate CELLON® Façade that Overcomes the Heavy Appearance of Concrete

This project demonstrates the type of delicate architecture that can be achieved using Bruag's perforated elements.

A monolith with sculptural character – this is how the residential and office building in Solothurn comes across. A vast exposed concrete screen is adorned by a perforated façade. This playful contrast invigorates the overall impression, imparting lightness and transparency. The organically-perforated surfaces serve to do away with the concrete's heavy appearance. Furthermore, the CELLON® panels were installed without using any bars, giving consistency to the perforation pattern, further reinforcing the generous appearance of the façade. The two materials of this building could not be more different – this is the very reason their combination brings out the best of both.



Country / Place: Project Name: Material: Perforation: Colour: Architect / Designer:

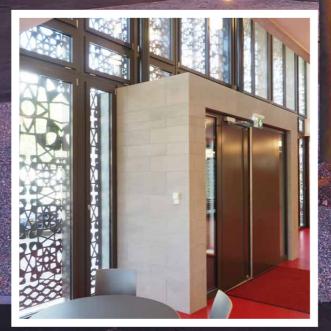
Switzerland/Solothurn Messer Multiple Dwelling, Solothurn CELLON®, 8 mm 40200 RAL 8019 ssm architekten ag Solothurn Alexander Gempeler Bern

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#### A Façade with Character

Bespoke perforation: you not only give your façade a unique touch, but you also give it its own distinctive and radiant look. The combination of the past and future by adding a modern yet custom element, for example, was used by the building owners in Rümlang. You choose shape and colour. We fabricate it. You can choose from our approximately 100 standard perforation patterns or design your own at no extra cost. Not only is the unique always possible, but also affordable.





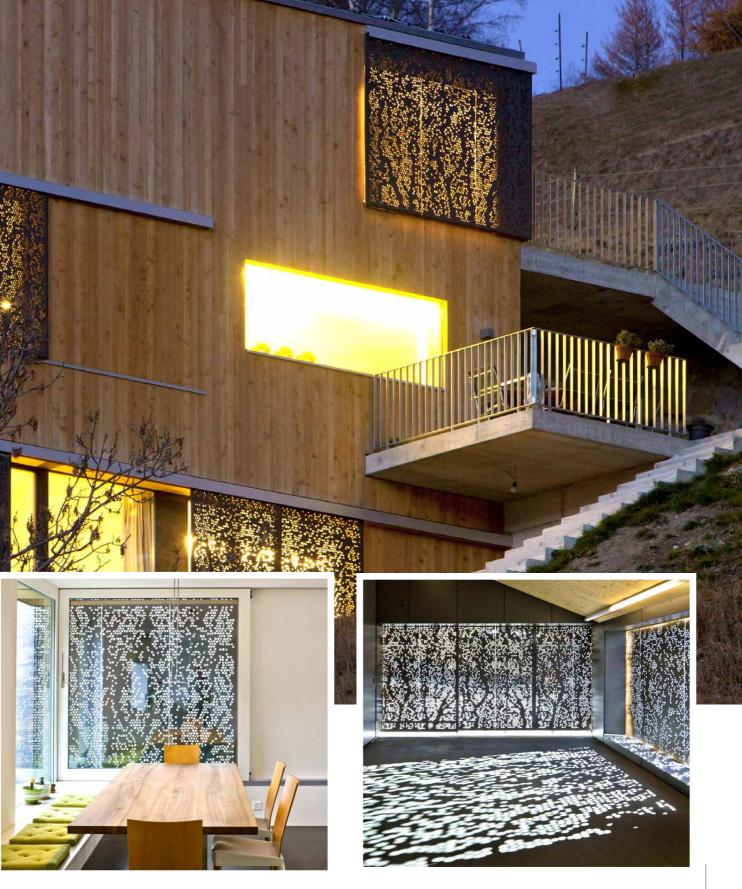
Country / Place: Project Name: Material: Perforation: Colour:



Architect / Designer:

Switzerland/Rümlang Building of Church Rümlang CELLON<sup>®</sup>, 10 mm Bespoke Design RAL 080 30 05 Langmeier Frei Architekten AG, Watt-Regensdorf





## Marriott Guests get Creative Balcony Cladding

The new Marriott Hotel in the Haitian capital of Port-au-Prince demonstrates the benefits of close, productive collaboration between architect and supplier. The Irish architect at the helm, Hugh Murray, was enthusiastic about the individuality offered by Bruag's products and working alongside the company, he developed a bespoke perforation. The outcome was a perforated façade and balcony cladding design inspired by Caribbean seaweed which really lived up to the client's distinguished name. The decision-makers did not only like the CELLON® panels due to their design, but also the CELLON® panels' ability to withstand extreme weather conditions, including hurricanes. It was furthermore possible to upgrade both new and existing balconies using Bruag's balcony balustrades, making both into highlights. If only everything in life was that easy!

Country / Place: Project Name: Material: Perforation: Colour: Architect / Designer: Photographer:

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の時間の時間

「山田」の時

## **Balcony Balustrades**

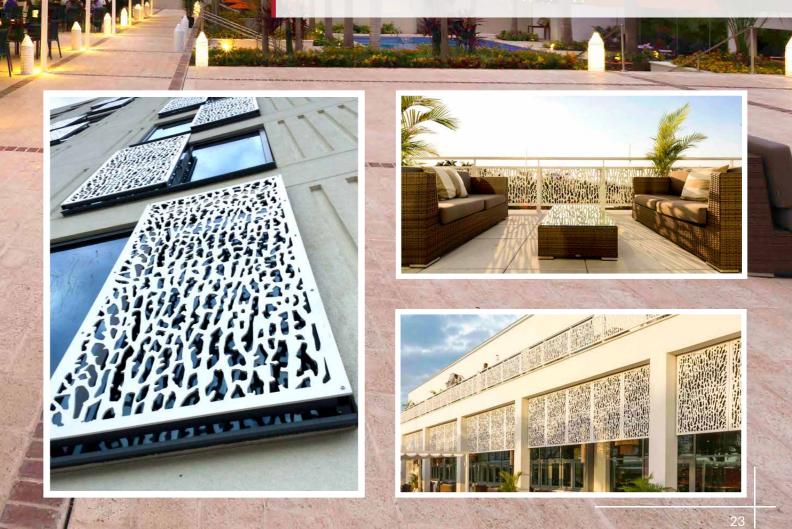
Are you looking for a stylish semi-transparent balcony balustrade?

Thanks to the complete flexibility of design offered by laser cutting, the transparency of the balustrades can be adapted to suit your needs. And CELLON® is weatherproof.

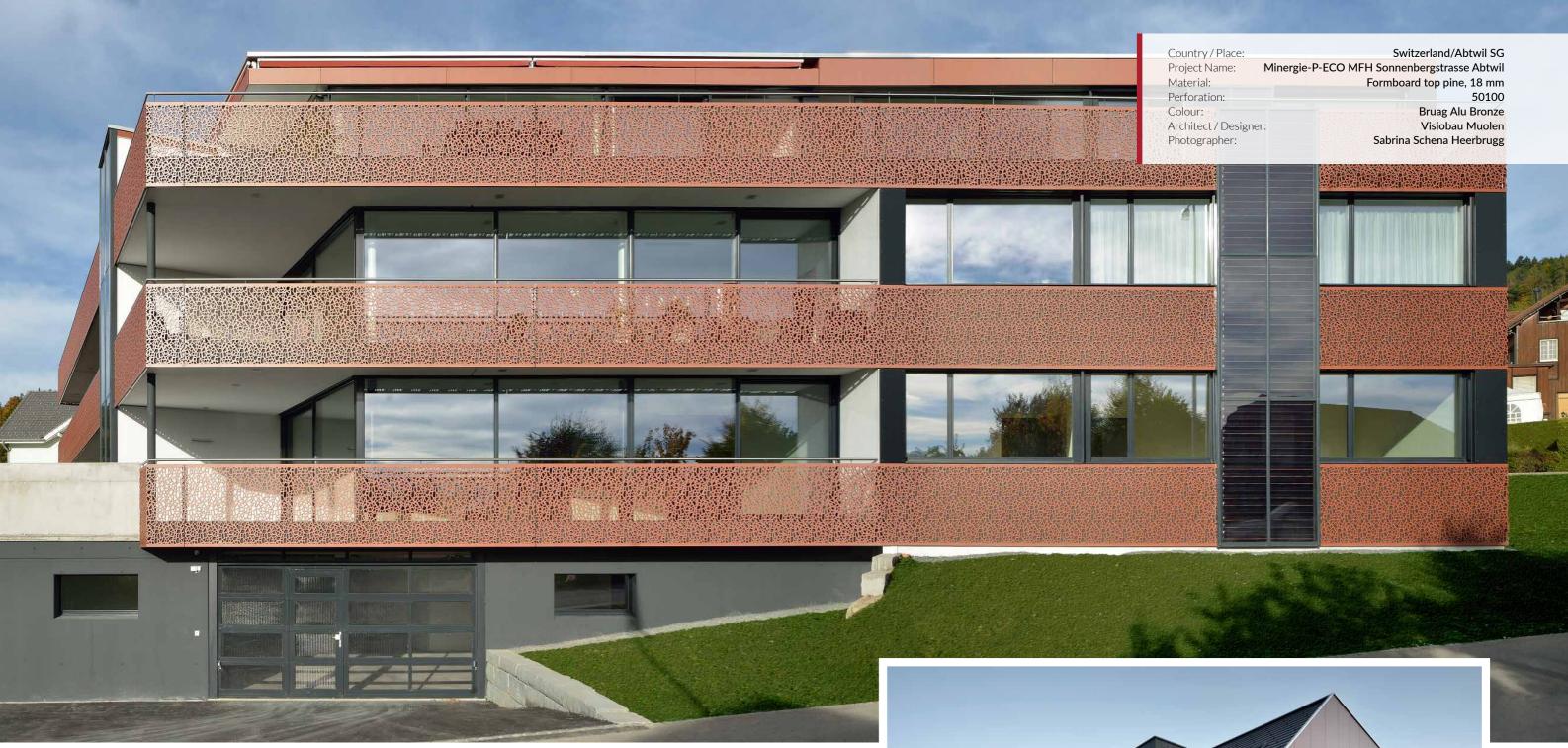
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Balustrades that can be made to match your design concepts - exactly!

You can find technical information on all application areas and installation details, as well as our perforation pattern collection in the download section on our homepage. Alternatively, we can send them on request, by e-mail or post.



Haiti/Port-au-Prince Marriott Port-au-Prince, Haiti CELLON®, 8 & 10 mm Bespoke Design RAL 9010 Hugh Murray Architects Dublin Seán Murray SMV Dublin



#### Seeing Without Being Seen

Not obstructing the residents' view while at the same time not allowing the residents to be too visible this is a conflict of interest which often confronts those designing balcony balustrades. Thanks to the way individual designs can be implemented, the degree to which Bruag's semi-transparent balustrades allow light through can be matched to residents' needs in a completely bespoke manner. The flexibility offered by our perforations additionally promotes interaction between light and shadow, such that the ambience on the balcony varies according to the time of day.

For this project, the architecture firm Visiobau opted to use Bruag products for the façade in addition to our balcony balustrades. Eco-friendly Formboard top pine panels perfectly fit into their concept of an eco-friendly building certified as Class A by the Ministry of Energy.



### Stylish in Every Detail: Completely Individual, Completely CELLON®

The multifamily homes located at a picturesque location next to Lake Zurich are proof, that Bruag products allow for individuality in every detail while limiting complexity. Ventilated façades, balconies and ceiling claddings and the garage door: all CELLON® and produced according to the individual wishes of the architect regarding shape and colour.



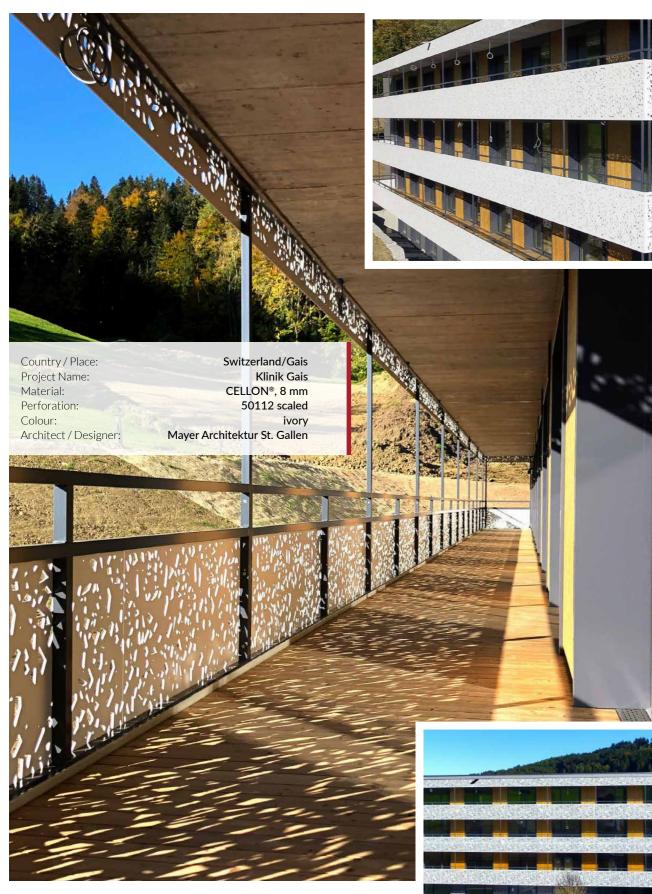






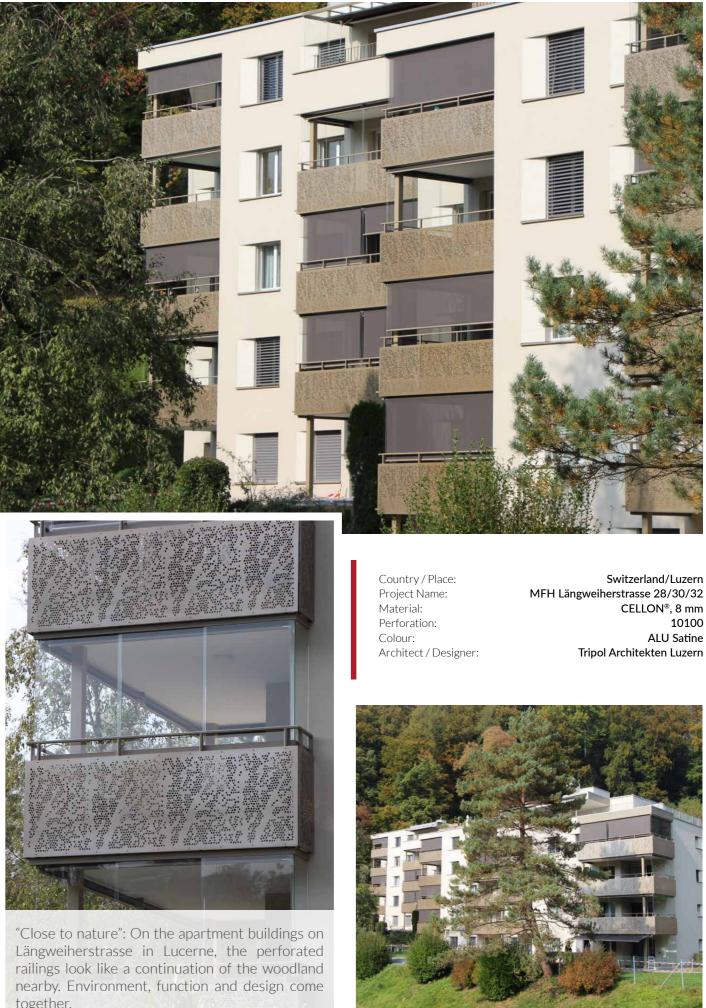
Country / Place: Project Name: Material: Perforation: Colour: Architect / Designer:

Switzerland/Kilchberg Multiple Dwelling Seestrasse 108 Kilchberg CELLON<sup>®</sup>, 8 & 10 mm Bespoke Design Bruag Alu Gold, Bruag Alu Schiefer dark Rota Architekten, Zurich



#### In the World of Nature

"Expierencing the seasons": The clinic Gais in the Swiss countryside differentiates itself with outstanding cuisine and picturesque environment. Thanks to a new building, the clinic also offers contemporary architecture. The most remarkable feature are its semitransparent balcony claddings running across the entire façade. The play of light and shadow conjures up very different moods in the patient's rooms depending on the position of the sun.



together.

#### **Functional Beauty**

Beautiful, unique, safe and even child-friendly. EPH Dresden confirms sufficient stability as fall protection for perforated CELLON<sup>®</sup> panels even with up to 45 percent open area. There are almost no limits to the flexibility of design of balcony parapets.

From concept to CAD, from CAD to the laser-cutting equipment, from the laser to the industrial coating machine and finally the finished product, we give every building a distinctive look with unique seasonal light and shadow.

Cheerfully patterned in a warm red colour, the panels in this day care centre in Gilching, are not only a creative highlight, but also the perfect protection for children bursting with energy.

Country / Place: Project Name: Material: Perforation: Colour: Architect / Designer:

Germany/Gilching Kindertagesstätte Gilching CELLON<sup>®</sup>, 10 mm; Formboard top pine, 18 mm **Bespoke Design** RAL 3000, RAL 3011 Michaela Weingut, Hirner & Riehl Architects, Munich Julia Schambeck

Photographer:

Fall prevention tests carried out at EPH in Dresden, Germany, have attested to the stability of the CELLON® panels when used as balcony balustrades, even in the case of an open surface of up to 45 percent. This provides enormous flexibility of design. The exact test results, along with additional information, can always be found in the download section of our homepage, www. bruag.ch.





An urban façade with a unique character thanks to efficient and functional balcony balustrades: The example located in Moislinger Allee in Lübeck, Germany, shows that French balconies can be much more than a railing for windows. With their individual shape and color, the weatherproof, perforated CELLON® panels, allow different light and shade to enter living spaces depending on the sun, they also provide elegant discretion and perfectly complement the overall image of the beautiful façade.

Country / Place: Project Name: Material: Perforation: Colour: Architect / Designer

Photographer:



#### French Balconies as **Design Feature**

Germany/Lübeck Neues Wallufer, Moislinger Allee 9 CELLON<sup>®</sup>, 10 mm Bespoke Design RAL 1036 SCHÜMANN SUNDER-PLASSMANN UND PARTNER mbB Lübeck Nils Bergmann



Everyone else is noisy. But we all drive a car. Your problems are solved – with Bruag's new acoustic elements. The solution is noise reduction – and what better way to achieve it than an acoustic system that aesthetically improves your balcony?

You can find technical information on all application areas and installation details, as well as our perforation pattern collection in the download section on our homepage. Alternatively, we can send them on request, by e-mail or post.

Country / Place: Project Name: Material: Perforation: Colour: Architect / Designer: Photographer: Switzerland/Winterthur MFH Schaffhauserstrasse Winterthur Formboard top pine top pine, 18 mm 50200 RAL 9016 Architekturbüro Frei + Graf AG Weinfelden Hollenstein Architekten Winterthur

#### An Effective Acoustics System

Noise is a daily issue in populated areas. More and the commore apartments are being built close to roads and railway lines. This requires use of efficient noise reduction systems. Bruag's acoustic solutions for interior and exterior applications provide a reduction been in noise pollution. On the one hand, the Bruag system reduces the noise from the streets or the railway. On time.

In addition to exterior applications, we also have various room acoustic systems for the interior. For more information and advice on levels of absorption, see www.bruag.ch or our interior applications brochure.





the other hand, conversations held on the balcony cannot be heard by neighbours and passers-by. The degree of noise reduction achieved by Bruag's system has already been tested and its effectiveness has been confirmed: the acoustic panels can reduce noise by over 15%. The system also reduces reverberation time.

# Landscape Applications

Are you looking for a garden that is going to be your ideal retreat?

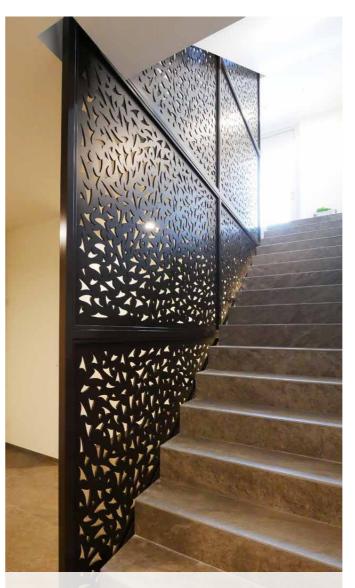
These days, the gap between housing units is getting ever smaller. We can provide you with stylish semi-transparent partition walls, plus other products for garden design.





Maximum view along with privacy. The inhabitants of the building complex "Quäderle" in Vaduz can enjoy the benefits of living in Liechtenstein's capital while still being in a green environment. However, this is not the only unique feature of the project. "We wanted to take up the grapevines which have been on the site for a long time, says Architect Alex Wohlwend. The green façade and the perforated CELLON<sup>®</sup> panels used in the stairway are further eye catchers and embody the architect's vision of a complex combining countryside and urban living. The balcony claddings and stair railings have been coloured in a warm dark brown. In contrast to that, the balcony partition walls have been coated in a brighter color and were produced in one piece.

You can find technical information on all application areas and installation details, as well as our perforation pattern collection in the download section on our homepage. Alternatively, we can send them on request, by e-mail or post.



Country / Place: Project Name: Material: Perforation Colour: Architect / Designer:

Liechtenstein/Vaduz MFH Quäderle Vaduz CELLON<sup>®</sup>, 8 mm & 10 mm 50402 RAL 8019, NCS S 050 Y40R Wohlwend Architektur Vaduz

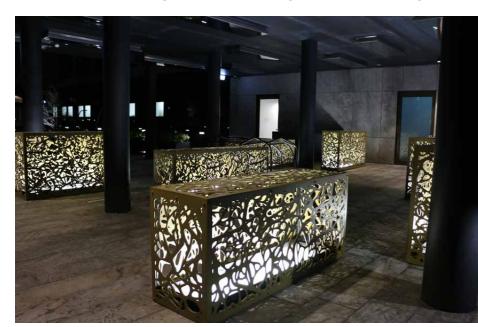






### Oriental Garden Design made possible by Playful Perforations

Perforated CELLON<sup>®</sup> panels are also ideal to use in garden design and they can be used for a wide variety of applications: For example, as a privacy screen, garden shed cladding, plant pot or even light box.













# Interiors







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