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ARCHI  
TECTURE

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The brilliance  
of rainscreen

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IN TANDEM

When old dormitories  
become halls  
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100 % SPORT

An elegant  
sash

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100 % LEDS

Let there be light!

number  
**1528**



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# EDITORIAL

## Reflections, transparency, opacity

Architecture is a profound, fundamental and necessary human activity.

Architecture speaks of and to humans; it creates the backdrops to their lives, their homes, their neighbourhoods and their cities. It speaks of people and thus of society, and the interactions between its individual members.

Reflections, when we see in others what we are ourselves or would like to be.

Transparency, in the form of the sincerity and trust we offer and receive.

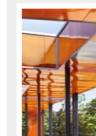
Opacity, in the privacy we want to keep for ourselves.

Reflections, transparency, opacity: three levels of interpretation and communication. Three architectural choices, made possible by our systems and expressed by our talented customers throughout the world.

They share their vision with us, and we thank them for it.

Enjoy reading about them.

The editors.



COVER PICTURE  
© Rémi Villaggi

© Fred Laues

Feature focus

# THE BRILLIANCE OF RAINSCREEN

NEW BUILD

## CLARITY AND IMMATERIALITY

In both new-build and renovation, architects often use the effects created by materials, colours and forms to make their buildings stand out in an urban landscape that is more constrained with every passing day.

While Danpalon® rainscreen, used as a ventilated exterior cladding, allows for this kind of very visual expression, this is not necessarily its most common purpose. And the success of the opal, clear and ice colours shows how interested project managers are in another property of the material: its ability to create buildings with a certain immateriality; to create imposing buildings without imposing them.

With cladding that is more or less transparent, the pale colours of Danpalon® rainscreen have the ability to reflect natural light and create different vibrations and intensities with effects of light and shadow depending on the time of day and the angle of the sun. A form of architectural expression that suggests more than it reveals, and integrates buildings gently into their surroundings by creating breathing spaces that are all too welcome in our urban landscapes.

## BRILLIANCE AND LINEARITY

Housing in ZAC Rives de Seine ■ Boulogne-Billancourt (France)

These two eight and nine-storey housing blocks appeal by their harmony and fine finishes.

At the end of 2014, the SBBT architecture firm (Paris) delivered the second stage of the construction of 187 apartments, divided between two buildings with exterior thermal insulation. This was a high-profile project for the municipality of Boulogne-Billancourt, as it is located in a former Renault industrial site known as the "Trapèze" in the ZAC (joint development zone) of Seguin.

Ultimately, the development will include nearly 30,000 m<sup>2</sup> of housing. "To give all the apartments an interior quality, we designed duplex apartments on the ground floor. And to create a transition between the housing space and the

urban space, we incorporated screen-printed glass in the loggias," explains architect Sophie Berthelie. Another guiding theme of the project is the wrap-around balconies running along all the facades, giving all the apartments the benefit of outdoor space.

### Linear facades

As for the materials used, Sophie Berthelie selected them for their "matt and glossy materiality" as part of the overall effect. The choice of a microcellular polycarbonate rainscreen cladding fits into this context. "We were looking for a cladding suited to the constraints of the northern facade. Danpalon® rainscreen cladding has the unique property of reflecting light and provid-

ing shine. Depending on the season and the time of day, its nuances vary from white to light grey. You can feel the material! The choice enabled us to achieve a building with a uniform, consistent response to light," adds Sophie Berthelie.

### Playing with Contrast

To accentuate the linearity and shine of the facades, the architect also took great care with the finer details of the project. Working with the manufacturer Dacryl, she designed

railings using perspex encrusted with aluminium flakes and decorated the panels separating the balconies with sheets of mirror-polished stainless steel. The whole project was drawn at 1/10 scale to ensure the greatest possible precision and avoid the need to cut Danpalon® rainscreen on site. The goal? "To ensure the product would last and achieve the best effect," concludes the architect. ▶▶

DANPALON® RAINSCREEN CLADDING HAS THE UNIQUE PROPERTY OF REFLECTING LIGHT AND PROVIDING SHINE.

The PROJECT

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■ Ventilated Rainscreen, Danpalon® BRV 8, 600 mm, opal, 2,000 m<sup>2</sup>

# Feature focus THE BRILLIANCE OF RAINSCREEN

NEW BUILD

## BRILLIANCE AND LINEARITY

### The PROJECT

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INTERVIEW ■ PRODUCTION DIRECTOR ■ BATEX

Thierry Lambert

#### What was your responsibility?

■ TL: We were in charge of installing the cladding on the facades and balconies. It was a major project with over 2,000 m<sup>2</sup>, requiring five to six people on site. Despite the large area of Danpalon® rainscreen cladding, the project went fairly quickly because we only had one framework to install!

#### So you weren't confronted with any particular problems or difficulties?

■ TL: Between the first phase of construction (delivered in 2012) and the second, delivered in 2014, the techniques for fitting Danpalon® rainscreen products evolved. Between the two phases, Everlite Concept developed a profile that hides the fixed points in the lower sections.

#### The project manager wanted all the cladding panels to be cut in the factory. What did that change for you?

■ TL: It made our work easier. When you have to cut Danpalon® rainscreen lengthwise on site, you need to vacuum up the dust to avoid it becoming encrusted in the panels.

#### Did the installation operation go well?

■ TL: Fixing the rails is the part where you can't compromise. If that is done properly, the work goes quickly. There was one issue on this site due to the height (eight and nine storeys). We had to set up scaffolding and anchor it to the facade. This meant we had to leave spaces on the facade where the scaffolding was anchored, and then come back and cover them up when the scaffolding was taken down. ■



© Philippe Rioult



■ Ventilated Rainscreen, Danpalon® BRV 10 and 12, 600 mm, ice, 867 m<sup>2</sup>

## PLAYING WITH REFLECTIONS

Chennevières school ■ Conflans-Sainte-Honorine (France)

### 3 Questions for CEDRIC MENU

ARCHITECT AT THE PARTICULES FIRM

#### What did this project involve?

The goal was to integrate a building for extracurricular activities (400 m<sup>2</sup> over two floors, including four rooms of 60 m<sup>2</sup>) into the Chennevières school complex in Conflans-Sainte-Honorine (Yvelines), nestling in the corner of the existing L-shaped main building. Although the project is minimalist in terms of the materials used, we designed a bright, fun building that breaks away from the austerity of the previous building while still fitting in with its architectural style.

#### In that case, why didn't you choose a brightly-coloured facade?

We decided to bring the building to life with reflections in the facade. That was our choice. We looked for a material able to create a play of light and shade and respond to the reflections in the horizontal windows on the ground floor. The Danpalon® ice rainscreen cladding solution was an obvious choice. We even achieved a slightly transparent effect, giving a glimpse of the kraft finish on the rock wool insulation beneath the cladding.

#### So where is the fun aspect?

It's definitely there! For one thing, we hope the children have claimed the building and enjoy the play of light and reflection. And we also kept a playful note by painting the window frames in four bright colours, using the same colours in the interior design (on the floor, on doors etc.). ■

### The PROJECT

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#### PROJECT COST

■ 680,000 euros

# FRESH AIR IN THE CITY

From the Blériot building in Tours to the Jules Verne building in Rennes, these externally insulated projects lie at the heart of new residential districts built to relatively dense, constrained plans. In both cases, the choice of Danpalon® clear rainscreen cladding has created an effect of lightness and breathing space.

## JULES VERNE RESIDENCE

■ Rennes (France)

In south-western Rennes, the district of La Courrouze is coming to life. Begun during the 2000s, the development of these 115 hectares is due for completion by 2020. Ultimately, it should house 10,000 residents and provide 3,000 jobs. In the middle of the office blocks, shops and public amenities stands the Jules Verne Residence, a block of apartments designed by the David Cras architecture firm. "The 53 apartments are divided between three blocks, with the ground floor occupied by business premises (five in all). This fairly cramped plot, already defined by the urban planning scheme, left us little room for creativity. Under these conditions, the treatment of the fa-

cade is a means of expression," explains the architect, David Cras. He thus selected Danpalon® clear rainscreen, not for its insulating properties or its ability to refract light but to create an impression of immateriality. "Creating an imposing building that doesn't impose itself," he summarises. Installed on the northern facade, the Danpalon® panels also smooth and unify the surface. "The northern exposure is often difficult to treat because there are lots of small windows," adds the architect who combined the Danpalon® cladding with a white opacifying agent to avoid "uncontrolled sun reflections" on the building. "It is a silent presence," concludes David Cras. ■

## The PROJECT

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■ Ventilated Rainscreen, Danpalon® BRV 16, 600, 900, 1,040 mm, clear white eclipse, 1,533 m²



# THE BRILLIANCE OF RAINSCREEN

Feature focus

NEW BUILD



■ Ventilated Rainscreen, Danpalon® BRV 16, 600 and 900 mm, clear white eclipse, 1,158 m²

© Rico Burbant

## BLERIOT RESIDENCE

■ Tours (France)

Located in northern Tours, a small new neighbourhood known as Îlot Colombier is beginning to emerge. On a 1.9-hectare plot, the project client has undertaken a building programme that will result in 140 homes, a community space and an office building. The Residence Blériot consists of two five storey buildings linked by a central glazed

atrium. "This atrium, which houses the lifts and staircases, gave me the framework of the building. I used Danpalon® clear rainscreen cladding with a white opacifying agent, because this colour goes well with the glass and gives the building an immaterial appearance," comments the architect, Jean-Yves Barrier. "Here, the Danpalon® clear rainscreen is a living part of its en-

vironment. When the sun shines, it glistens. When the sun goes down, it takes on new depth with a greater variety of colours. What's more, it reflects the surroundings, enabling it to blend into its urban setting by creating a pause for breath between the new buildings with their various styles," he concludes. ■

## The PROJECT

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Feature focus

# THE BRILLIANCE OF RAINSCREEN

NEW BUILD



## TRANSCENDENT LIGHT EFFECTS

Léonard de Vinci school ■ Massy (France)

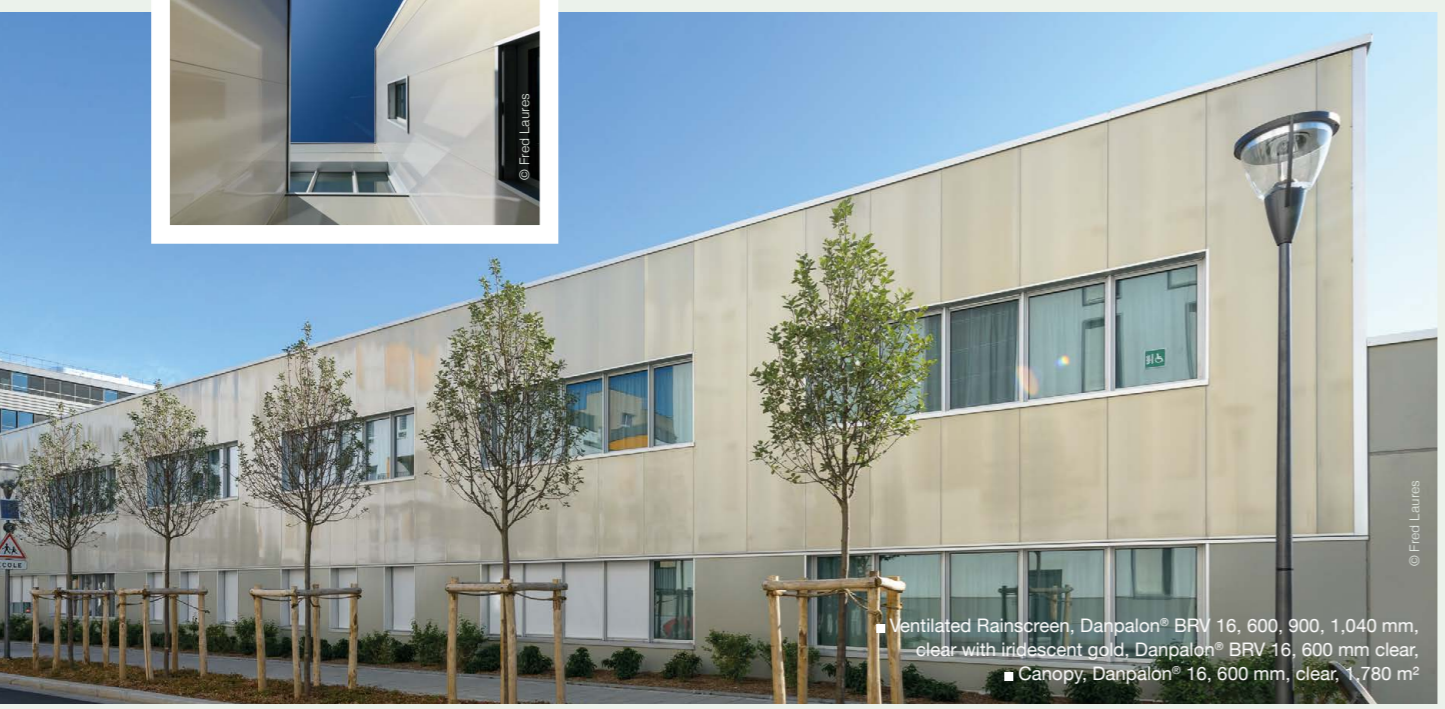
In the heart of the ZAC (joint development zone) of Atlantis in Massy (Essonne), the Léonard de Vinci school complex is part of a fast-changing area housing many buildings with brightly coloured facades. To integrate the 17-class school (nursery and primary) into this new urban space, the municipal architect Pascale Colin took the opposite direction from the dominant construction model, favouring an effect based on

materials rather than colour. "I wanted to create a building that would evolve with the movement of the sun, with a fairly unified colour scheme. In the morning, the school complex is white and luminous, while in the afternoon it takes on warmer shades," explains Pascale Colin.

### Elegance and restraint

To achieve this result, the architect selected two separate facade claddings to embellish the building, which has a floor area of 4,500 m<sup>2</sup>. The structural

elements, made of prefabricated concrete panels, are painted with a gold stain, and the remaining 1,780 m<sup>2</sup> of the facade is covered with Danpalon® clear with iridescent gold rainscreen. These single-height panels, rising up to nine metres, break up the monolithic, rigid, matt appearance created by the concrete panels. The result? A restrained, elegant building for about 8 million euros. "Danpalon® rainscreen provided the vital touch of lightness for the project," adds the architect. ■



■ Ventilated Rainscreen, Danpalon® BRV 16, 600, 900, 1,040 mm, clear with iridescent gold, Danpalon® BRV 16, 600 mm clear, ■ Canopy, Danpalon® 16, 600 mm, clear, 1,780 m<sup>2</sup>

### The PROJECT

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RENOVATION

## TRANSLUCENT SKIN OVER A WOODEN STRUCTURE

Lully school ■ Lully (Switzerland)



## 3 Questions for PASCAL DE BENOIT

ARCHITECT AT THE FIRM OF PASCAL DE BENOIT & MARTIN WAGNER ARCHITECTES SA

■ Ventilated Rainscreen, Danpalon® BRV 12, 600 mm, clear with iridescent gold, with adhesive tape, 160 m<sup>2</sup>

**How did you integrate this building without taking up too much of the space available (part of the playground)?**

■ **PDB:** We had only two classrooms to add (250 m<sup>2</sup>), so we wanted a light construction that would blend in without being too imposing. We decided to place the building at a height, diagonal to the existing building, preserving the view and making the most of the light from the east. The materials also contributed to the overall harmony. By choosing cladding made of aluminium sheets and Danpalon® clear with iridescent gold rainscreen, we worked with colours that blended with the yellow sand-lime brick of the existing building. The building is contemporary without being a visual assault. This was what the project client wanted.

**Wouldn't a glass facade have created greater lightness?**

■ **PDB:** The translucent effect of the Danpalon® rainscreen contributes to the lightness. It's an interesting material in terms of the shifting reflections and the immateriality it creates. Initially, the project was conceived with a free-standing glass solution. But this would have been much too expensive. The polycarbonate cladding helped to balance the budget for the project.

**Is there a sustainable development aspect to the project?**

■ **PDB:** That's a fashionable concept! But yes, the building has a wooden frame, prefabricated in the workshop and insulated. The Danpalon® rainscreen creates a watertight skin to which we fixed letters of the alphabet. That's the fun educational touch a school project needs! ■



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Feature focus

# THE BRILLIANCE OF RAINSCREEN

RENOVATION

## A CLEAR VISUAL SIGNAL

La Chartrie housing ■ Descartes (France)

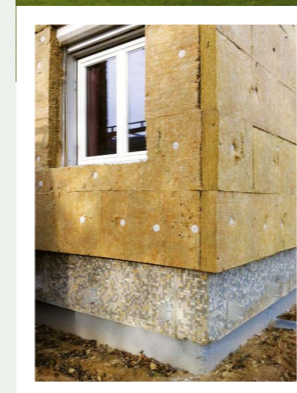
■ Ventilated Rainscreen, Danpalon® BRV 16, 900 mm, bronze white eclipse, clear with iridescent gold, orange white eclipse, 475 m²

For the town of Descartes (Indre-et-Loire), renovating the La Chartrie site to improve its energy performance was a strong political gesture. Why? "The site, which covers 9,000 m², lies at the meeting point between two former municipalities, which have now merged. The project client thus wanted to create an ensemble that would be very graphic and colourful," sums up the architect, Stéphanie Gherissi.

### Energy sieve

The firm SG Design Architecture was entrusted with the first phase of the work, renovating a two-storey block of eight apartments dating back to the 1960s, with the occupants in residence. A real energy sieve whose performance had to be improved, while making the new exterior "a strong visual signal", recalls the architect. "This dual requirement guided us in the choice of thermal insulation for the exterior, which we clad with Danpalon® rainscreen in several colours: orange, bronze and clear with iridescent gold." The result? A striking building whose colourful, iridescent appearance changes with the time of day... with energy savings approaching 30%. Further phases of the work are currently in progress. Most of them include colourful Danpalon® rainscreen solutions. ■

on® rainscreen in several colours: orange, bronze and clear with iridescent gold." The result? A striking building whose colourful, iridescent appearance changes with the time of day... with energy savings approaching 30%. Further phases of the work are currently in progress. Most of them include colourful Danpalon® rainscreen solutions. ■



BEFORE RENOVATION



## 3 Questions for

David Memin  
TECHNICAL OFFICE MANAGER  
■ CIBETANCHE

### Was this your first experience with this polycarbonate facade cladding?

We had done projects with Danpalon® rainscreen before, but never with different coloured panels. It required more careful organisation on site and a good knowledge of the products' mechanical properties. For example, the different colours do not have the same heat absorption capacity, which affects the techniques used.

### Is the product well suited to renovations?

The product is just as easy to install in new-build or in renovations, as long as the layout work is correct, as the product has a much better aesthetic with an even surface. What's more, as we were working on an existing building, the Danpalon® rainscreen panels did not correspond to the width of the existing openings. This required extra care in cutting the panels, as the architect wanted the cladding panels to cover the whole height of the building (6,840 mm).

### How was the exterior thermal insulation achieved?

To avoid any nasty surprises, we took measurements in advance and tested whether the fixings could be dislodged. We then fixed the Danpalon® rainscreen framework (connectors) to the existing concrete structure, which itself was covered with a mosaic of small 5x5 tiles, before inserting our insulation and positioning the Danpalon® cladding, adding about 25 cm to the thickness of the building. ■

## The PROJECT

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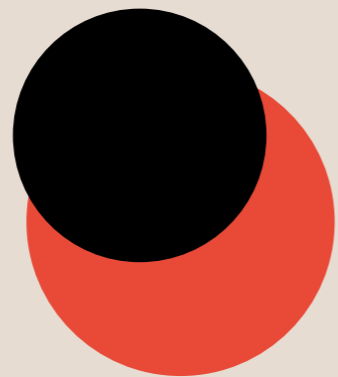
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# SNAP SHOT



## 1 VILLA BRITANIA APARTMENTS. TOULOUSE (FRANCE)

Ventilated Rainscreen, Danpalon® BRV 12, 600 mm, red, 163 m²

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## 2 MULTICULTURAL SPACE. NARBONNE PLAGE (FRANCE)

Ventilated Rainscreen, Danpalon® BRV 8, 600 mm, red, 260 m²

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## 3 MAIDAGAN PARK. GETXO. BIZKAIA (SPAIN)

Canopy, Danpalite multicoloured, 705 m²

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# In TANDEM

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WHEN OLD DORMITORIES  
BECOME HALLS OF RESIDENCE

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HIGH-END  
RENOVATION

P 20-21  
BETWEEN HEAVEN  
AND EARTH

P 22-23  
FLAWLESS VISIBILITY

P24  
INVISIBLE CHAPEL

## Mixing MATERIALS

When Danpalon® combines with other materials, it's never just a coincidence. The blends dreamt up by project designers result in buildings with unique aesthetics, favouring wood/polycarbonate or polycarbonate/metal construction systems. Buildings that take the best from each material – the warmth and softness of wood or the strength of metal – to create a primary structure which provides the setting for the luminosity and translucency of polycarbonate cladding. How to highlight a structure by enhancing it through clever little touches...



# WHEN OLD DORMITORIES BECOME HALLS OF RESIDENCE

Laval agricultural college ■ Laval (France)

Goodbye dormitories, hello halls of residence! At the Laval agricultural college (Mayenne), nearly 350 students can now sample the charms of this new building whose aesthetics rival those of conventional housing.

**B**uilt using a modular pre-fabricated wood system, the new accommodation block at the Laval agricultural college is part of a protected site surrounded by huge expanses of fields just outside the town. "We were building on contour lines, which led to curved installations fitting the shape of the ground," explains Philippe Vaulet of the firm GDV Architecture (Charente-Maritime). Extremely unusually, the project was

delivered several months ahead of schedule. The use of wooden two-storey modules, built and finished in the factory, was largely responsible. "All we had to do was assemble them on site," summarises the architect.

#### Visual signal

To enhance the appearance of the building, the project manager incorporated Danpalon® rainscreen cladding on the staircase facades and the entrance porch. "We played with three colours – green, opal and clear. We

added a white masking finish to the inside skin of each panel for greater clarity." With its irregular framework, "the Danpalon® rainscreen adds a playful note to these tall towers," adds Philippe Vaulet. The four passageways linking the sleeping areas consist of a wooden framework clad with Danpalon® clear, opal and green panels that recall the colours of the staircase towers. "This adds lightness to the overall effect and diffuses natural light through these transit areas," concludes the architect. ■



■ Facade, Danpalon® 8, 600 mm, green and clear  
■ Ventilated Rainscreen, Danpalon® BRV 8, 600 mm, green with green eclipse, opal white eclipse, clear white eclipse, 675 m²

## Interview

Lionel de Vannoise ■ SITE SUPERVISOR ■ ISORE BÂTIMENT

**You were responsible for two separate aspects of the site. One was cladding the four passageways with Danpalon®. What were the challenges?**

We had to fix two different colours of Danpalon® to the wooden framework. To fix the cladding, sometimes to framework 6.5 metres high, the structure had to be perfectly set up. This required perfect coordination between the different roles. We also had to work

on positioning and integrating the windows (600x1200 mm) and smoke extraction ducts (1200x600) without disturbing the building's watertightness and airtightness.

**How did the installation of the rainscreen system on the stairwells go?**

That might look simpler, because we were working with complete panels without cut-outs. But we still had to

deal with three different frame heights and three different colours. We also had to come up with a custom system, working with Everlite Concept, to ensure that rainwater run-off would not damage the facade. That was the main difficulty. ■

## The PROJECT

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# HIGH-END RENOVATION

Marius Régnier sports hall ■ Puteaux (France)

At the heart of the park on Puteaux island, the Marius Régnier sports hall lies alongside the new Palais des Sports pool, borders the Seine and enjoys breathtaking views over the Défense towers. To preserve the ageing hall, the municipality wanted to renovate the building. It entrusted the task to the firm Axis Architecture. "Despite an interesting construction principle, with a main structure of laminated wood consisting of curved gables, the gymnasium suffered from a high level of energy loss and an almost total lack of natural light. Moreover, the facade of timber panels was flat, with no relief," explains the architect, Tanguy Rodier.

## New translucent skin

To preserve the architectural identity of the timber building, ensure good thermal performance and, above all, introduce more light, the architect retained just the basic struc-

ture and designed three new facades consisting of glazed strips at the bottom of the walls "to conserve the views over the park" and Danpatherm K7 ice Softlite curtain walls with excellent impact resistance (interior O3). "This solution provided excellent natural light perfect for use in a sports hall because of the anti-glare nature of the material," sums up Tanguy Rodier. To counter the direct light, the project manager also fitted a timber sun screen in front of the Danpatherm K7 panels. These timber strips "are single pieces, some of them up to 8 metres tall," adds the architect.

## Respect for the timber structure

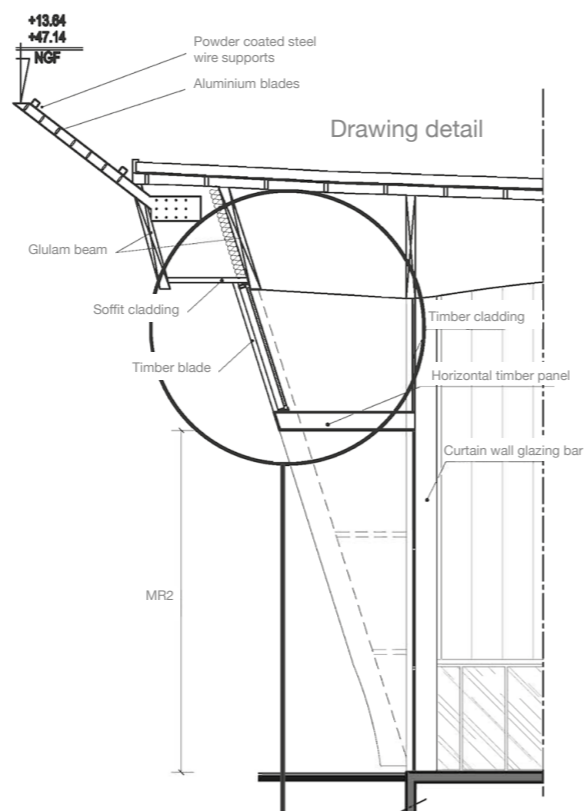
"Apart from its translucency, the neutral colour of the polycarbonate emphasises the curves of the wooden timber structure and the external metal posts," explains the project manager, who chose to ensure the Danpatherm K7 was installed in a simple form in order to emphasise the shape of the structure. "The lightweight nature of the product made it easy to install, especially at the high level, diagonal sections," he concludes. ■

## The PROJECT

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THE NEUTRAL COLOUR OF THE POLYCARBONATE EMPHASISES THE CURVES OF THE WOODEN TIMBER STRUCTURE AND THE EXTERNAL METAL POSTS

In TANDEM



■ Facade, Danpatherm K7, 600 mm, ice Softlite, 1,560 m<sup>2</sup>



In TANDEM

# BETWEEN HEAVEN AND EARTH

Energy Recovery Facility ■ Suffolk (United Kingdom)

In the county of Suffolk, in Eastern England, the new waste treatment facility blends gently into the surrounding countryside. The Danpalon® facade is complemented by the aluminium aerofoil sun screen which contributes to the harmony of the whole building.

The construction of waste treatment facilities were often associated with unsightly buildings, noise pollution and other aspects of large treatment plants that would cause anxiety to local residents. But in the case of the Suffolk ERF, managed by Sita UK, the client and the project management team have succeeded in producing a facility that blends into the surrounding countryside. And that's not all – the plant provides economic and environmental benefits for the region, recycling and recovering over 269,000 tonnes of waste each year. The facility also generates electricity for 30,000 homes.

"The creation of this development has significantly reduced the use of landfill and reduced the costs to the taxpayer inherent in this method of disposal of household waste," says Stephen Davis, Buildings and Architecture Design Manager at Tata Steel Projects. The complex is divided into two separate entities; the central building, which contains the treatment plant and the incinerator (60 metres long by 30 metres wide), and the front

section of the building, which houses an education centre designed to raise awareness of the benefits of recycling. "The complex is right next to the Gipping valley natural park. This meant we had to create a balanced building, an industrial site that would respect the surrounding environment without creating significant impact," explains Stephen. In addition the project achieved a BREEAM excellent rating.

The Grimshaw firm of architects who were commissioned to design the concept, worked to create an aesthetic for the central building that would blend into the English sky and reflect the changing patterns of the clouds. To achieve this, the architects conceived a mixed solution consisting of a primary facade of Ice Danpalon® with a Softlite finish, creating an effect of transparency that recalls the colour of a cloudless sky. The facades were then entirely covered with horizontal aluminium aerofoils each set at a slightly different angle to the next in order to create a 'shimmer' whilst also shading from the sun.

The idea was to add depth to the building while injecting a dynamic aesthetic. "To accentuate the uniqueness of the facade, each of the sun-shades were positioned at incremental angles, creating an effect of volume and shine. These contrasts emerge as a v-shaped pattern to each elevation, harmonizing the building within the skyline and landscape" concludes Stephen. ■

## The PROJECT

### PROJECT CLIENT

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### PROJECT MANAGER

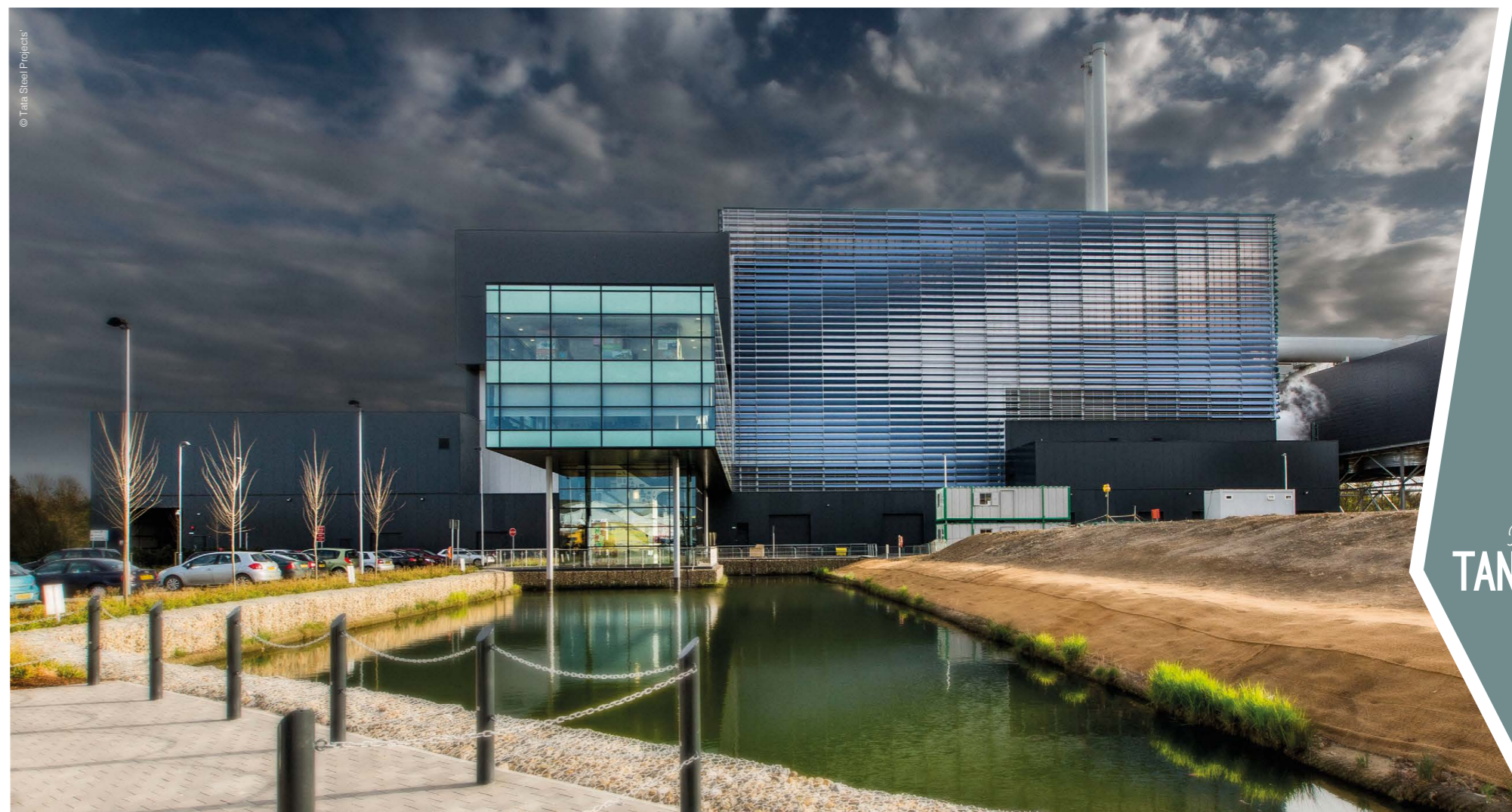
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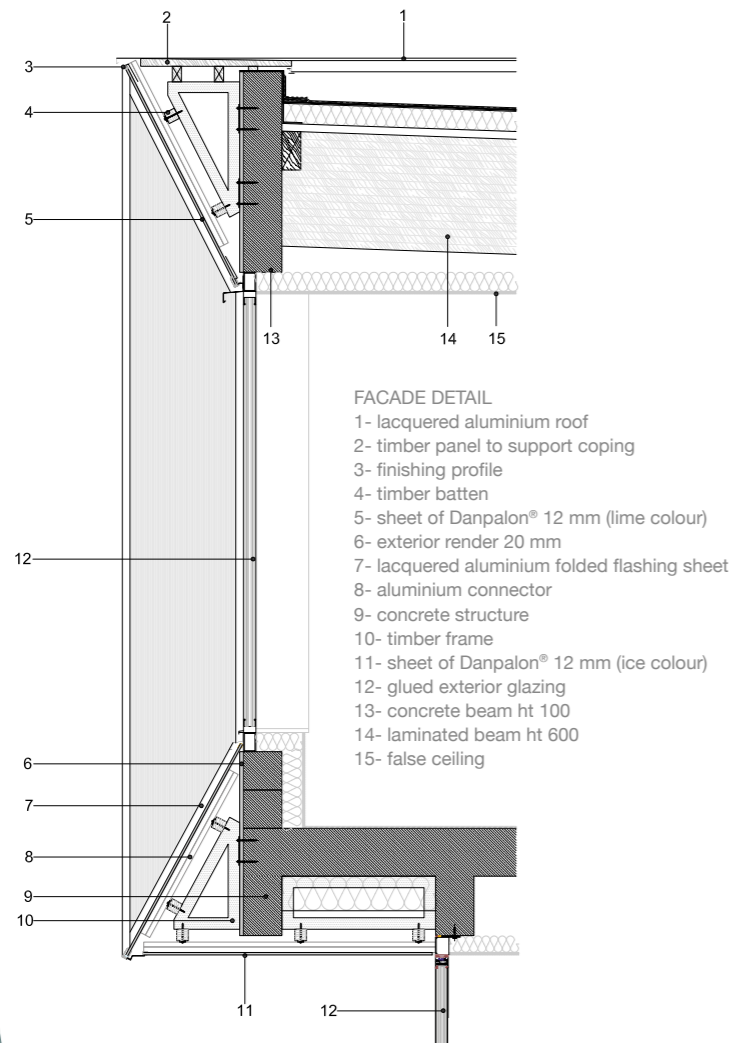
■ Facade, Danpalon® 16, 1,040 mm, Ice Softlite, 13,896 m²

In  
TANDEM

In  
TANDEM

# FLAWLESS VISIBILITY

Pharmacy and doctors' surgery ■ Gruchet-le-Valasse (France)



## LUMINOUS CROSS ON THE FACADE

It took several attempts to successfully integrate this luminous sign into the air gap behind one of the side facades. The challenge? Finding the right distance for the LEDs from the Danpalon® ice rainscreen panels so that the shape of the cross would appear clearly.

This generously sized building (600 m<sup>2</sup>), which includes a pharmacy and four doctors' consulting rooms, is not the type of enterprise you expect to find in a retail park. Architect Pascal Desplanques of the firm Bettinger-Desplanques Architectes had to do everything he could to optimise its visibility.

## The PROJECT

**PROJECT CLIENT**  
SCI PAMEB ■ Alvimare

**PROJECT MANAGER**  
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**PROJECT COST**  
■ 505,000 € EXCL VAT (excluding landscaping)

**PROJECT AREA**  
■ 478 m<sup>2</sup> (doctor's surgery: 186 m<sup>2</sup>, pharmacy: 292 m<sup>2</sup>)

### How did you go about making the building stand out visually in such a diverse, disjointed environment?

The pharmacy, which also includes four medical consulting rooms, is located in the huge retail park of Gruchet-le-Valasse. It is a varied, dense environment characterised by a succession of shop signs! The building thus needed to be perfectly legible and visible for drivers to see it. The choice of a two-storey building quickly became obvious. Then, in order to make the main facade stand out from its surroundings, we designed a composition of inclined surfaces based on a timber frame covered with lime Danpalon® microcellular polycarbonate rainscreen, recalling the colours in the pharmacy's visual identity. This gave us a light appearance and an interest-

ing transparent effect. The surfaces on the ground floor are punctuated with vertical openwork wood cladding.

### Composing a facade with oblique planes is never easy...

That's right; the interior angles are quite complex to achieve. What's more, the facade required us to create custom fixing pieces. However, despite the technical difficulty, we don't regret our decision at all – we would never have got the same effect and the same depth of colour with painted sheet metal cladding.

### What is upstairs?

This space houses stockrooms and staffrooms, but above all it allows us to create extra height and bring natural light into the sales area, because

there is no ceiling between the ground floor and the first floor!

### For the side facades, you chose Danpalon® ice rainscreen cladding. Why?

The transparency of the material adds softness and depth to the building, especially as there is an air gap of nearly 15 cm between the primary concrete structure and the Danpalon® ice panels. In this gap, on one of the facades, we installed an illuminated cross using green LEDs. At night, the pharmacy sign appears through the cladding! ■

In TANDEM



In TANDEM

# INVISIBLE CHAPEL

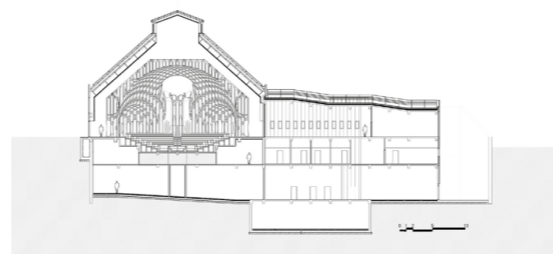
Namseoul Church Missionary Center ■ South Korea

Inside this contemporary building is an incredible chapel with its choir decorated with suspended trunks of red cedar. Thanks to its pyramid-shaped Danpalon® roof, the space is saturated in gentle light, dubbed “the Light of Life”.

**T**hirty kilometres from Seoul (South Korea), in a verdant mountain region, lies a stunning religious edifice (housing a chapel, about a hundred bedrooms dedicated to spiritual retreat and a restaurant). From outside, nothing suggests the sacred nature of the space within. On the contrary, you could easily mistake it for an office building combining the transparencies of glass and Danpalon®. “These materials optimise the flow of light and blend the building subtly into the mountains, as the Danpalon® crystal solution of the primary facade reflects the landscape,” explains the architect, Hyung-Chul Shin. But here the Danpalon® also fulfils another function. Once inside the building, visitors discover a chapel known as “the Light of Life” beneath the pyramid-shaped Danpalon® ice roof. Above the choir hangs an incredible array of 834 solid cedar trunks, suspended in the air by metal ropes with three spaces left clear to allow the light to enter. Here the Danpalon® diffuses a gentle, muted light, creating an atmosphere suited to meditation and contemplation. ■



■ Facade and roofing, Danpalon® 12, 900 mm, clear, Danpalon® 10, 600 mm, ice, 3,500 m²

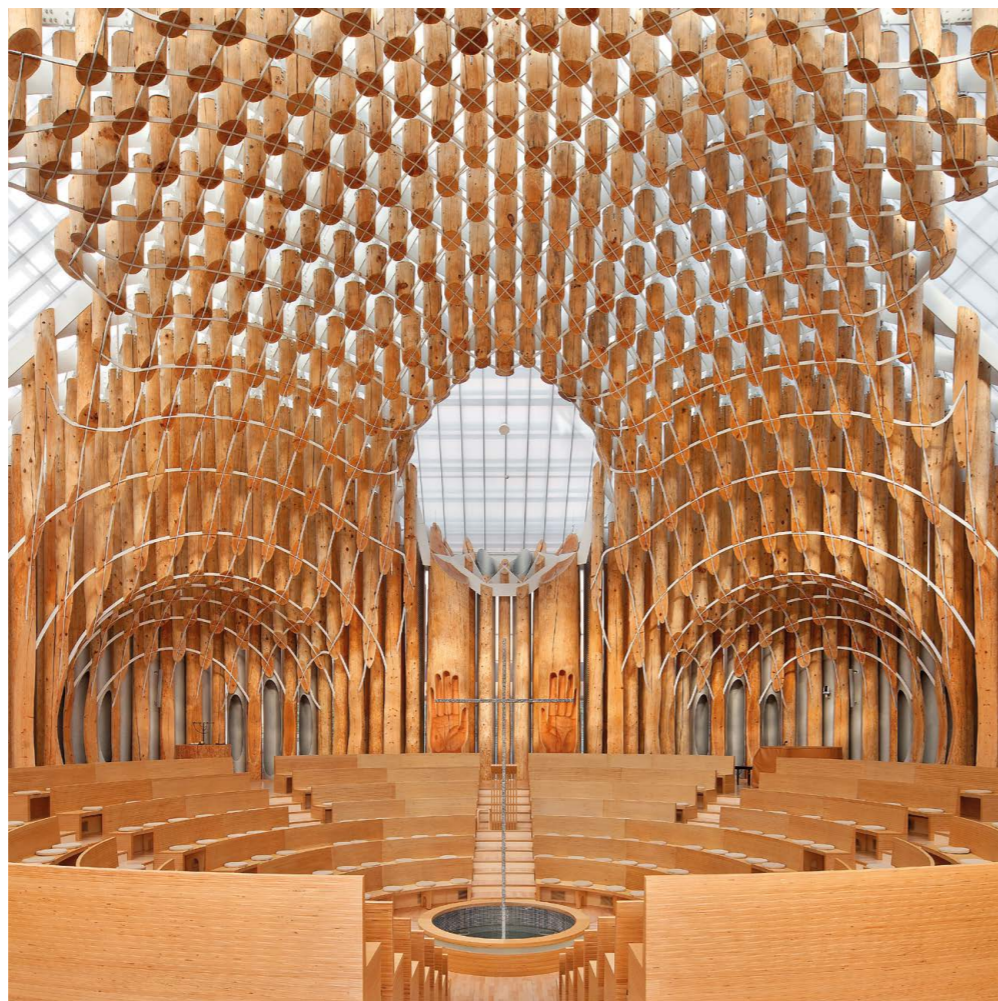


## The PROJECT

**PROJECT CLIENT**  
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In TANDEM

# NEWS



STOCKHOLM  
 ■ Facade, Danpalon® 16,  
 1,040 mm, orange, 62 m²



TUMBA  
 ■ Facade, Danpalon® 16,  
 1,040 mm, opal, 94 m²

## CURVED LINES

Max restaurants ■ Tumba and Stockholm (Sweden)

The architecture of the new Max restaurants incorporates an external band of curved polycarbonate, emphasising the rounded shape of the dining room and helping to protect the facade against the sun.

**M**ax? An institution in Sweden was founded in 1968 in the north of the country. The fast food chain initially concentrated on growing locally before extending its catchment area to the whole of Sweden in the mid-90s. Its success has even forced McDonald's out of several Swedish towns. Today the group has about a hundred restaurants in its home country and has also spread abroad to Norway, Denmark and the United Arab Emirates (seven restaurants).

visual signal, both day and night, in the urban landscapes where these restaurants are usually located,” explains the architect, who chose the product for its lightness and flexibility. The translucency of Danpalon® enlivens the building's facade with the sun's reflections throughout the day. ■

### Architectural unity

Although the group's first restaurants were all designed according to the same architectural model, with a sharply sloping roof, the new premises have opted for a more contemporary architectural style based on curves and natural light. This has been the focus of architect Pontus Lomar, of the Lomar Arkitekter firm, in his designs for twenty new restaurants. “These rounded buildings generate a positive architecture, and the Danpalon® band (orange, opal or green) surrounding the facade contributes to this. It is a strong

## The PROJECT

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 ■ www.maxburgers.com



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Thankfully, the days when athletes had to contend with stifling heat in summer and freezing draughts in winter are long gone. Today's buildings rely on high-performance thermal solutions to achieve real comfort and provide diffused natural light as well as interesting and beautiful aesthetics.

## AN ELEGANT SASH

Les Galets multi-purpose hall ■ Chalampé (France)

The extension and updating of the multi-purpose hall in Chalampé (Haut-Rhin – East of France) was an opportunity to create a building with multiple, colourful reflections.

“Our task was to upgrade the Chalampé multi-purpose hall to the latest standards, and to add new spaces to the building,” explains architect Serge Gaussin. The firm SGA Architectes took advantage of these requirements to create a new structure that stands out from its surroundings. “With its cast concrete shell, the architecture of the former building was seen by residents as commonplace and old-fashioned. To overcome this, we decided to combine an extension with a coloured canopy running like a sash along the structure,” adds Serge Gaussin.

The result is a refreshing building brought to life by a five-colour Danpalon® rainscreen cladding strip. While orange is the most prominent colour within the facade, the architect also added green, red, purple and yellow Danpalon®.

“At night, the building takes on a whole new dimension thanks to the light emanating from inside. To accentuate the nocturnal effect, we integrated lighting into the canopy ceiling,” adds the architect. The project manager was also keen to introduce additional windows within the facade and we took advantage of the fact that the Danpalon® is so easily cut on site to allow us to integrate the glazing. ■

### AN ORIGINAL SIGNATURE

To emphasise the new name of the multi-purpose hall, “Les Galets”, an image of pebbles was digitally printed on 78 m<sup>2</sup> of Clear Danpalon® cladding to great effect and at night the lighting completes a great aesthetic.



WE DECIDED TO COMBINE AN EXTENSION WITH A COLOURED CANOPY RUNNING LIKE A SASH ALONG THE STRUCTURE

■ Ventilated Rainscreen; Danpalon® BRV 12, 900 mm, orange, green, red, purple, yellow, clear, with digital print, 500 m<sup>2</sup>

### The PROJECT

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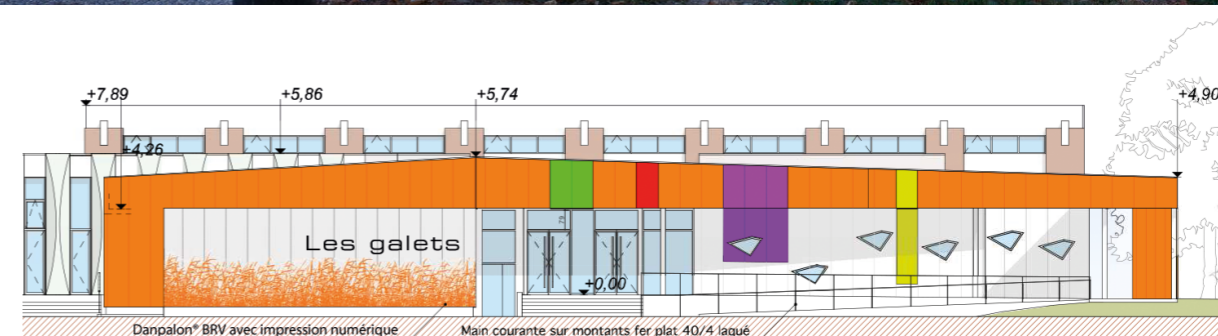
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# TRI-COLOURED SWIMMING POOL

Parc des Vauroux swimming pool  
Mainvilliers (France)

## INTERVIEW JEAN-LUC CALLIGARO ATELIER PO&PO

### What was the background to the renovation of this swimming pool?

The pool is located in the Parc des Vauroux in Mainvilliers (Sarthe). The original building, dating back to the 1970s, was closed in 2005. At the time, Chartres city council, which was responsible for operating the facility, did not intend to reopen it. But they were not counting on the commitment of the two mayors of Mainvilliers and Lucé, who undertook a legal battle to obtain the funds needed to renovate and reopen the building.

### Why was it closed?

Because of its dilapidation. Several concrete pillars were located outside without being insulated, which created thermal bridges and water run-off that damaged the metal structure and tiebars and led to parts of the suspended ceiling collapsing. The original facade had very poor thermal performance.

### Why did you retain the concept of a polycarbonate facade, which had already been used for the previous pool?

The old pool had an incredible wealth of affection. We retained the spirit of the existing building while giving it a new image by using a contemporary material with better durability and thermal performance. The Danpalon® ice diffuses a soft light throughout the pool area, and as the building is bordered with trees the sun projects a play of shadows into the interior, adding interest to the surroundings of the pool.

### Where did the idea come from for the coloured cladding standing out from the facade?

It is not just an exterior cladding, as the same colours, purple, yellow and lime green, are also found inside. We developed the idea of coloured boxes with the Everlite Concept engineering team to add a note of originality!

■ Facade, Danpalon® 22, 600 and 900 mm, ice ■ Coloured boxes, Danpalon® 16, 600 mm, yellow, purple, lime, 954 m²

### The PROJECT

#### PROJECT CLIENT

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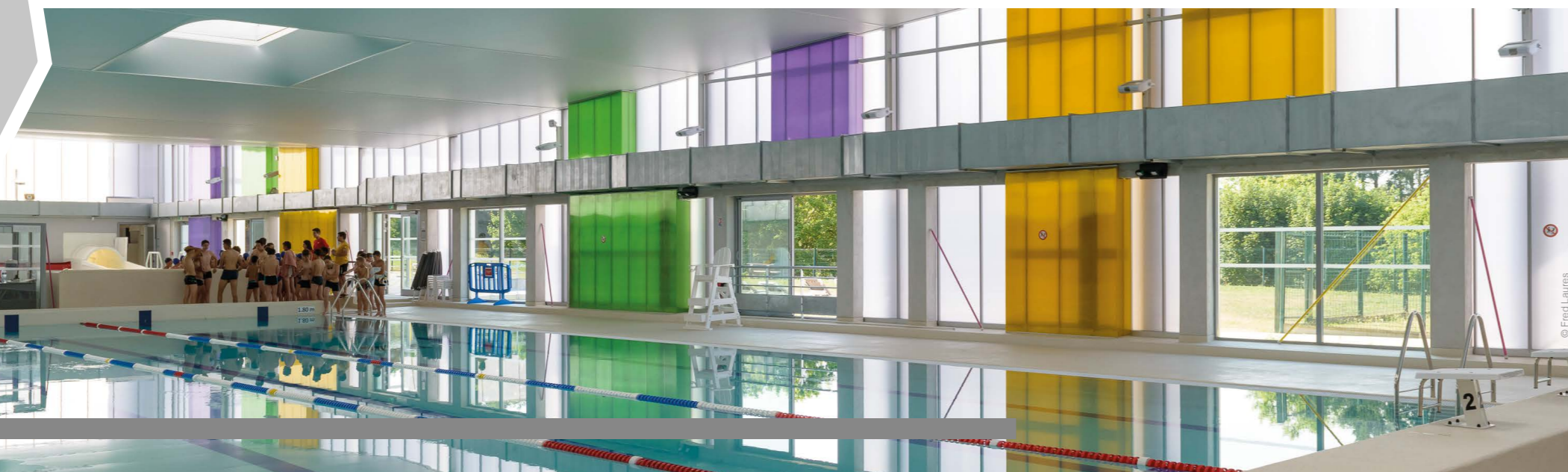
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### A TECHNICAL FOCUS INTEGRATED COLOURED BOXES ...WITHOUT PIERCING THE FACADE

It may appear as though these colourful purple, yellow and lime green Danpalon® boxes pass directly through the facade. However, they don't. Although this was the architect's initial idea, the project was modified in order to retain the building's air and water tightness. In order to create the illusion, Everlite Concept's engineering team suggested that Atelier Po&Po install a continuous Danpalon® ice facade,

and that 'half-boxes' of coloured Danpalon® could then be added, to both inside and outside of the facade. The project required custom detailing and modification to the Danpalon® fixing components which were specially adapted while the Danpalon panels themselves were routed in the factory to make them easier to fold on site. The installers then fixed these 'half-boxes' to the main structure as simple decorative elements. ▶▶



© Fred Laurens

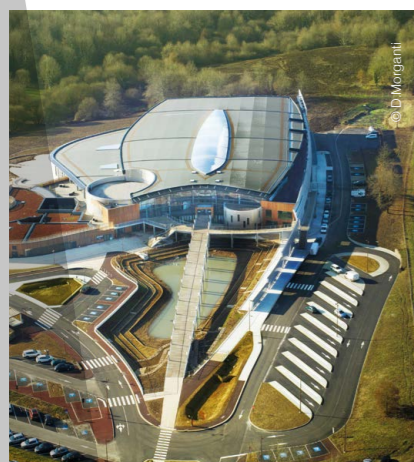
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# OLYMPIC GLAZING

Aquapolis aquatic centre ■ Limoges (France)

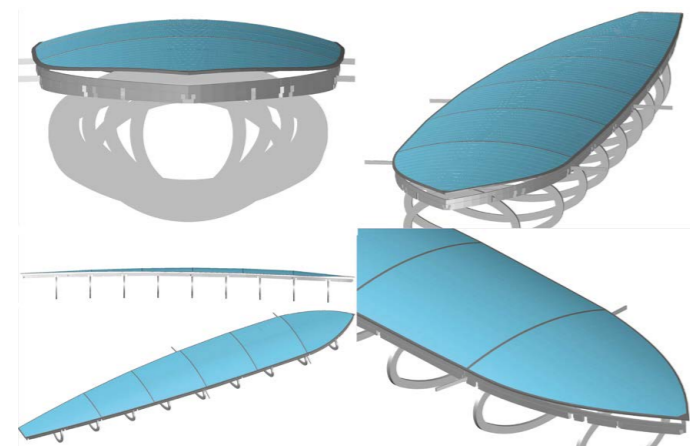
In early 2015, Limoges opened its brand new aquatic centre, baptised Aquapolis, which welcomes both professional athletes and the public to use its 50-metre Olympic pool beneath a majestic curving glazed roof.



Alongside the A20 motorway on a one-kilometre plot bordered by woodland, the Limoges Aquapolis is an imposing addition to the landscape. To explore it, the architect leading the project, Jean-Alain Kiefer of the firm Octant Architecture (Rouen), initially thought about both approaches to the building, "either on foot, along an exterior walkway that immerses you in the aquatic world, or from the motorway, where the metal carapace of the building is revealed as you pass".

## Natural lighting

Inside, visitors can admire the combination of timber and metal structure at their leisure, pierced in the centre by a curved double Danpalon® window 70 metres long by 12 metres wide. Hugging the form of the roof, the opening diffuses a beautiful natural light across the Olympic pool. "Beneath the glazed structure, large galvanised steel rings evoke the shape of the Olympic rings," adds the architect. The ambition exuded by the building is matched by its purpose and is set to host high-level competitions. Last March Aquapolis welcomed the French national swimming championships. A powerful symbol for the region. ▶▶



■ Roofing double skin, Danpalon® 16, 900 mm, clear Softlite, Danpalon® 22, 900 mm, clear

■ Facade, Danpalon® 16, 600 mm, ice, Danpalon® 10, 600 mm, clear, 1,706 m²

## PROJECT CLIENT

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■ www.smac-sa.com



THIS DOUBLE SKIN PROVIDES THERMAL INSULATION WITH A U-VALUE OF 0.84 W/M²K AND AVOIDS ANY SERIOUS RISK OF CONDENSATION.

## 3 Questions for SMAC LIMOGES

ERIC COMBES, DESIGN/METHODS  
& ARNAUD PEYNOCHE, EXECUTION OF WORKS

### Why did you choose double Danpalon glazing?

Initially, we planned to use nanogel filled polycarbonate sheets. Finally, by opting for a double-skin Danpalon® structure we limited the risk of leaks, because there were fewer drainage profiles to be installed.

### What are the structure's characteristics?

It consists of external panels of clear 22 mm thick Danpalon®, (this thickness ensures excellent load bearing capability and flatness for rainwater

drainage), with an inverted anti-UV treatment, and an internal layer of Danpalon® clear 16 mm thick with a Softlite finish. This double skin provides thermal insulation with a U-value of 0.84 W/m²K and avoids any serious risk of condensation.

### Did you have any particular problems installing this glazed structure at such a height? (Editor's note: nearly 20 metres)?

We had to produce a lifting beam to hoist the panels and fix them to the metal framework without damaging

them (some are over 10 metres long). During installation, the structural crane was still in place, passing through the area where the glazing was supposed to go! This did not prevent us from making progress, as we first installed the Danpalon® to the two ends, completing the facade with the central panels. However, as the facade is curved in both directions, we had a little more difficulty fitting the external panels, but in the end it all went very well. ■

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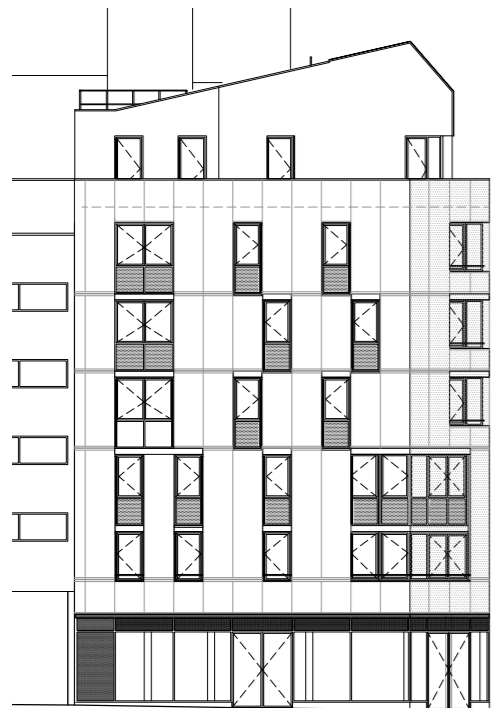


# REINTERPRETING THE CODES OF A TRADITIONAL PARIS BUILDING

Housing in Rue Petit and Rue Hautpoul ■ Paris (France)

This was the challenge for Michel Ferranet Architectes, and the architect responded by using Danpalon® opal rainscreen cladding.

“ RATHER THAN A TRADITIONAL RENDER, WE OPTED FOR A MORE CONTEMPORARY FACADE CLADDING, DANPALON® OPAL.



## The PROJECT

### PROJECT CLIENT

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■ Ventilated Rainscreen, Danpalon® BRV 16, 1,040 mm, opal, 280 m<sup>2</sup>

## INTERVIEW ■ DIRECTOR OF MICHEL FERRANET ARCHITECTES

### Michel Ferranet

#### Is it difficult to build in a very urban setting?

You have to take the overall volumes into account. This corner building in the 19<sup>th</sup> arrondissement of Paris consists of nine affordable apartments, (from one to five rooms) and covers an area of 872 m<sup>2</sup>. To avoid overpowering the existing buildings, we chose to separate it from the adjacent block by installing an outdoor staircase. Our Danpalon® rainscreen cladding only rises to the second floor at this point, creating a breathing space.

#### Was the choice of a light-coloured cladding part of this integration?

We wanted to respect the traditional codes of Paris buildings while reinterpreting them. We thus designed a building in a light colour, fitting with the Paris context, with tall windows and a zinc roof. But rather than a traditional render, we opted for a more contemporary facade cladding, Danpalon® opal rainscreen, which offers a surprising degree of depth.

#### Does rendering not allow this kind of effect?

A mineral cladding does not bring the

same degree of life to a facade. The milky white colour of the Danpalon® opal rainscreen cladding plays with the light and the way it catches the surface. In addition, the street facades face north-east, so we couldn't count on the sun to enliven the building.

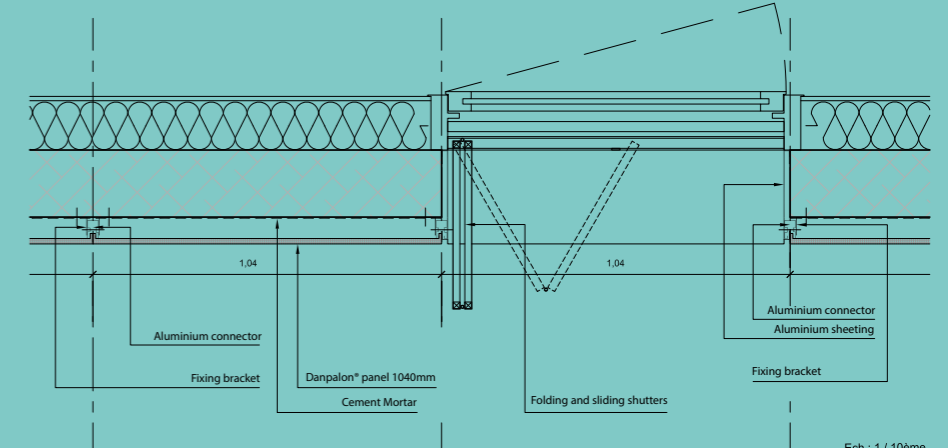
#### On some projects, the facade cladding extends the full height of the building, but not here. Why not?

We chose a 1,040 mm framework, which corresponds to the width of the windows. We then cut the cladding panels to fit the window aprons so that we could include lacquered aluminium

cladding, evoking the cornices of old Parisian buildings.

#### Did you encounter any resistance from the project client?

We had to reassure the client about the material's durability. The self-cleaning property of Danpalon® rainscreen cladding and the ease of replacing a panel in the event of damage finally convinced him. From our point of view, it was an interesting experience to install it in an urban environment which is subject to a variety of exposed and differing environments. ■



Ech : 1 / 10ème

# PROTECTIVE BARRIER

Isaac Newton Academy ■ Ilford (United Kingdom)

To improve the educational environment of the Isaac Newton Academy primary school in Ilford, the architect has insulated part of the brick building by covering it with a Danpalon® rainscreen facade. The facade extends upwards from the roof to create an outdoor space protected in the same way. Quite a surprise!



■ Ventilated Rainscreen, Danpalon® BRV 16, 900 mm, opal and clear Softlite, 641 m²

The architecture firm Pollard Thomas Edwards has conceived an astonishing project for the Isaac Newton Academy in Ilford, in London's eastern suburbs. In building this complex, consisting of a primary school, a secondary school and a sixth form, architect Simon Whitley had to fit the primary school

into an urban environment that was ill-suited to its young population, with noisy streets and a working fire station nearby. To overcome the problematic location, Simon decided to insulate the street-facing building as much as possible while conserving some of its overall architectural unity, which included building the ground floor

from the same red brick as the facade of the existing secondary school.

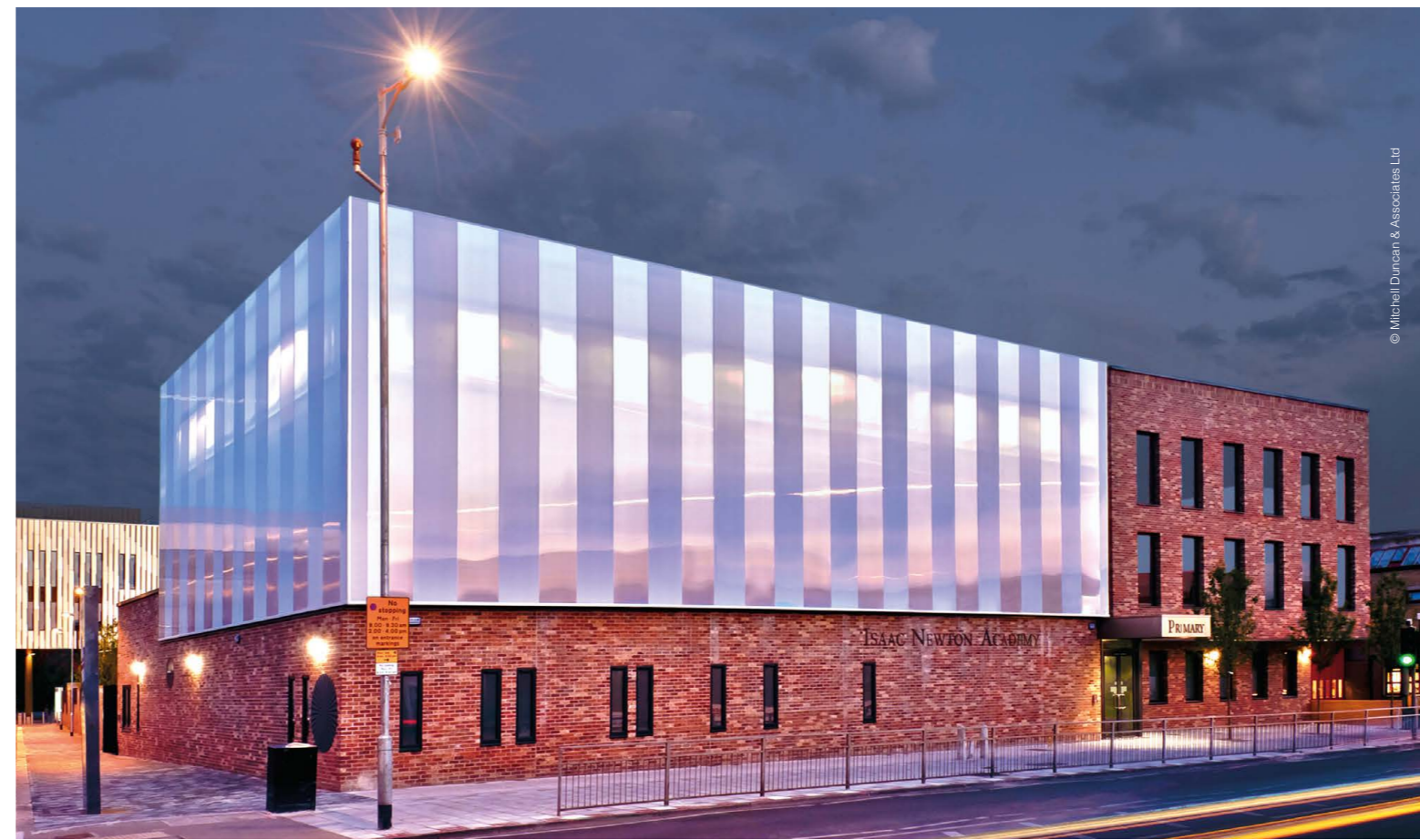
## Protective cocoon

To achieve this, the architect designed a two-storey building with a primary brick structure, to which he attached a Danpalon® opal and clear rainscreen cladding with a Softlite finish about sixty

centimetres away from the building. The first floor houses common areas, such as the canteen, but the surprising aspect of the project lies in the architect's desire to give the Danpalon® rainscreen cladding a second function as the walls of a sports pitch located... on the roof! The Danpalon® rainscreen facades thus extend upwards for the

equivalent of an additional storey, enclosing the roof and creating outdoor space. While perfectly sheltered from the noise and the wind, the children are still aware of movement outside and can make the most of the light passing through the translucent cladding. When night falls, the Danpalon® rainscreen facades act as an illuminat-

ed beacon, reflecting the lights of the street and the traffic. Far from contenting himself with the austerity inspired by a brick facade, the architect has successfully modernised and brought to life the image of the Isaac Newton Academy and made its pupils' lives more comfortable. ■



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100 %  
LEDS

## LET THERE BE LIGHT!

WE-EF ■ Satolas-et-Bonce (France)

Sometimes a facade cladding might not be an end in itself, but rather a means of expressing light. This trend can be seen among architects who are keen to create buildings that have a visual impact both during the day and at night. Buildings that illuminate, diffuse and reflect the light thanks to increasingly ingenious systems of back-lighting or LEDs able to create infinitely flexible curtains of light.

### 3 Questions for AUDREY PALLIN

ARCHITECT AT SECOBAT

**Is it a head office or a factory? This building looks as if it could be either...**

Both! The building is both the new French head office of the German industrial group WE-EF, which manufactures urban lighting systems, and also its production site. The client wanted the building to reflect the group's corporate culture whilst demonstrating its products.

**How did you convert this brief into reality?**

We designed a robust, harmonious building using concrete. This style can also be found in the interior, where the structure remains visible, mirroring the ethos of the company's products: very reliable with no "frills". We then designed a lighting scenario, choosing a polycarbonate solution, Danpalon® ice, which is a canvass for the lighting and provides a lighter touch to the northern facade with three large openings five metres high.

**So the Danpalon® is not so much an end in itself as a means of diffusing light?**

Yes. We inserted LED light elements in these openings (externally, at the base of the facade), which produces a bluish light. The multicells and transparency of the Danpalon® catch the light particularly well and spread it uniformly across the whole height of the facade. We used single-height panels that are wide enough (900 mm) to limit the number of joints required.

■ West Facade



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**DANPATHERM K7 WITH BUILT-IN LEDES**

Based at the same site, the company Flux Lighting specialises in producing fibre-optic lighting and exterior accent lighting. To show off its products, the project client decided to design a wall of colour-changing LEDs. The architecture firm installed a 75 m<sup>2</sup> facade of Danpatherm K7 7.2 metres high. The LEDs were installed inbetween the two layers of the cassette whilst to enable easy access for maintenance, the structure of the Danpatherm K7 panels was modified at the top. Two finishes were used: clear Softlite for the interior and ice Softlite for the exterior.



- Facade, Danpatherm K7 ice Softlite (exterior), clear Softlite (intérieur) + LED's
- Roofing and Facade, Danpalon® 22, 900 mm, ice, 585 m<sup>2</sup>

UNIQUE!



■ Canopy, Danpalon® 16, 1,040 mm, blue, 1,260 m<sup>2</sup>

### ZENITH SPORTS CLUB

■ Seoul (Korea)

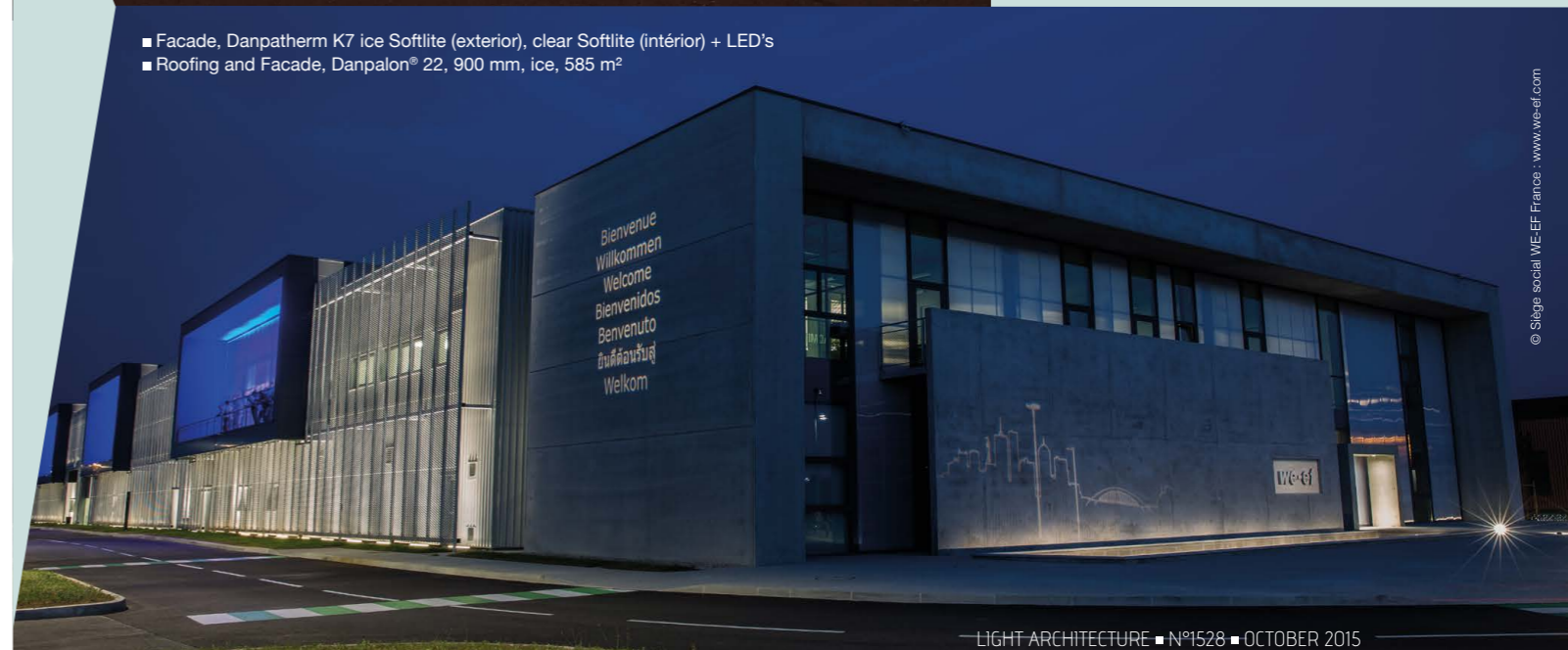
A Korean architectural practice has come up with an off-the-wall idea for a golf course: several practice levels rising into the sky like a flying saucer. The futuristic effect is accentuated by the use of brightly-coloured LEDs built into the Danpalon® roof structure.

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## A NEW NOCTURNAL LOOK

Melvin Sports Complex, Strabane District Council ■ Northern Ireland

Sacrifice function to form? Out of the question! The Melvin Sports Complex in Northern Ireland successfully combines both requirements.

Located in the town of Strabane in Northern Ireland, the Melvin Sports Complex needed urgent renovations. The operation was led by McGurk Chartered Architects, who wanted to restore the centre's modern image while creating an extension that would include four new sports courts. "More globally, the project aimed to optimise the quality of the town's sporting infrastructure and allow it to host local and regional competitions," explains Colm McGurk.

### User comfort

For the extension, the architects recommended using Danpalon® double-skin panels on the three

main facades, "This translucent solution bathes the main space in diffuse natural light. We also chose two different Danpalon® finishes, the exterior surface is clear with a Softlite finish, while the interior is a soft ice colour," explains the architect. As well as the

concept of user comfort, the firm also worked on the product's nocturnal presentation by incorporating several lighting effects into the extension's facades. At night, the building comes to life in a decidedly stylish and futuristic way! ■



© John O'Neill

■ Facade, Danpalon® double skin 16, 900 mm, clear Softlite and ice, 1,010 m<sup>2</sup>

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## SUCCESSFUL CLIMATIC ADAPTATION

Isokarhu shopping centre

■ Pori (Finland)

The project manager of this shopping centre located in Pori, Finland, used tough materials which are able to withstand the Nordic climate. His choice was Danpalon® rainscreen, ideally suited to this requirement.

One of the project client's specifications was the use of high-quality materials that can stand up to the country's climatic conditions, which include harsh winters with heavy snow but also warm summers, with temperatures approaching 30°C. To avoid overloading the building in snowy conditions, the architect had to limit as far as possible the weight of the facades covering the primary structure of the new Isokarhu shopping centre in Pori, Finland. "Danpalon® rainscreen, used for the signage of the shopping centre, is both light and solid and has a structure suited to the Finnish climate," explains Sergej von Bagh, an architect at the Finnish firm of BST-Arkitehdit Oy. When it came to choosing colours, the project manager took a pragmatic approach: the black Danpalon® rainscreen indicating the entrances to the centre corresponds to the visual identity of the client's Isokarhu shopping centres. "As for the blue cladding, that is just there to indicate the car park entrances," adds the architect, who also appreciated the translucent ambience of the Danpalon® rainscreen cladding. "The light passing through the panels creates very aesthetic material effects. This lightness contrasts with the solidity of the medium," continues von Bagh, who intends to use Danpalon® rainscreen again on another project very soon. ■

### The PROJECT

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■ Ventilated Rainscreen, Danpalon® BRV 12, 900 mm, black Softlite, sapphire blue black eclipse Softlite, 220 m<sup>2</sup>



# A MEMORIAL AND A SYMBOL

ACTe slavery memorial ■ Pointe-à-Pitre (Guadeloupe)



“Silver roots on a black box” is how the architect Fabien Doré of the firm Doré et Marton defines the architectural concept of M.ACTe. The Caribbean centre built in memory of the slave trade, opened on 10 May by the French president, François Hollande. Built on the site of a former sugar factory, the 7,124 m<sup>2</sup> structure lies by the sea in Pointe-à-Pitre. “In Guadeloupe, we have a tree, the ‘figuier maudit’ or cursed fig, which takes root in ancient ruins, history, culture

and heritage. We used this to define the colonial history of the island. The roots, which symbolise the future, are represented by aluminium cladding surrounding a black box, a concrete structure covered with a granite skin, a symbolic homage to the victims of the slave trade,” explains Fabien Doré.

## Emerald green

The architects were also tasked with incorporating a large terrace on the upper level for hosting receptions and cocktails. To decorate the terrace and

shelter guests against rain, the project manager decided to cover 254 m<sup>2</sup> of the area with an Empire green Danpalon® canopy. A restrained, elegant colour whose transparency contrasts with the nearby aluminium cladding. “In this space we insisted on simplicity and restraint, while designing a canopy with elegant curves,” explains Fabien Doré. The benefits of the product? “Apart from its aesthetic qualities, the Danpalon® was given a surface treatment designed to resist the Caribbean sunshine,” he adds. ■



■ Canopy, Danpalon® 16, 600 mm, empire

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# Technical TRENDS...



■ Facade, Danpatherm K7 12, 600 mm, clear with digital print, 600 m<sup>2</sup>

## DIGITAL PRINTING

Franco Brondani gymnasium ■ Houilles (France)

In order to bring the Danpatherm K7 facade to life, the architect of the Franco Brondani gymnasium in Houilles (West side of Paris) chose digital printing. An attractive, colourful way of creating iconic signage specific to sport.

## 3 Questions for

Charlotte Rich ■ PROJECT COORDINATOR AT EVERLITE CONCEPT

### What does the digital printing process offered by Everlite Concept involve?

The process involves reproducing an image by printing it on the flat surface of the Danpalon®. It can be applied to Danpatherm K7 and Danpalon® of all sizes and thicknesses. It adds an individual touch to the building, especially with the huge variety of possibilities in terms of the different effects we can achieve such as colour, gradient, light and transparency.

### Does the technique impose any particular constraints?

For this project, we needed to make the joints inbetween the Danpatherm K7 panels invisible. We printed the visuals so that they covered both the panels

and the connecting profiles (glazing beads). The result is particularly good because the digital image supplied by the client was very precise and of very high quality.

### What advice would you give architects interested in this technique?

When planning the project, you have to take into account the fact that the average printing time is four to six weeks (in addition to the time to produce the panels). What's more, the project manager must take care to provide a high quality source file, which usually requires some digital work before it is ready to be used in the printing process. It may well be advisable to use the expertise of a graphic designer for this kind of project in order to achieve the best results. ■

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Technical TRENDS



# INDUSTRIAL TRANSPARENCY

New SEW Usocome factory ■ Brumath (France)

The company SEW Usocome had two objectives for the construction of its new factory: creating a dynamic building and making maximum use of natural light.

The new premises of SEW Usocome, a manufacturer specializing in automotive and drive systems, is located at the new "Brumath district platform", a business park recently created by the Brumath group of municipal councils in Bas-Rhin. Delivered in October 2014, the factory covers an area of 33,000 m<sup>2</sup>.

"We had to respect the planning rules, which required a very linear build-

ing parallel to the main road, while taking the client's individual wishes into account. This involved designing a building that would symbolise movement and incorporate as much natural light as possible," explains Claude Wolfhugel of Studio Wolfhugel (Bas-Rhin). The architect and his team created this sense of movement partly by alternating curved and horizontal roofs and stratifying the roof of the reception area. Then, to ensure the best possible lighting in the factory, the architect chose to use Danpatherm K7 clear Softlite

for the building's upper facades. "The product provides soft, diffuse lighting in the storage, logistics and dispatch areas, but the project client also chose it for its thermal properties," adds the architect. To provide optimum solar protection, the curved roof overhangs the walls, acting as a natural sunshade. "For environmental reasons, we didn't want a specific nocturnal lighting design. But when night falls the interior lighting is filtered by the Danpatherm K7 cladding, creating a very interesting natural effect," he concludes. ■

■ Facade, Danpatherm K7 12 and 16, 900 mm, clear Softlite, 2,350 m<sup>2</sup>



## “ WHEN CURVES AND STRAIGHT LINES COME TOGETHER

"The project client selected top-of-the-range materials for the building that are not usually found in industrial projects. The use of Danpatherm K7 was a response to this desire to design a truly unique building. Deploying the product proved relatively complex due to the architect's decision to design a building with curved roofs. The Dapatherm K7

facades had to follow these movements, varying from 1 metre for the lowest areas to more than 2.8 metres for the highest. The layout had to be perfectly respected, as each panel had a precise size and location."

Interview with Cédric Fluck, site supervisor, Soprema (Bas-Rhin)

### The PROJECT

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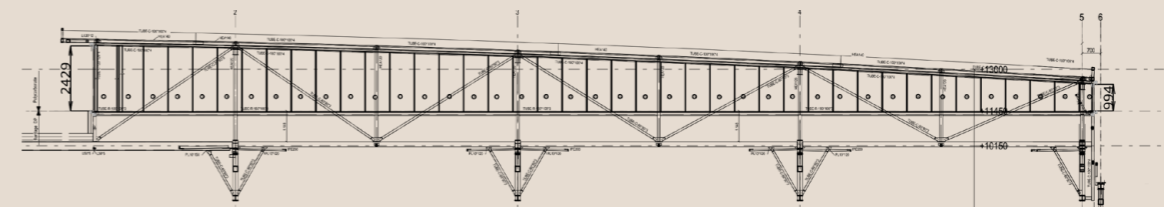
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