

# LIGHT ARCHI TECTURE

6-7

A giant pixel

8

Colours  
make the  
walls vibrate

10

All the sides of  
Danpalon

NUMBER  
0922

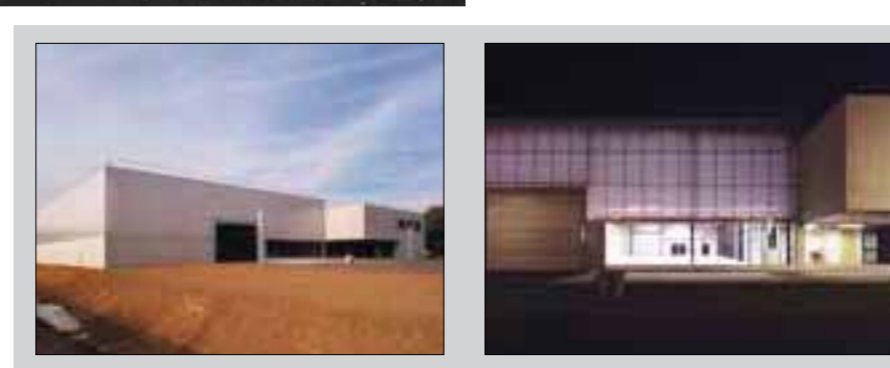
# ABSTRACTION FOR AN EMERGENCY CENTER

Full use of minimalist architecture, lit by Danpalon



Photo : Patrick Müller

■ Fitting contractor: Cibatanche, Bar-Sur-Aube (10) - Tel: 03 25 27 38 84 - 1125 m2 Danpalon Ice 16 Cladding 1040 sq. m.



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## Targets of the HQE initiative

- Acoustic
- Thermal
- Visual comfort, daylight
- Water processing
- Blending the building into the landscape

Located at the entrance of the town of Saint-Quentin, Yvelines, in an area of small houses and services, the Magny-les-Hameaux emergency and fire Centre is the operational and nerve centre of the new fire station. The client, the local authority, had clearly expressed its requirements: the project has to be HQE, and the building has to be no-frills with maximum daylight, while facilitating a sensible organisation of vehicles. In a word, to improve the speed of departure on emergency missions. "So we designed a timeless, pragmatic, strong, sober building, that goes right to the essentials, in line with its function", explains Philippe Challes, architect of the firm bearing his name. "However, we didn't want to make either a garage or a shed for lorries, but a building that takes part in the use, a place of life with materials that can grasp all the light of day". The operating programme (alert centre, PPE changing room) is the spinal column of the project, around which the other units are organised, sleeping quarters, living area, training room. So the Philippe Challes architectural firm played with abstractions. And to express the most minimalist architecture possible, cladding in Danpalon "Ice" was employed in a double skin. It provides its luminous qualities and thermal performance to optimise heating costs and limit electric lighting. On the

visual comfort side, the target is also achieved, which is of primary interest because firemen spend 60% of their time on stand-by. What's more, with filtered light, the engine drivers are not dazzled when they enter the Centre. There was, however, a small disappointment. "We didn't want metal corners for the quoins,

but rather a polycarbonate joint. That was not possible and it is a real pity", regrets the architect. "We lose in abstraction, which was the main theme of our project. Otherwise it met up to our expectations, it is very attractive, you see the frame in silhouette through the Danpalon, and there is a very interesting contrast between these two materials. And at night the building becomes a lantern, a true light signal, completely in line with its function."

## THE EDITORS

# Everlite, supplier of well-being

We are no longer in the previous period of architecture, lit by Danpalon out and out energy consumption... and of waste too. The 21st century needs to adopt a different stance, saving nature, benefiting from it as intelligently as possible so as to leave our children a world that is still full of resources. Everlite is clearly part of this initiative. Our 20 years of experience together with our R&D know-how help us find long-term, economic

solutions to live with natural light while being sheltered from the elements. Every day we think how to benefit from nature throughout the year, in well-being and comfort. To make savings from nature is to design cladding for buildings that insulate even better while remaining translucent and bright. By replacing glass with polycarbonate engineers can build the same area better and cheaper. Saving nature is also making smarter, more effective preparations in order to reduce the number of hours on site. It is also a question of planning flexible usage conditions for faster assembly. And in order to give nature its due, we never

cease to invent shapes and colours to make our walls, and hence our towns, happier and more harmonious. Seeing the many creations, real works of art, thought up by the architects in this magazine, we are proud to contribute to the beauty and preservation of our environment.

Alain Chambron  
Chairman

# CHEERFULLY COLOURED

A school with light, bright walls. In a word, playful!



■ Fitting contractor: Miroiterie Lapegue, Dax (40) - Tel: 05 58 74 28 74 - Double Danpalon wall on a vertical aluminium frame: Danpalon 16600 sq. m. Green, Blue, Orange, Crystal.

Jean Moulin School in Saint-Paul-les-Dax, the 4 stages of the programme followed one after the other but school life did not stop; it is clearly quite difficult to renovate a school that is operating, but it is all a question of organisation. The multi-year programme was very large, with on the one hand the rehabilitation and enlargement of the existing school, the creation of a new administrative and general services wing and the destruction of the old one, and on the other hand the destruction and reconstruction of the entire day school building in three levels as well as the PE area and the staff flats.

This school was built as a prefab in the 1960s and '70s; it had stood up well to the weather but needed renovations: rendered safe, adapted to computer-based teaching, compliance with acoustic and thermal standards, everything was started from scratch. The Landes Departmental Council wanted to turn this renovation into an emblem of its policy of school renovations. It also wanted it to get involved in the town and to be better integrated into the surrounding area of small homes. So the architectural choice was focused on discrete volumes broken up along the



side of the road. The contrast of materials, painted masonry and translucent, coloured Danpalon was selected. To get such materials accepted in a school, you of course needed to comply with severe safety issues (for example, not being in direct contact with the pupils for fear of shocks), and also solving several technical difficulties such as its use in large heights.

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# A LIGHT TRANSLUCENT GEM

The Boris Vian sports centre in Saint-Priest (69) was delivered in November 2008 and has been a great success. The target has been achieved: the town, which is the client, the pupils and users from various sporting associations are very satisfied. Its appearance, highly original for a public building, gives it a strong personality, an identity. There were, however, no lack of limitations in this project that included a sports hall, gymnasium, changing rooms and annexes. Firstly a technical constraint: the lay of the land was very uneven. On the other hand, a public facility had to suit school pupils and their teachers as well as sporting associations, especially for archery. Profiting from the lie of the land, the building emerges from the ground. Its mineral base in sculpted and coloured concrete anchors it in the ground. The roof of the changing rooms in the annexes extends the natural terrain. The sports hall emerges from this base. "Like a diamond, its volume contrasts totally with its base," says Magali Blachier, the architect. It looks light, floating, translucent, encircled by metallic bands. It has become a symbol for the town. At night it is lit up and shines like a lighthouse." The treatment of the four sides of the building has been the same. Thus, depending upon the directions, the colours of Danpalon offer their full diversity, and by using the Softlite process on the west side they avoid dazzling.

For the architect, Magali Blachier, "One has to be very pragmatic to carry out a sporting project. The light, acoustic and thermal atmosphere must meet the special requirements of sports activities. For example, for visual comfort it is essential to avoid dazzle on the playing area; this is achieved by using Danpalon's Softlite treatment: energy efficiency, the idea of overall costs and water management. To this of course



■ Fitting contractor: MARTIN G, Pont Evêque (38) - Tel: 04 74 16 17 77 - Danpalon Cladding 16 600 sq. m. Crystal Softlite and 1040 Crystal, 600 and 1040 Green Softlite and Orange.

were added the obvious requirements of visual and acoustic comfort, and ease of maintenance. The economical facility can be adapted to users' requirements with heating control, automatic control of the artificial light together with natural light, and presence detection for the lighting. The green roof enhances the good insulation of the changing rooms and the annexes. And in summer a geothermic, heat exchanger system cools the air blown into the changing rooms.



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# A GIANT PIXEL

Translucent, multicoloured screens of Danpalon that strongly mark the landscape.

For the city of Nantes, saving an emblematic football pitch built in 1937 was the key to this urban rehabilitation project. It included restoring one of the stands at the football ground, creating offices for two groups of researchers, a tourist residential block and a carpark. "Without erasing the place's sporting memories," says Louis Paillard of the FGP Architects firm. "Here the architectural project is all about urbanism. It recycles the usage and the area's townscape while giving it back real urban power". The initial project as conceived by the client, the city of Nantes, was to open up the sports stadium to the Loire. The FGP firm suggested a much more audacious approach, to place this imposing building along the river. A slender boat with the wind in its sails or a castle surrounded by a moat? Everyone can let their imagination make the choice. This large, cut-up silhouette, structured with varying heights ends in a 50 m high tower. The apartments thus have a fantastic view. The north and south sides both use Danpalon. But the different highlighting depends on their usage. The north side is smooth, with few openings for thermal performance. Its sealed wall panels include insulation between the polycarbonate and the concrete. On the south side, where the offices are, fins made of Danpalon, set off from the windows, protect the researchers from direct sunshine without blocking their view. "This is one of the design principles of protective buildings, to protect yourself against the sun's rays, before they strike the windows," insists the architect. We did not want to install an array of technological processes to achieve sustainable development.

That's nonsense. It is an attitude from the construction of the building. The protective envelope must work on the outside like a filter for hot and cold." The building's structure with its varying heights, its fault lines and its highly original tower, is all there is. The rather strong colours stand out in the surroundings! "In contrast to the colouring of Nantes, which is more grey-blue, we opted for a lively colour range that acts as a large, urban sign. Danpalon allowed us to "stick" the brightly coloured modules edge to edge. The rendering is exactly what we imagined. What's more, its lightness and ease of handling made assembly much easier and quicker. As for the light, that's a true spectacle, it is iridescent and changes often. The researchers work round the clock, and there is always colour there, day and night". But it comes filtered and softly into the offices. The walls and floors are neutral coloured (several shades of grey) so that the coloured light coming in from outside illuminates the working area. This neutral colour approach has another rationale: the architects wanted the researchers coming from around the world for longer or shorter periods to be able to give the premises a bit of their own culture, their stamp, their own personality. The splashes of blue, orange and sea green, tempered with grey, remind you of a giant pixel. The architects have done the work of landscape artists. It is fairly rare to be able to play with such intensity of colour outdoors, and the project generated a lot of talk and stimulated many discussions... But the city of Nantes has been won over!



■ Fitting contractor: Cladding: Axima, Nantes (44) - Tel: 02 40 32 49 90 - Sunshades: Ateliers David, Guérande (44) - Tel: 02 40 24 90 34  
Northside: 4400m<sup>2</sup> Danpalon 16 cladding, MC 1040 Aluminium, Green, Grey, Orange, Opal, Red - Southside (Sunshade): 2500m<sup>2</sup> Danpalon Blue, Crystal, Grey, Orange, Green.

Photo : S. Chalmreau



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## THE PROTECTIVE BUILDING

The concept of the protective building is based on six major principles:

- Enhanced thermal insulation, high quality windows
- Doing away with thermal bridges
- Excellent airtightness
- Double ventilation flow with heat recovery
- Optimal but passive collection of solar energy and solar calories
- Limitation on energy consumption of household appliances

# COLOURS MAKE THE WALLS VIBRATE



■ Fitting contractor: S.E.C France, Limoges (87) - Tel: 05 55 38 11 66 - Cladding Danpalon 16 MC 600 Crystal.

Nantiat, 21 km from Limoges, is a little town with a large sports centre that bears an impressive name, DAC. Yes, DAC in honour of the great French basketball player who played for Limoges, Richard Dacoury. But the complex was starting to become dated and Nantiat wanted to give it a new, more contemporary look. It awarded the renovation of its sports centre to BVL Architects. "The project consisted of creating a gymnasium as an extension to the existing one, renovating the entrance to the complex and the annexed premises (offices, meeting room, changing rooms and storage areas)", explains architect Patrick Laroudie. "And to give it a welcoming feel, we opted for translucent materials: Danpalon Crystal for the gymnasium and coloured glass for the reception area". Special care was given to the comfort of the gymnasts, such as natural light, colours and the gentleness of the acoustics. The project's strong point was creating a special relationship between the user and his or her gym, by reconciling a lot of light with concepts of intimacy and privacy. "That was also a reason we chose Danpalon. It provides really nice, translucent light," adds the architect. "The light façade of crystal polycarbonate and glass

acts as a wall lamp for the main structure, and in the lower section "bears" wide, sliding panels in natural wood, which on demand can serve to conceal the gymnasium and make it private. "We married three elements, wood, colour and transparency. The transparency is used to highlight the wood and the colours," concludes Patrick Laroudie, "It provides the facades with vibrancy, through using cheerful colours, pink, green, yellow etc". Highlighting the place in the evening was key for members of the sports associations, who use it at the end of the day. With its beautiful, coloured lights, it sets the scene for sporting events, when it is seen at its best. And of course, the favourite basketball player of the people of Nantiat came to open the place!

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# LIGHT TRAPS!

Doubly original, the nautical centre is like a book open to the landscape, and thanks to Danpalon, colours the pools mauve and an orangey colour.

Taking into account the site's initial qualities and highlighting the landscape aspect both fed and supported our initial thinking on the design of the Nautical Centre," says Jean-Pierre Vidal, architect from the BVL Architecture firm. We suggested a balanced HQE project that combined the qualities of integration, comfort and management that was up to the expectations of the town council of La Chapelle-Saint-Luc". The identical setting of the old swimming pool was a constraint the architects chose to maintain and adapt, in order to benefit from certain initial, interesting qualities. Optimising the existing structure was also part of an environmental wish not to disturb the terrain any more. In contrast, the choice of materials was dictated by aesthetic concerns. This contributed to the combination of protective opaqueness (blue-tinged edging stone and concrete), transparency and light (sides employing windows and Danpalon). This choice not neutral: ease of maintenance and the durability of these materials helps implement the logic of the environmental initiative.

"The development of our project in the shape of an open "L" focused the installation of the pools," explains the architect. "We wanted to clearly distinguish two areas, one for sport and the other more for recreation, bringing together the multi-purpose paddling pool and pool". The recreation pool can be immediately seen from the entrance hall, and is the main attraction of the place. A water learning area has been created around which the water activities take place quite naturally. It benefits from a maximum vista of the surrounding landscape. Together with the paddling pool it represents a water focus in which the balance of space and the effect of light create a place of relaxation and well-being with the very finest environmental qualities. "The work on the light was one of our basics," concluded Jean-Pierre Vidal. On the southwest side, glass walls match the areas of water, with a higher section with a depth of vertical sunshades of orange and mauve Danpalon, which filter the light. The white tiles, the water of the pools and the concrete all highlight this range of playful, cheerful colours. The sunshades act like real light traps! »



■ Fitting contractor: Entreprise Gusiee, Marigny-Le-Châtel (10) - Tel: 03 25 21 54 57 - Wall and wall lining: Danpalon 16 MC 1040 Blue, Orange, and 600 Mauve.



# A FINE GLAZED LOOK

The Agar Grove nursery school in London, designed by the Architectural Products firm, was delivered in 2008. The use of 10 mm Danpalon Ice panels gave this kindergarten a marvellous, smooth appearance and a perfect roof. Haverstock Associates, designed the project with the purpose of achieving a glazed appearance, for which Danpalon Ice proved to be the ideal material. The outside walls include 25 identically sized windows in Danpalon panels. The detail and solderless finish of these windows by Architectural Products enhances the building's elegant character. Dan



■ Fitting contractor: Architectural Products - London - cladding and porch roof: Danpalon 8 and 10 MC 600 Ice.



Pal (UK) also supplied the material used for the roof, which goes round the lower level of the building to achieve an optimum blend of design and utility. The very clean roof was made of 8 mm Danpalon and aluminium joints to ensure it is completely watertight. As for the façade, 10 mm Danpalon Ice and aluminium joints were also used but installed in reverse, thereby improving this building's structure that was already in use.



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# EVERY SIDE OF DANPALON

How abstract art transformed a large, blind side wall

The renovation of the Aquitaine apartment building in Saint-Ouen l'Aumône is part of a very large urban project initiated a few years ago by the town council. This prototypical, residential project had as its major issue improving the separation between the private and the public, as well as bringing things up to standards and improving both acoustic and thermal performance. Located in the district of Chennevières, the block of flats is very visible, especially from the motorway. The town hall and OPIEVOY, the Public Housing body thus sought a powerful architectural choice to project the town's image. "For us it was not a matter of enclosing and closing up, but rather of providing another architectural definition of the relationship between what is built and the ground," recounts François Defrain, one of the architects from the DeSo Architects office. This building, which was built in the 1970s, uses a repetitive process and dated typology. Our objective was to provide a second urban dimension through renovating the façade". The main issue was certainly the northern façade (R+10), a large, poorly lit wall that was both monumental and imposing. The architects did not want to change what had been done previously, the combination of rough concrete and bricks. It was a matter of retaining quality consistency without adulterating it, without falsifying what already existed. So to retain the monumental nature of this blind side wall facing the new park, it was given roof lighting and a certain originality, with the architects turning to Danpalon. "By using this material we were able to reconcile the graphic aspect with improving thermal performance. What's more, we didn't want a uniform membrane, but something with a lot of detail and monochrome nuances to tie up with the brick," explained François Defrain. "That's why we went



■ Fitting contractor: ATV Design, Houilles (78) - Tel: 06 26 04 44 78. Cladding Danpalon 16 MC 600 and 1040 Crystal, Opal and Aluminium.

for three tones from the same family, which increases the contrasts even further." Designed as an abstract work of art, the façade is made up of countless triangular cutouts alternating with horizontal bands. (Congratulations to ATV Design, the fitting contractor!) These changes of direction and levels make the whole thing vibrate, optimise the glints of light and play with the reflections. "The project comes up to our expectations, it gives this block a strong personality, and the residents are reacting positively. Everyone has appropriated it, often for different reasons, either because they find in it landscape legitimacy or because of its playful, attractive side", concludes the architect.



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ARCHITECT PORTRAIT...

# LIPSKY-ROLLET AGENCY

“BE USEFUL TO SOCIETY”

A duo that complement each other, who have the same wish: to practice the profession at the highest level

“ Polycarbonate is a real alternative to glass products: it is transparent and bright, light, shock-resistant, performs well and is not very expensive,” explains Pascal Rollet. “We often build it into our projects; the material/area ratio is interesting: a little material for a big effect! Some take exception that it originates from oil. We are more nuanced... and more scientific. The figures speak for themselves! The carbon balance between PVC windows and polycarbonate ones cannot be challenged: 1,826 kg of CO<sub>2</sub> over 30 years for the former, 34 kg for the latter, which in addition is entirely recyclable. I like the scientific approach and it is one of the qualities I have found at Everlite. They have an R&D mindset, they do tests, listen to customer feedback, and improve their products”. Originally, Florence Lipsky never intended to go into architecture. With a literary degree course, which is what interested her, it was the social sciences, urbanism and history. It was at an international summer school where she met architects and students from around the world that she decided that was where she wanted. Pascal Rollet, saw himself as an airline pilot and so had had taken scientific studies. But to pay for his flying time he worked at carpenter. And there everything clicked. “When I went up on the roof to cut a batten, I immediately understood what I was doing and why I was doing it,” he recounts. “And having taken part in a public housing project in Mayotte, I was hooked once and



■ Lendit Studios at Saint-Denis Building site (delivery 2010) Facades of lodges and offices in Danpalon

for all!” Florence Lipsky, the fan of urbanism and history, and Pascal Rollet, the scientist and builder, shared the same feeling, to do something useful for society. This shared need is the basis for their firm, to practice their profession while thinking about its impact, its ethics and its social usefulness. And that they complement each other is their big strength. For them, being an architect is to organise the environment so that everyone can live together as harmoniously as possible, while creating living conditions that ensure sustainability and intelligence as a function of where people live, their culture and memories. “We have a big responsibility. We have to find a buildable solution to an apparently simple problem: a roof to protect and surround, separating the outside from the indoors, to create the essential conditions of comfort. This problem is renewed every time, depending on cultures, climate, human beings and history,” explains Pascal Rollet. Currently we are living the end of an absurd epoch of enormous energy costs. We must now invent other, more economical solutions, but without losing the interesting benefits of modernity. And we have to do it for everyone.” For the architects at the Lipsky-Rollet agency, sustainable development is not a technical question, but a question of global thought and policy positioning. It is made up of three items, sustainability, economic intelligence and accessible to all!



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