# WonderfulVinyl

ecvm
The European Council
of Vinyl Manufacturers

## PVC in architecture and design

ISSUE

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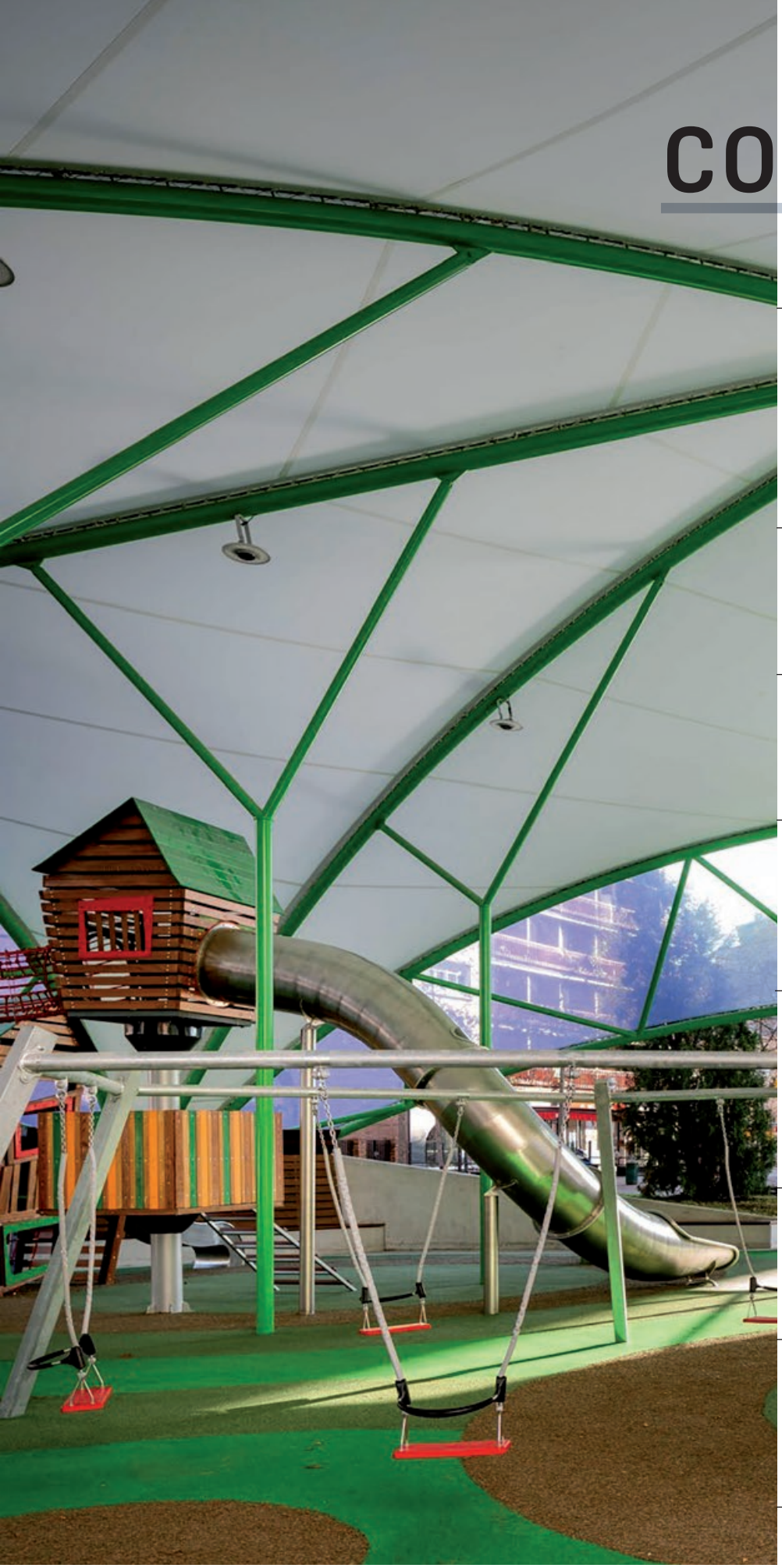
OCTOBER 2021



# CONTENT

# THE SUSTAINABILITY MARK FOR PVC PRODUCTS

## THE VINYLPLUS® PRODUCT LABEL

**Easily recognisable, the VinylPlus® Product Label not only helps companies to develop PVC products with higher sustainability performance, but is also a tool to guide public and private buyers to identify and select the most sustainable and high-performance PVC products for the building and construction sectors.**

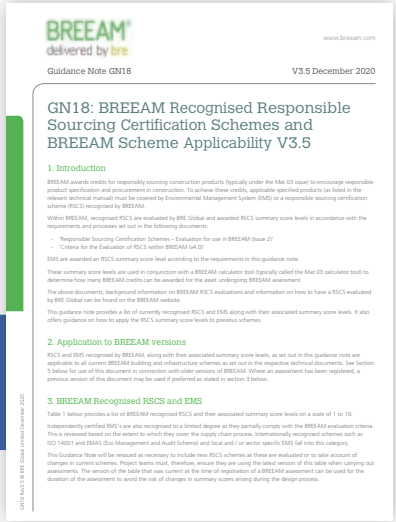
### FIRST SUSTAINABILITY SCHEME DEDICATED TO PLASTICS RECOGNISED IN BREEAM®

In 2021, the VinylPlus® Product Label became the very first certification scheme dedicated to plastic building and construction products to be recognised under the Responsible Sourcing Certification Scheme (RSCS) in both BREEAM® and Home Quality Mark® (HQM).

Owned by the Building Research Establishment (BRE), BREEAM is currently the world's most used sustainability assessment method for measuring the environmental, social and economic sustainability performance of buildings. It applies to planning projects, infrastructures, and buildings.

HQM is a certification scheme which helps UK house builders to demonstrate the quality and sustainability performance of their new homes.

Thanks to BRE's tough yet successful assessment of the VinylPlus® Product Label, users of PVC products that are certified with any versions of the VinylPlus scheme will be given enhanced sustainability recognition and facilitate the increasing market value of their BREEAM- and HQM-certified assets.


BREEAM delivered by bre

www.breeam.com

Guidance Note GN18 V3.5 December 2020

GN18: BREEAM Recognised Responsible Sourcing Certification Schemes and BREEAM Scheme Applicability V3.5

1. Introduction

BREEAM awards credits for responsibly sourcing construction products (typically under the Mat 03 issue) to encourage responsible product specification and procurement in construction. To achieve these credits, applicable specified products (as listed in the relevant technical manual) must be covered by Environmental Management System (EMS) or a responsible sourcing certification scheme (RSCS) recognised by BREEAM.

Within BREEAM, recognised RSCS are evaluated by BRE Global and awarded RSCS summary score levels in accordance with the requirements and processes set out in the following documents:

- "Responsible Sourcing Certification Schemes – Evaluation for use in BREEAM (Issue 2)"
- "Criteria for the Evaluation of RSCS within BREEAM (v4.0)"

EMS are awarded an RSCS summary score level according to the requirements in this guidance note.

These summary score levels are used in conjunction with a BREEAM calculator tool (typically called the Mat 03 calculator tool) to determine how many BREEAM credits can be awarded for the asset undergoing BREEAM assessment.

The above documents, background information on BREEAM RSCS evaluations and information on how to have a RSCS evaluated by BRE Global can be found on the BREEAM website.

This guidance note provides a list of currently recognised RSCS and EMS along with their associated summary score levels. It also offers guidance on how to apply the RSCS summary score levels to previous schemes.

2. Application to BREEAM versions

RSCS and EMS recognised by BREEAM, along with their associated summary score levels, as set out in this guidance note are applicable to all current BREEAM building and infrastructure schemes as set out in the respective technical documents. See Section 5 below for use of this document in connection with older versions of BREEAM. Where an assessment has been registered, a previous version of this document may be used if preferred as stated in section 3 below.

3. BREEAM Recognised RSCS and EMS

Table 1 below provides a list of BREEAM recognised RSCS and their associated summary score levels on a scale of 1 to 10.

Independently certified EMS's are also recognised to a limited degree as they partially comply with the BREEAM evaluation criteria. This is reviewed based on the extent to which they cover the supply chain process. Internationally recognised schemes such as ISO 14001 and EMAS (Eco Management and Audit Scheme) and local and / or sector specific EMS fall into this category.

This Guidance Note will be reissued as necessary to include new RSCS schemes as these are evaluated or to take account of changes in current schemes. Project teams must, therefore, ensure they are using the latest version of this table when carrying out assessments. The version of the table that was current at the time of registration of a BREEAM assessment can be used for the duration of the assessment to avoid the risk of changes in summary scores arising during the design process.

GN18 Rev 1.0 © BRE Global Limited December 2020

**Further guidance on how responsible sourcing is promoted in BREEAM and HQM can be accessed here. Guidance Note 18 explains to the users of Vinyl Verified® products how they can earn extra credits.**



## THE VINYLPLUS® PRODUCT LABEL COMMUNITY CONTINUES TO EXPAND

The success of the VinylPlus® Product Label is clearly proven by its constantly growing community. In December 2020, the German manufacturer and VinylPlus partner profine became the 11th PVC converter to join the VinylPlus® Product Label Community. profine brought 10 profile systems and the first 5 skin foam sheets ever certified with the VinylPlus certification scheme.

With this new certification, a total number of 128 PVC products manufactured in 10 different European countries currently hold a valid VinylPlus sustainability certificate.

VinylPlus® recognises companies that deliver the highest sustainability performance of PVC products through awarding the VinylPlus® Product Label trophy during an Awards Ceremony held at the annual VinylPlus Sustainability Forum. During the June 2021 forum, the following four companies received the Product Label Award: Epwin, Finstral, Internorm and profine.


**To date, a total number of 128 PVC products manufactured in 10 European countries currently hold a valid VinylPlus® Product Label certificate.**

The VinylPlus® Product Label Community

GEALAN · profine · REHAU · deceuninck · SCHÜCO · Internorm · SALAMANDER · FINSTRAL · VERSEIDAG · Epwin Window Systems · VEKA

vinyl plus® COMMITTED TO SUSTAINABLE DEVELOPMENT

**Find out more about the VinylPlus® Product Label and certified products at:**

productlabel.vinylplus.eu

# NIEMEYER CENTER

**TECHNICAL INFO**

PVC Membrane

**ARCHITECTS**

Oscar Niemeyer, Brasilia, Brazil
centroniemeyer.es

**LOCATION**

Avilés, Spain

"I am an architect and, as such, what I do is design buildings and that is just what I am going to do; design a building." And so, on a blank piece of paper, Brazilian architect Oscar Niemeyer began sketching curves, a skill in which he excels. With this, Niemeyer offered one of the best expressions of his talent.

**PICTURE CREDITS**

Niemeyer Centre

The first sketches, drawn with a thick black marker, formed the foundations of an ambitious cultural project which would be housed in, what Niemeyer himself called, his "most important project in Europe" and his only project in Spain. An auditorium for 1000 spectators spills onto a public plaza containing a viewing tower and a three-storey dome-shaped museum with an iconic PVC roof membrane. A spiral staircase leads to a mezzanine where light and sound installations were shown during the inaugural exhibition which featured work by film director Carlo Saura.

The Niemeyer Centre was created to attract talent, knowledge and creativity. The site serves as both a gateway to the best of the world's culture and as a hub of creation. Since the celebration of the First World Forum of Cultural Centres in Avilés, the Niemeyer Centre has collaborated with some of the most prestigious cultural centres across the world, including the Carnegie Hall, the Old Vic Theatre and Cannes Film Festival amongst others.

# CENTRO BOTÍN

**TECHNICAL INFO**

PVC Curtains

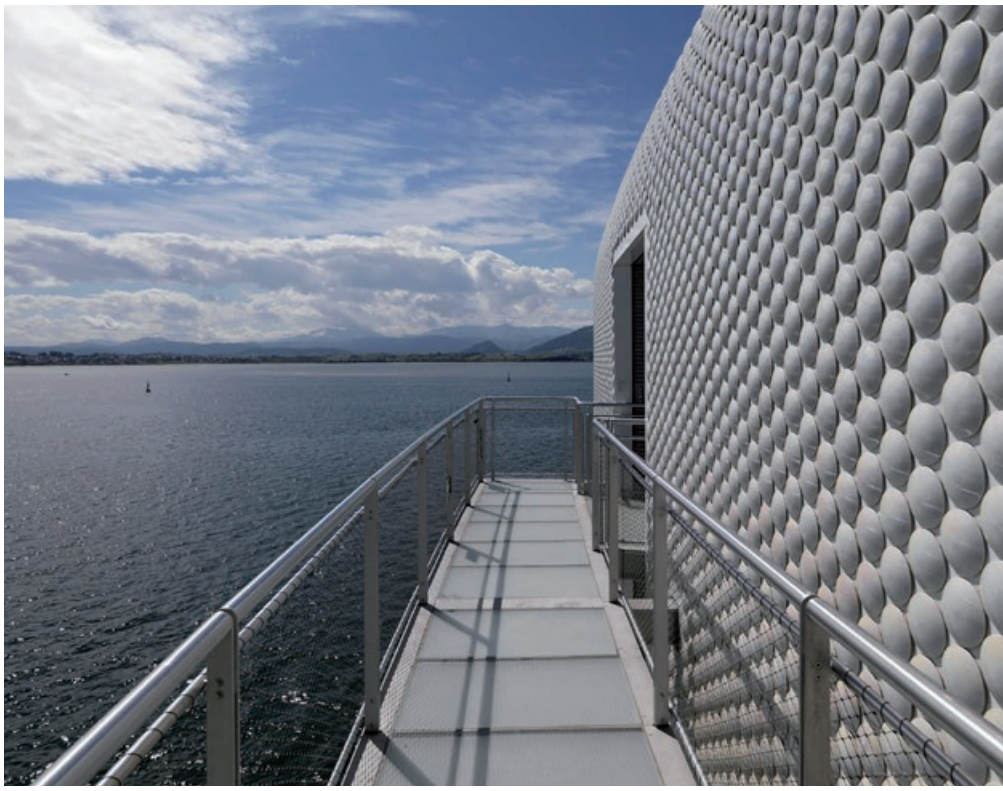
**ARCHITECTS**

Renzo Piano Building Workshop, Genova, Italy
rpbw.com

**LOCATION**

Santander, Spain


The Centro Botín is a space for art, culture and diverse activities of the Fundación Botín. Constructed in the Jardines de Pereda on the seafront of the city of Santander in Spain, the project reclaims an area previously used as a car park and restores it for the city's use. The site, organised as an extension of the city grid, provides direct access from the historic town centre to the waterfront enhancing the city's connection to the coast.



The building is a new visual and cultural landmark as well as a means of accommodating the activities of the Botín Foundation. Thanks to the Foundation's diverse cultural and research programmes, the centre is a driver of Santander's cultural, social and economic development.

By rerouting the traffic from the Paseo del Muelle into a 200m-long tunnel, Jardines de Pereda was extended to the seafront doubling its size. The Centro de Arte Botín sits in this section of the park which is right by the water's edge. To its north, where various routes across the park from the city converge, is a new public plaza. An outdoor amphitheatre on the building's west side can seat up to 2,000 people for concerts or film showings.

The centre is organised in two parts, an East and West Wing, joined by an elevated walkway that culminates in a platform that cantilevers out over onto the sea. The West Wing of the building serves as an exhibition space with 2,500 $m^2$ of open space spread over two levels providing galleries and support areas. The upper level has a skylight system that allows a part of the gallery space to be naturally lit.

The smaller East Wing provides space for educational activities. It accommodates a convertible 7.5m-high auditorium area with 300 removable seats and a multi-purpose area of approximately 255 $m^2$ is located on the building's upper level. The auditorium has a glazed façade to the south offering space for speakers, actors, or musicians to perform against the backdrop of the bay. The exterior is clad with small, off-white ceramic tiles that easily adapt to the shape of the building with a shimmering, mother-of-pearl finish that enhances the building's luminosity under Santander's often grey sky.

Solar shades are the building's essential architectural features which delicately filter in light to make the spaces bright. The ground floor of both buildings is entirely open-air and lined with shops, relaxation and play areas and even a restaurant created by two-Michelin star chef Jesús Sánchez.

The long glass façade that faces the city is furnished with motorised and suspended PVC curtains with 6 mm steel ropes which follow the inclined geometry of the roof and the curvature of the façade thanks to the elegant satin-finish stainless steel brackets. The PVC curtain combines a refined effect with a sophisticated technical functionality. The elegantly ribbed structure transmits great aesthetic appeal in addition to excellent sound-absorbing properties.

**PICTURE CREDITS**

Enrico Cano;
Photo Resstende

# CON-NECT-ED-NESS PAVILION

## TECHNICAL INFO

PVC Pipes

**ARCHITECTS**

Lundgaard & Tranberg Architects, Copenhagen, Denmark
ltarkitekter.dk

**LOCATION**

La Biennale di Venezia, Italy

For the 17th international architecture exhibition 'La Biennale di Venezia 2021', Denmark created a water cyclic system that connects people with nature and one another.

The national pavilion, titled "Con-nect-ed-ness", was created by Marianne Krogh and Lundgaard & Tranberg Architects and is on display from 22 May until 21 November 2021.

Showcasing an installation consisting of a large cyclic system of water collected locally in Venice, visitors are reminded of how architecture as an art form can make the invisible visible while emphasising the interconnectedness between people and their natural settings. Inside the Danish Pavilion, visitors are immersed in the natural cyclic system that presents water as the core element.

The PVC pipes running throughout the building and the water collection tanks outside are exposed guiding the visit with the flow of the water. While exploring the exhibition, visitors can become part of the cyclic system by drinking a cup of tea brewed with leaves from the lemon verbena trees planted within the Pavilion. The trees are also part of the extensive cyclic system as they draw water from it.

PVC pipes collect rainwater from outdoors and lead it on a closed-loop journey throughout the exhibition. The reservoir of rainwater is the installation's source of water and is connected to its interior via an exposed pipe.

To enter the exhibition, visitors must walk past the reservoir and follow a narrow wooden ramp that leads to the pavilion entrance.

**PICTURE CREDITS**

Hampus Berndtson

# NEXUS8, TRAUMATOLOGY & PHYSIOTHERAPY CLINIC

**TECHNICAL INFO**

PVC Membrane

**ARCHITECTS**

Magicarch,
Madrid, Spain
magicarch.es

**LOCATION**

Murcia, Spain

Magicarch Office presents Nexus8 - a concept for a Traumatology and Physiotherapy Clinic which envisions a new way of understanding medical spaces.

Nexus8's design enables metabolic architectures that draws inspiration from rehabilitation techniques based on the hormonal response of the human body. Rooms are characterised by the intensity, direction and saturation of the light that patients and visitors perceive depending on where they are positioned within the site. This plays an essential part in the chromatic design process.

The entrance and reception areas are located at the core of the premises featuring a well-ventilated space that benefits from its great height and luminosity. In the eastern section of the Clinic is the rehabilitation gym characterised by pink shades. In front of the large windows, patients can rest or wait at the provided sitting area. The cellular polycarbonate wall divides the space located at the end of the premise where PVC ceilings are lowered in order to efficiently heat and ventilate the rooms. The PVC ceilings are also backlit with a regulated light.

The carefully designed spatial organisation enables air convection that not only contributes to improved indoor climatic condition, but also allows for sustainable energy and economic savings.

**PICTURE CREDITS**

David Frutos

# THE PLASTIC MUSEUM


**TECHNICAL INFO**

PVC Panels

**ARCHITECTS**

Delavegacanolasso, Madrid, Spain
delavegacanolasso.com

**LOCATION**

Madrid, Spain

The Plastic Museum was created to demonstrate the vital role that plastic plays in our lives and the possibilities that reuse and recycling can offer. The Museum not only exhibited plastic objects, but was also entirely built from this material.Through the displayed artefacts, such as essential objects for healthcare, communication, construction, food and mobility, visitors learned about the various crucial functions that plastic serves in our daily lives.

The Museum highlighted the importance of using plastic correctly and its contribution to protecting the environment at all stages: eco-design, use, reuse and recycling. It also demonstrated the material's contribution to combating climate change by reducing energy consumption and $CO_2$ emissions.

On 17 May, World Recycling Day, the structure of the Plastic Museum was dismantled with all the parts either reused or recycled to further highlight the importance of keeping plastic within the circular economy. The walls, ceilings and floors were recycled and transformed into new objects giving them a new life.

The Museum was designed by the Spanish architectural studio Delavegacanolasso which specialises in plastic material and prefabricated modular architecture. With a spaceof 73.5 $m^2$, the Museum was built with a variety of plastic articles and polymers, such as PVC panels. Embodying a modern and avant-garde design, the construction utilised both natural and artificial light to create a luminous appearance. Across its three rooms, the Museum presented itself as a transformative space with a clear objective; to reform the public's negative perception of plastic by demonstrating how plastic can be a circular and sustainable material when used correctly.

**PICTURE CREDITS**

Subliminal

# HYMN TO THE BIG WHEEL

**TECHNICAL INFO**

PVC Sheets

**ARTIST**

Liz West,
London, UK
www.liz-west.com

**LOCATION**

Canary Wharf,
London, UK

British artist Liz West creates imaginative installations that explore the relationship between two fundamental elements in art - colour and light. Her newest piece is an immersive sculptural work located in Canary Wharf in London. Entitled “Hymn to the Big Wheel”, this outdoor installation invites the public into its octagonal walls to see the numerous ways that natural light can interact with the colours of the rainbow.

“Hymn to the Big Wheel” is an immersive sculptural work exploring the illusion and physicality of colour and natural light in space. Consisting of a multi-coloured octagon nestled within a larger octagonal shape, the structure encourages the viewer to constantly reposition and look through different panels to experience the full scope of colours that constantly mix and change before their eyes. Constructed using transparent PVC and polycarbonate-coloured sheets, the work prompts the playful movement of visitors to explore the work within the context of their surroundings.

This immersive installation is an exhilarating expression of colour that radiates across the space it inhabits to create an intriguing interplay of multi-coloured shadows for passersby to discover. The viewer becomes an active participant in the work as they move around the installation to explore the changing optics and colours.

**PICTURE CREDITS**

Sean Pollock Photography / Canary Wharf Arts + Events

# CHILDREN PAVILION

**TECHNICAL INFO**

PVC Membrane

**ARCHITECTS**

Taper Arkitektura,
Madrid, Spain
taperarkitektura.com

**LOCATION**

Bilbao,
Spain

**PICTURE CREDITS**

Biderbost

The Pavilion designed by Madrid-based Taper Arkitektura provides a recreational area for children by providing a playground in an unlikely location. The Pavilion is fully covered by a 700m$^2$ PVC membrane roof.

The structure seeks to generate the least amount of visual dissonance taking into account its size and its location under a highway. For this reason, a steel structure covered by a light PVC membrane was selected to create an isolated space within a busy surrounding.

The concrete wall that encircles the perimeter of the playground shows a range of levels with its height ranging from 50cm at the lowest points up to 170cm at the four corners from where the structure burgeons. By using the corners as the starting points of the roof's construction and thanks to its expansive configuration, it protects everything under the covering from rain and wind.

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**THE EUROPEAN COUNCIL OF VINYL MANUFACTURERS**

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