



# **BUSINESS CASES**



# Editorial

Evalam is a Pujol Group company, a leading group and international benchmark specialized in the development of laminated glass with EVA and other interlayers.

For the past 15 years, Evalam has designed and brought to market solutions for use in homes and buildings. This has made us the international reference company for EVA for architectural use.

At Evalam we are committed to designing products that help to improve the performance of glass on facades, allowing it to meet the requirements of end users in terms of comfort, protection and useful life.

Together with our partners and distributors around the world, we have equipped hundreds of buildings and unique works with the different product lines of our firm. Our projects cover a wide typology, ranging from equipment for public use, to residential buildings, educational, leisure or even means of transport.

By publishing this reference book, we wish to show a non-exhaustive description of some international projects completed between 2010 and 2020. We thus demonstrate that Evalam is your leading partner in the use of EVA laminated glass for architectural use. Because our clients and partners are our best ambassadors.

**SINCE 1911 NO LIMITS IN GLASS CREATION.**

# Índice



## 6

### Public

Helsinki Airport  
Valencia Subway



## 12

### Hospitality

Monument Hotel  
Hydros Hotel  
Silken Saaj Hotel



## 20

### Residential

Infinity Building  
Ginco Residence Tower  
Al Hathboor  
Sky Garden Tower  
Singular house – Panamá



# 32

## Leisure

Paranaense Arena  
Ancient Serdica Museum  
Allas Sea Pool  
Harrods  
Foot District  
Rinascente Department  
Store



# 48

## Education

Center for Novel Therapeutics  
Melbourne Grammar School



# 54

## Transportation

Mein Schiff  
Costa Smeralda



# Public

Buildings designed for public use must offer the best guarantees of safety for people and greater durability over the years. We invite you to discover how Evalam has contributed to the users to enjoy the projects.



# Helsinki Airport

## Finland – 2017

Is the most important airport in the country, and also one of the busiest in the Nordic countries. The expansion of terminal 2 includes buildings: “City Hall” and “Security Box”. The “City Hall” building houses the check-in and arrival rooms, the “Security Box” houses the security control and baggage claim areas.

The terminal welcomes travelers with a large glass area, which conveys a feeling of spaciousness openness. This large glass surface also provides a large amount of natural light, something in high demand in all public spaces. The design took into account all the characteristics required of glass, that is, protection against excessive thermal loads and overheating, and also required insulation from sound and cold air outside. The last two demands were a big challenge due to the extreme weather conditions during most of the year and also due to the acoustic conditions because of the location and use of the building. In addition, the design and final cost of the glass were taken into account. These challenges were answered by Lasiliiri Oy, in cooperation with Teräselementti Oy with great success.

The total surface area of glass manufactured and installed was 2,500 m<sup>2</sup>. The size of the glass and their design were the main challenges for the manufacturer. A new investment by Lasiliiri Oy in the Pujol lamination line, allowed all the large laminated glass to be manufactured in its own facilities with absolute guarantees to be able to successfully achieve the full scale of the project.

The façade and the interior windows were laminated with EVA from Evalam, which was the chosen solution due to its superior results compared to PVB lamination. Evalam, a brand belonging to Pujol Group, is the first EVA (ethyl-vinyl-acetate) on the market that provides better properties than PVB. The main advantages of which are excellent light transmission, high adhesion, great acoustic insulation, resistance to humidity to avoid delaminations and also provides crosslink, a unique reinforcement thanks to the molecular structure of cross-linking (crosslinking) that provides the strength and durability of laminated glass, the crosslinking in Evalam is more than 87% which make it the ideal solution in projects that require high properties.





*View from inside of the airport through a laminated glass composition with Evalam Visual.*

**Architect:** ALA Architects  
**Laminators:** Lasiliri Oy and Teräselementti Oy  
**Solution:** Evalam Visual  
**Laminated surface:** 2.500m<sup>2</sup>



# Valencia

## Subway

Spain – 2011

The Benimàmet metro station, opened in 2011 in Valencia, was a challenge that allowed us to play with textures and colors. The result was a very pleasing visual effect for all subway users.

The dichroic material, laminated between two glass pieces, changes the façade appearance depending on the time of day and the perspective from which it is viewed, thus creating a unique and spectacular finish.

The interior of the station also has decorations laminated with Evalam and dichroic material. The design brings a unique feel to the traveller.

The EVA chosen to do this complex work was Evalam 80-120, which is an EVA recommended for use together with special inserts that cannot withstand temperatures above 100°C. With Evalam 80-120, the impossible can be laminated.

**Architect:** Luis Ferrer Obanos

**Laminators:** Luniglass-Crisdur

**Solution:** Evalam 80-120

*Glass laminated with Evalam 80-120*

# Hospitality

The hospitality sector is in constant evolution and it is necessary to always be on the latest technology to be able to satisfy the needs and demands of this demanding sector. The buildings seek the originality and the surprise of their guests, differing in this way from the rest and being unique, discover how Evalam es participant in achieving the highest demands.







*Glasswall laminated with Evalam Visual*

**Pre-project:** Oscar Tusquets

**Architects:** Carles Bassó and Tote Moreno

**Laminators:** Vidres Viola

**Designer:** Mercè Borrell

**Solution:** Evalam Visual

# Monument Hotel

## Spain – 2016

The Monument Hotel was opened in 2016 with the collaboration of local architect Oscar Tusquets in the initial project. The architects Carles Bassó and Tote Moreno worked together with the interior designer Mercè Borrell; they were the people who design the restoration works of the hotel.

The challenge was to create clear atmospheres in the partition walls of the rooms, as well as luminosity throughout the hotel's surroundings, for which purpose a skylight was installed that allows the entry of natural light from the ceiling.

The solution was Evalam Visual, which is an EVA developed to meet the needs of customers looking to work with ultra-clear glass that requires a completely neutral appearance of the interlayer in the glass edge. Evalam Visual offers superior quality on the glass edge and lower UV filtering through the glass.





*Balustrades laminated with Evalam Visual*

# Hydros Hotel

## Spain – 2014

The Hotel Hydros is a hotel located in Malaga and inaugurated in 2014. The main challenge of the project was the lamination of elements in common areas with colored glass, especially all the access points to each individual floor and room.

On the one hand, the solution chosen for the stairs was Evalam Color. This product has been developed to work at 120°C without loss of tone around the edges. This provides a greater color intensity over time compared to 80°C color EVA work, which prioritizes tone uniformity over material durability. Using Pujol ovens, both objectives are achieved: durability and color uniformity.

On the other hand, for the balustrades Evalam Visual was chosen, a material that, when laminated, provides maximum transparency, resistance and durability.



**Laminators:** Lamiglass  
**Solution:** Evalam Visual and Evalam Color

*Stairs laminated with Evalam Color*

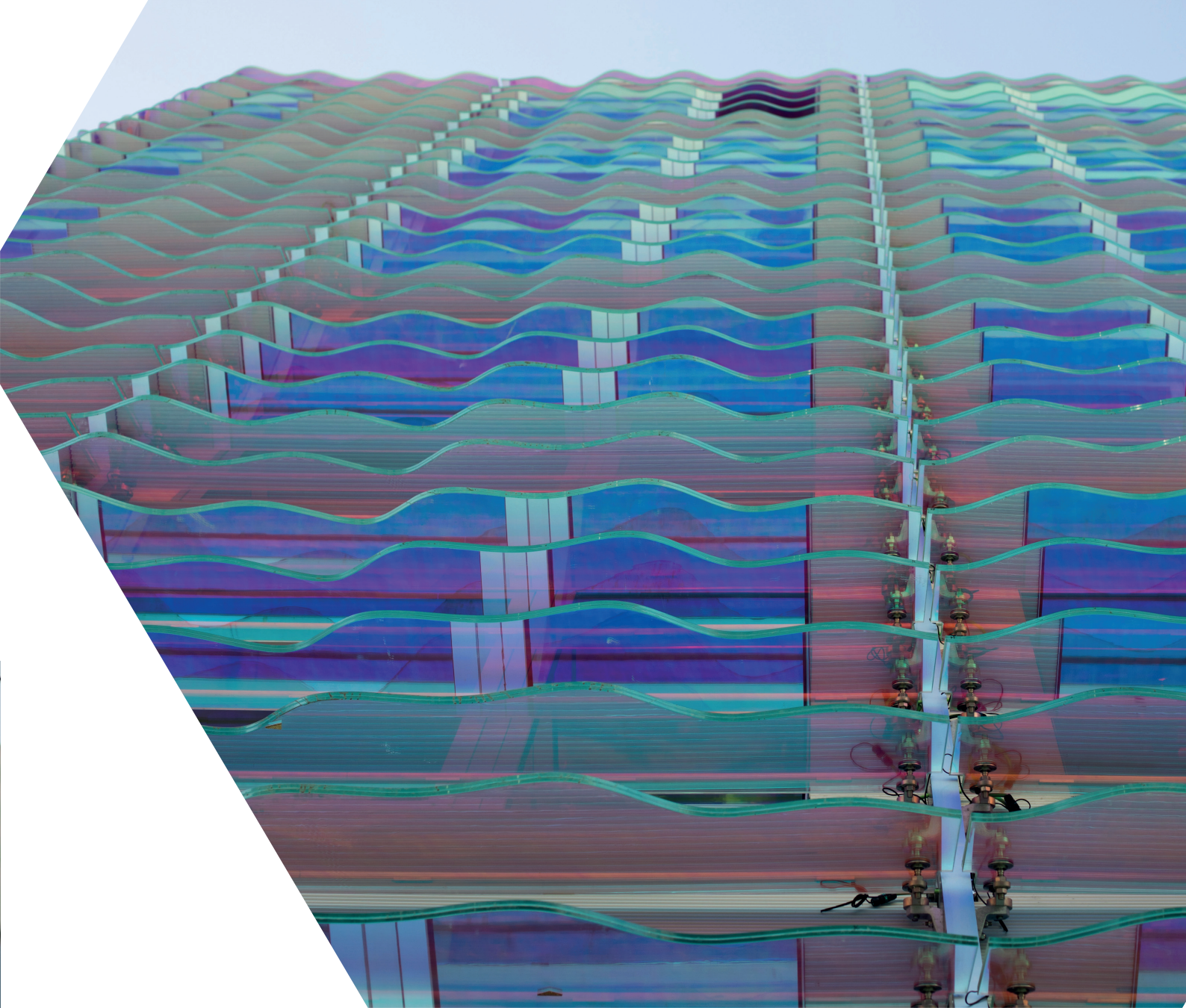
# Silken SAAJ Hotel

## Spain – 2019

The Hotel Silken Saaj, located in Las Palmas de Gran Canaria, has become one of Evalam's reference works in a short time. This hotel not only impresses with its rooms and services, but also with all the details that have been taken in to consideration during its design.

Its façade has become a symbol that is easily identifiable, it is made of laminated dichroic glass that changes color according to the reflection of the sky.





*Facade laminated with Evalam Visual and Evalam Color*

TVITEC, a leading company in the sector, was in charge of the lamination of all the glass used. They had to put all their professionalism and capacity for innovation at the service of the architects of the UAD studio.

For the exterior, they manufactured almost 500 square meters of 10 + 10 mm tempered glass, many of them different shapes then laminated with dichroic film and Evalam Visual.

Evalam Visual, the chosen solution, has been developed to have a strong resistance to humidity, thus avoiding the dreaded delaminations that are generated when the glass is installed with an open edge in unfavorable weather conditions. In this case, the hotel is located on the seafront and the negative effect of saltpeter and humidity was taken in to consideration, which usually ends up having negative consequences on all materials, making Evalam Visual EVA the perfect material for the project.

**Architect:** UAD

**Laminators:** TVITEC

**Solution:** Evalam Visual

**Laminated surface:** 500m<sup>2</sup>



# Residential

Discover how Evalam's interior and exterior solutions turn a normal building into a singular and modern building, as well as giving comfort and safety to its occupants.



# Infinity Building

## Serbia – 2012

Finished in 2012, the “Infinity Belgrade” is a building that has changed the landscape of the city. It has 5 luxury spacious apartments with the area of 245 – 250m<sup>2</sup> and one penthouse with the area of 450m<sup>2</sup> with a fascinating view of the city core.

It's a premium construction quality, modern equipment and with advanced central air conditioning system enabling four different temperature zones in each apartment classify this architectural masterpiece among the most modern developments in Belgrade.

The challenge of Pujol Evalam, was to be in line with the rest of the best materials and techniques used for the construction of this emblematic building, the solution was Evalam Visual, which in addition to durability offers its occupants the best transparency, a great acoustic isolation and a crosslink index not surpassed by any other EVA in the market.

**Architect:** Miodrag Mirkovic

**Laminators:** Pavle Doo

**Solution:** Evalam Visual



*Facade laminated with Evalam Visual*



*Facade and balustrades laminated with Evalam Color and Evalam Visual*

# Ginco Residence Tower

## United Arabian Emirates – 2018

This project is a residential building consisting of 26 levels and 4 parking podiums. The low level consists of building entrance, commercial area in one of the most demanding countries in the world in terms of quality and in terms of environmental conditions.

The chosen solution for this buildings high specification was Evalam Color Acid White, one of our five special colours approved for outdoor use. This is a special EVA, approved for outdoor, developed after years of investigations to resist temperatures up to 120°C, without loss of pitch around the edges. This provides greater colour strength over time compared with coloured EVA's working at 80°C which prioritize the uniformity of tone against the durability of the material. By using Evalam Color and Pujol laminating ovens both objectives are achieved: durability and colour uniformity.

**Architect:** Ginko UAE

**Laminators:** Glasstech

**Solution:** Evalam Visual and Evalam Color



# Al Hathboor

## United Arab Emirates – 2018

It is a 12-story commercial and residential building in Dubai. The architects are aware that the United Arab Emirates is one of the most demanding countries in the world in terms of quality and environmental conditions, that is why they have worked with Evalam and not with any other material.

The use of Evalam Visual, has been chosen for its maximum transparency, for the resistance to fragmentation after a rupture, for the acoustic isolation, as well as for the resistance to the safety of people and goods.

**Architect:** SBK Real State

**Laminators:** Glasstech

**Solution:** Evalam Visual



*Balustrades laminadas con Evalam Visual*



*Facade and balustrades laminated with Evalam Visual and Evalam Color*

# The Sky Garden Tower

## United Arab Emirates – 2019

The Sky Garden Tower is designed to be a unique piece of architecture that makes a modern statement. The tower is based on a conventional grid of columns that suspend modular architectural boxes, it's an iconic residential waterfront project, designed by renowned architect James Law.

Tower is state of the art residential tower comprising of condominiums over various sizes stacked in a series of architectural boxes that creates the effect of sky gardens in three segments of the building.

Due to the demanding conditions of temperature and exposure to the sea in the area, Evalam Visual has been the material of choice; a product that provides maximum transparency and protection to the glass once laminated.

**Architect:** James Law

**Laminators:** Glasstech

**Solution:** Evalam Visual and Evalam Color



# Singular house

## Panama – 2020

Located in Playa Coronado, we find this luxurious single-family home with a modern design, in which wood, stone and glass have been used as the main construction materials. All of them of the highest quality.

Regarding glass, the project was carried out by the local company TEMPERBRAZ, which supplied all the glass for the project. This includes the handrails, balustrades, windows, large windows, as well as a glazed structure that acts as a protective wall for a Jacuzzi integrated into the pool.

The composition of the panels for the glazing of the pool is 5 ultra-clear glass pieces of 10 mm. In addition, four of the five internal glass pieces are tempered with the last piece being normal annealed to provide a brace should a spontaneous breakage occur. The glasses are laminated with Evalam Visual with a thickness of 1.52 mm between each one. Evalam Visual has been developed to have a strong and long resistance to humidity, to avoid delamination generated in weather conditions or unfavourable environments with high humidity and high temperatures. The joints were sealed with transparent structural silicone. The panels were buried 25 cm in a concrete channel, supported on a urethane bed and anchored with quick-drying mortar.

8 + 8 laminated tempered glass was used with Evalam Acid White for all the handrails in the house, both interior and exterior. This finish has the strict European certification for outdoor use. For the railings (10 + 10 low iron tempered) and for the rest of the glass in the house (DVH of 6 mm tempered + 12 mm chamber 5 + 5 laminated) Evalam Visual was chosen for its maximum transparency and its optical properties after the glass is laminated.

**Architect:** Ivan Casis & Asociados

**Laminators:** TEMPERBRAZ

**Solution:** Evalam Visual and Evalam Color



*Jacuzzi glass laminated with Evalam Visual*



*Balustrades laminated with Evalam Visual*



***Windows and balustrades laminated with Evalam Visual***



***Jacuzzi glass laminated with Evalam Visual***



# Leisure

The constructions destined to the leisure projected with glass like main characteristic element suppose a high level of exigency; they must contribute so much with an interesting design, the durability must be assured and of course, the security of being a place of attended affluence of people must be guaranteed. Discover how Evalam has supported making the following projects in their cities iconic.



# Paranaense

## Arena

### Brazil – 2014

Inaugurated in June 1999, the Atletico-PR stadium was already considered the most modern in Brazil. With capacity for 25 thousand people, the Arena da Baixada needed to be altered to host the 2014 World Cup.

The architectural solution adopted was to create a new image as an icon of the city: an “Illuminated Box”. The materials used were standardized and preferably produced in the country. Materially, a permeability was sought between the interior and the exterior, which, through its technologies of lightness, translucency, lighting and image, produced a real interaction with citizens.

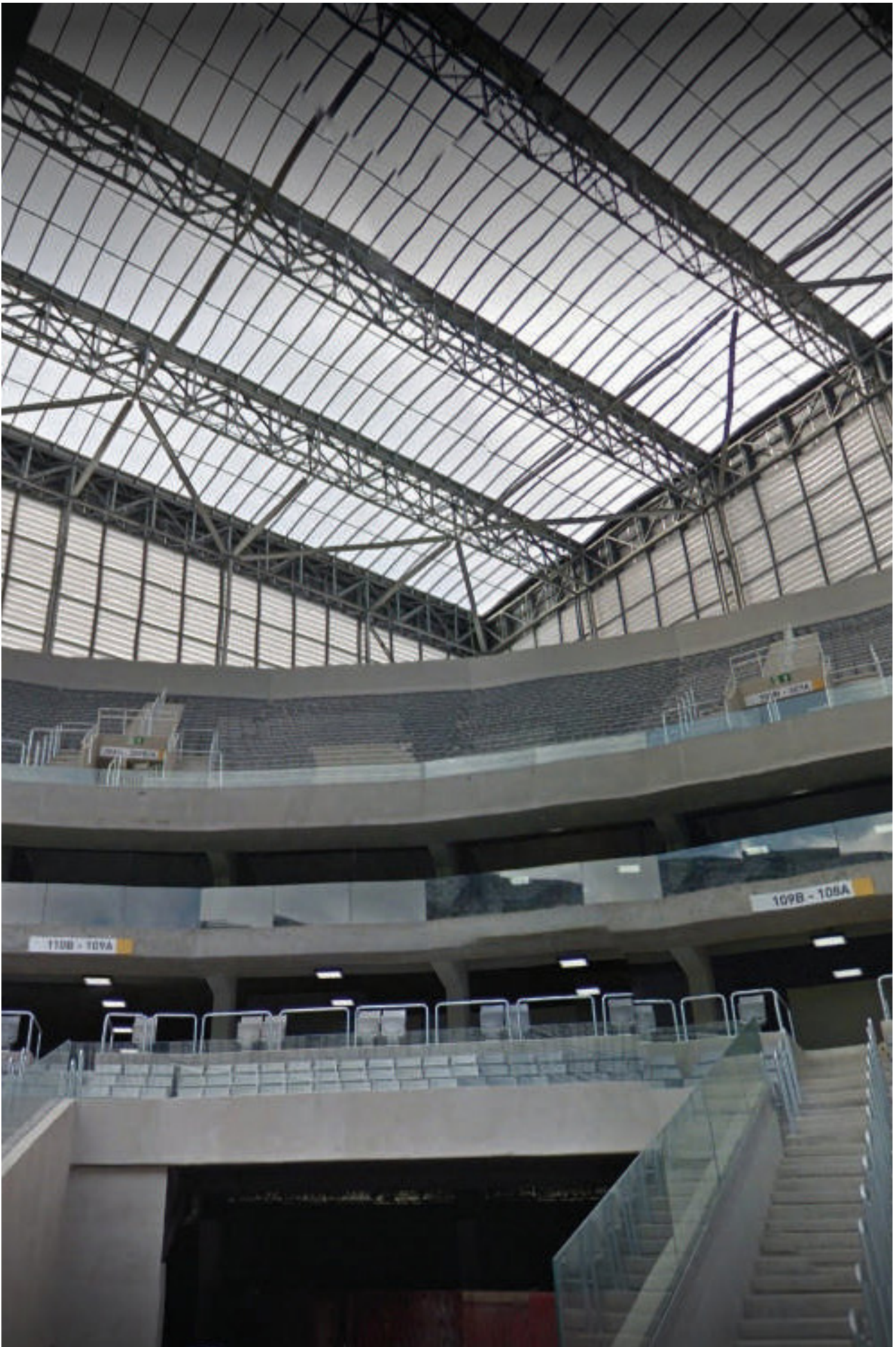
The glass elements of the stadium, such as the handrails, and elements of the facade and VIP room, are made with Evalam, which was chosen for its maximum reliability of thermal-acoustic comfort and luminous stability to humidity and open edges.

**Laminators:** Unividrios

**Solution:** Evalam Visual



*Structures laminated with Evalam*





*Dome laminated with Evalam Visual*



# Ancient Serdica Museum Bulgaria – 2014

The project for the open-air Museum of the Ancient Serdica was commissioned by the Ministry of Culture and comprises an area of 800 square meters where are three domes of laminated glass.

The winning contractor was tasked to cover a free space of fifteen meters wide by two hundred meters long. Given the dimensions of the space, the architect, builder and glass contractor decided to divide it into three areas and cover each one of them with domes of transparent glass. These stand out and provide architectural value while fulfilling the strict standards of European safety applicable to large Public Works with a great influx of visitors.

The glass domes can sustain a weight up to 226 kgs with their thickness of 17.5mm (11/16"). The total area of the domes is 800 square meters.

Thanks to the durability of Evalam Visual, without losing inert properties of high adhesion and Crosslink; it is the essential complement for use in curved + tempered glass, in which the flatness of the glass is compromised. This meant architect specified Evalam Visual over traditional PVB systems, for its unparalleled adhesion values above 140N/cm<sup>2</sup> for Evalam compared to PVB values of 60 N/cm<sup>2</sup>. Assuring higher durability and a lower risk of long-term delamination.

**Architect:** Prototyp  
**Laminators:** Kristian Neiko  
**Solution:** Evalam Visual  
**Laminated surface:** 800m<sup>2</sup>

# Allas Sea Pool

## Finland – 2016

Inaugurated in 2016, Allas Sea Pool is a unique hub for urban life in Helsinki's south harbour. The buildings have a total surface area of 1,600 m<sup>2</sup>, which is enough even for considerable crowds, 3,500 visitors can attend at one time.

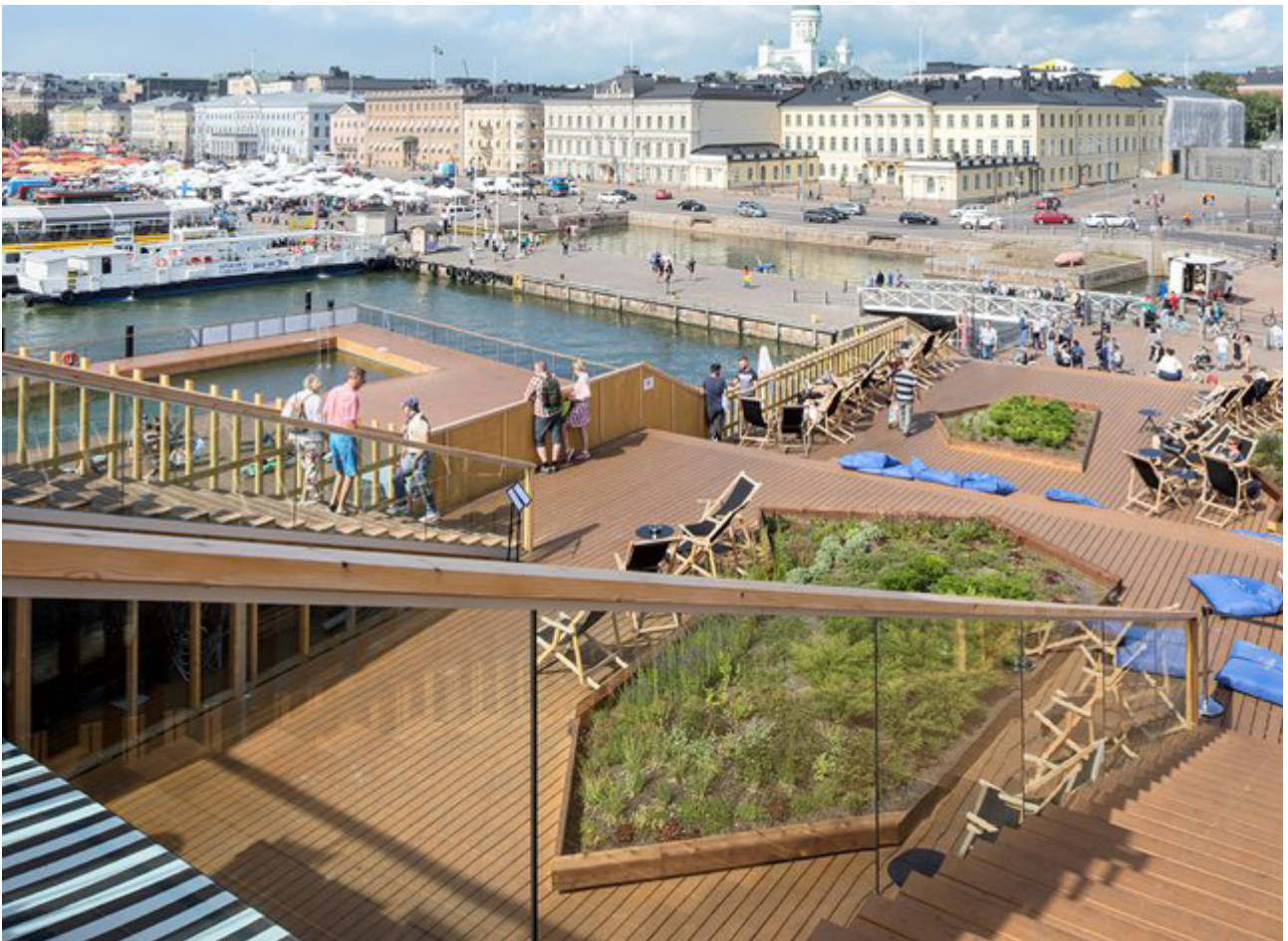
The main challenge of the project required the building of an ultra-clear laminated glass on railings and some other elements of the building. The solution was Evalam Visual, which offer the best transparency for high end architectural.



**Architect:** Huttunen–Lipasti–Pakkanen Architects

**Laminators:** Lasiliiri Oy

**Solution:** Evalam Visual



*Balustrades laminated with Evalam Visual*

# Harrods

## United Kingdom – 2012

In the mythical shopping centre of London Harrods; the task undertaken was the remodelling of the iconic central dome which allows natural light to brighten the entire space while ensuring a safe entry to the department stores. This piece has been made entirely with Pujol technology and materials.

The dome designed by the architect Ian Tomas and manufactured by Glass UK, is made with curved float glass, laminated 6+6 with 4 layers of Evalam Visual and silk screen-printed. The curving of the glass was performed using Pujol oven BDG/V3 model 50x22 and the lamination was completed in oven Pujol HLH / Multichambered 60x32, a flexible oven capable of laminating glass pieces in the horizontal orientation up to a size of 6,000mm x 3200mm per support, with five independent supports.

The chosen interlayer was Evalam Visual, which provides an excellent transparency to the ensemble, along with an additional adhesion up to 180 N / cm<sup>2</sup> avoiding delamination. Evalam also provided a higher sound insulation coefficient than the initial specification requirements. In this particular instance Evalam qualities were really appreciated due to the over-sized curved glass with dimensions of 5 x 2 meters.

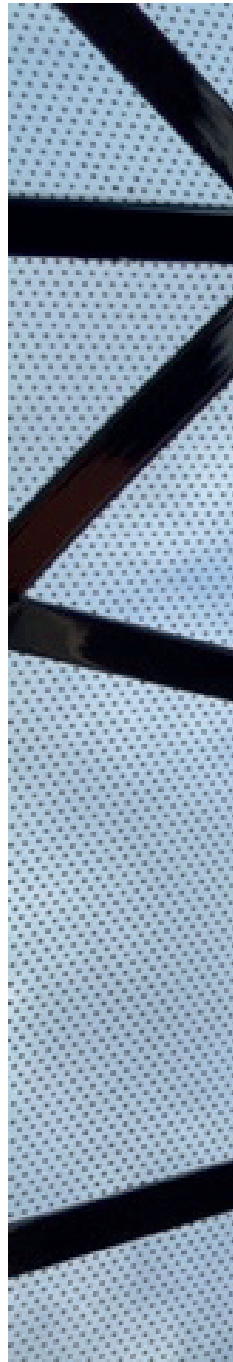
Another main reason for choosing Evalam over other traditional solutions such as PVB is Evalam's high crosslink index (85%) as well as being a thermosetting product against simple and unstable thermoplastics, making the complete solution capable of withstanding traditional English summer and winter conditions for the foreseeable future.

Along with the dome a large lobby with bespoke escalators has been built that marks a new phase in the history of Harrods.

**Architect:** Ian Tomas

**Laminators:** UK Glass

**Solution:** Evalam Visual





*Dome laminated with Evalam Visual*





# Foot District

## Spain – 2018

Located in the heart of Barcelona's Gothic quarter, in a centenary building, Foot District is a store that takes its customers into an architectural dream. History, geometry, symbolism, and modern design occupies every inch of the store to present sneakers and streetwear in a new light, reflecting their art form and transforming fashion into a kind of alchemy for the modern world.

The space was renovated to maintain the historical elements and charm of centuries gone by, but with the most advanced technology. There, under the Gothic archways, and before reaching an outdoor yard that fills the store with light, there is a giant glass cube. Within the walls of the glass cube, you can see Air Jordan sneakers all around, as if they were suspended in air.

Stepping into the magic glass cube, you find yourself in an experience unlike any other. You can choose a sneaker from the wall and place it on a ledge that contains a footprint with the words "Place Here". The walls of the glass cube become opaque thanks to the PDLC glass and then the customer will discover a very interesting shopping experience.

i-ON by Pujol is the most advanced technological glass developed by Pujol for architectural uses that brings the best transparency or total privacy and connects easily to any control system.

**Laminators:** Baix Germans



# Off

*Laminated with Evalam and i-ON by Pujol*



# On

*Laminated with Evalam and i-ON by Pujol*

# Rinascente

# Palermo

## Italy – 2010

The project for the new Rinascente department store in Palermo is powerful yet delicate at the same time. Underpinning this balance is the choice to preserve traces of the existing building by superimposing an opalescent facade on them, giving the appearance of a transparent building. This “glacial skin”, with Evalam Color, is an architectural surface through which the old can still be seen, becoming one with the contemporary dimension. At night, the building is transformed into a bright, translucent lantern.

Asastudio chose Evalam Visual and Evalam Color (Acid White, one of our five colours approved for outdoor use), which provides an excellent result in facades. After years of investigation, Hornos Pujol is the first company in the market to present five outdoor colours certified according to the European standard.

**Architect:** ASA Studio Albanese

**Laminators:** Labor Vetro

**Solution:** Evalam Visual and Evalam Color (Acid White)





***Balustrades laminated with Evalam Visual***



***Facade laminated with Evalam Color (Acid White)***



# Education

All buildings dedicated to teaching and learning have something in common: they transmit and generate knowledge. For this, comfort and quiet spaces are needed. With Evalam products, it is possible to create a comfortable environment suitable for all kinds of educational activities.





# Center for Novel Therapeutics

United States – 2019



The University of California is one of the top 15 research universities in the world. This University is bringing the pharmaceutical industry onto its campus, giving entrepreneurs and corporations more access to the university's market-worthy research and advancing public-private collaboration.

The architects responsible for the design of this building was Perkins + Will. The Center for Novel Therapeutics is LEED® Gold Certified thanks to the renewable energy provided by the solar PV glass laminated with Evalam Visual.

**Architect:** Perkins + Will  
**Laminators:** Onyx Solar  
**Solution:** Evalam Visual

# Melbourne Grammar School

Australia – 2017



The Melbourne Grammar School is one of Australia's leading independent schools, with a tradition of excellence extending over more than 160 years. Evalam Visual has been used in strengthening the glass laminated with photovoltaic interlayers.

Aesthetically, it is a singular, clear and simple structural form, sympathetic to the campus heritage. Internally, the building supports the scientific and technology-driven investigations carried out by the students and encourages creativity, learning, and social interaction.

The construction of this building was awarded to Kane Constructions and Denton Corker Marshall architects.

**Architect:** Kane Constructions and Denton Corker Marshall.

**Laminators:** Onyx Solar

**Solution:** Evalam Visual



# TRANSPORTATION

The demanding sector of transportation constantly seeks solutions that give emotions to get the loyalty of their users, this is as important as offering them the highest warranties in terms of safety during their use. Thanks to Evalam's solutions, it is possible to achieve all this successfully. Discover how in the following projects developed.







# Mein Schiff 1

## Finland – 2019

The shipyard, Meyer Turku (Finland) was in charge of building the ship “Mein Schiff 1”, for the German company Tui Cruises. It is a new design that makes the difference with its precedents.

The ship measures 315m length, with capacity for 3,132 passengers in 1,437 cabins, plus 1,092 crew. A project that has paid special attention to the environment and greater energy efficiency, which highlights the incorporation of catalytic converters in the main and auxiliary engines and the reduction of nitrogen oxide emissions.

In its attractive design, highlights one of the main stairs, the container whose steps and rail are laminated glass with Evalam Visual have been manufactured in a Pujol LAM-PRO Duo Oven by the Finnish company Kaune Oy.

The use of Evalam Visual, has been chosen for its maximum transparency, for the resistance to fragmentation after a rupture, for the acoustic isolation, as well as for the resistance to the safety of people and goods.

**Laminators:** Kaune Oy  
**Solution:** Evalam Visual



*Stairs and balustrades laminated with Evalam Visual*





# Costa Smeralda

## Finland – 2019



Costa Smeralda is the most important cruise liner of Costa Cruises and the only one in the world propelled thanks to Liquefied Natural Gas (LNG). With this, the Italian company has sought to develop a ship with the minimal ecological impact, almost completely eliminating emissions of particles and sulfuric acid, while significantly reducing nitrogen oxide and CO2 emissions. The Finnish shipyard Meyer Turku has been the managers of the construction of the Costa Smeralda, the new flagship of Costa Cruises.

To provide laminated glass of the highest quality to this floating city of 180,000 tons, 337 meters in length and 42 meters in width, the prestigious Finnish company Kaune Oy has relied on the combination of EVALAM with Pujol Industrial Ovens. This company, with more than 100 years of history in the glass sector, knows about the guarantees and solvency of Evalam solutions; which is the worldwide reference interlayers brand for glass.

For such a large project, 3,500 square meters of decorative glass have been installed, along with an additional 500 square metres of laminated glass destined for use on railings.

Costa Smeralda has been designed with all the fine details in mind and always with high quality products. That's the reason why Evalam Visual has been chosen; because it has characteristics and performances far superior to the PVB, such as maximum transparency, resistance to fragmentation after breakage, sound insulation, safety of persons and goods or the excellent resistance to moisture in open edge. Everything that a project of this size and characteristics could demand.

**Laminators:** Kaune Oy

**Solution:** Evalam Visual

“Our ambition is to get  
the best solution for  
each need, there is no  
limit in glass creation”

Jorge Pujol  
CEO Pujol Group



Carrer del Pla, 108-110  
Sant Feliu de Llobregat  
08980, Barcelona, Spain  
+34 93 685 56 72  
[www.evalam.net](http://www.evalam.net)

Evalam is a  **Pujol** company.  
Group