Think Trespa



Four homes nested in an Italian historical park.



Introducing two new Trespa® Meteon® design collections.

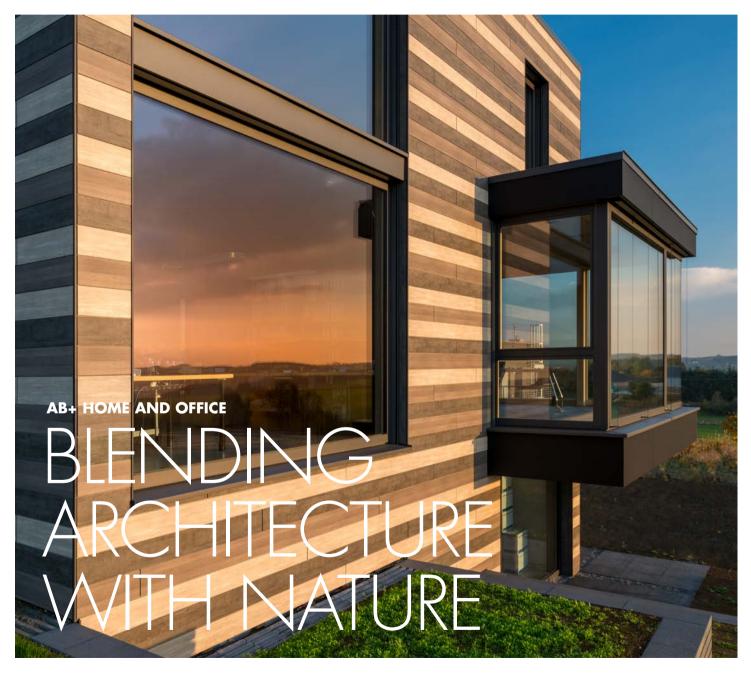
Build



Thermal comfort and energy efficiency analysis.



Trespa employees reflect on cooperation and improvement.



TRESPA®

Façades That Tell a Story #05. 2017

NEW METEON® LUMEN METALLICS

LM5101 Paris Silver

Available in Diffuse, Oblique and Specular finish.

TO EXPERIENCE THE EFFECT OF THE LUMEN FINISHES, WE ADVISE TO ORDER SAMPLES. ith the constant changes in energy legislation, especially in Europe, we are witnessing the growing importance of smart energy design in building construction. Ventilated façades can provide energy efficient solutions. Therefore, we are focusing on the development of decor technology that not only improves the aesthetics of our products but also takes into consideration the energy component.

"We are focusing on the development of decor technology that not only improves the aesthetics of our products but also takes into consideration the energy component."

In this issue, we have included a selection of forward-thinking projects where the energy aspect was fundamental. For instance, Kengo Kuma's Hikari buildings, partly cladded with Trespa[®] Meteon[®], which are part of the first positive energy mixed-use community in Europe.

As the energy efficiency needs to grow, also from a sustainability point of view the longevity aspect of the façade continues to hold an important role. Buildings must look good and stand the test of time. Trespa* panels have for decades a proven track record in longevity, in many climates all over the world. We are committed to continue investing in the development of new decors that foresee trends and can be used to create beautiful and durable façades.

André Horbach CEO, Trespa International B.V.



Experience

06, 24, 44, 50 REFERENCES

- Novo Lo Alegre Residential, Spain
- ► 'De Twister' Elementary School, The Netherlands
- Michigan State University's Brody Hall, United States
- ▶ Gapp GmbH Holzbau Office, Germany

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AMONG NATURE AND LIGHT



The design of the LDN Residences in Treviso, Italy, incorporates their surrounding and plays with reflections of light.

26 MODULAR CONSTRUCTION

The McAvoy Group is using modular builds clad with Trespa Pura NFC[®] in school projects across the United Kingdom.

46 UNIQUE HOLIDAY HOME



Frans Hofhuis envisioned a modern vacation house among the Dutch dunes. With Trespa Pura NFC^{*}, his dream home came true.

Imagine

2, 14, 19, 29, 35, 43, 49, 60, 66, 74

NEW TRESPA® METEON® FOCUS AND LUMEN METALLICS



Traces, cityscape compositions and light reflection inspired these new decor collections. *Find out more on page 14.*

30 HIKARI BUILDINGS



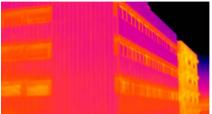
Kengo Kuma's project in Lyon, France, is Europe's first positive energy mixed-use community.

38 SUBDUE The Sun

The home and office of Architect Bernard de Barsy is illuminated with Trespa[®] Meteon[®] Lumen and Trespa Pura NFC[®].

Build

20 A VALUABLE STUDY



A thermographic study comparing a ventilated façade with one made of concrete.

54 SOLAR PROTECTION



Sunblinds made of Trespa[®] Meteon[®] protect the Ministry of Labour Office in Medellin, Colombia against the sun and vandalism.

GREATER

After renovating two Spanish properties, homeowners saw an increase of their home value and energy classification.

64 CATCHING HOLLYWOOD'S EYE

Trespa[®] Meteon[®], installed with the TS110 fixing system, created a robust new look for West Los Angeles College in California, USA.

Trust

36 **RELIABILITY** OF SUPPLY



Three Trespa employees share how cooperation, consistency and ongoing improvement, result in the company's 98% reliability of supply.

52 REFLECTING THE HEAT

Trespa[®] Meteon[®] SRT allows architects to design functional and aesthetic façades with dark colour combinations.

More



72 **TRESPA DESIGN CENTRES** Meet, Imagine, Experience

5

NOVO LO ALEGRE RESIDENTIAL



THE MODERN DESIGN OF THE FAÇADE GIVES THE HOUSE AN ELEGANT RHYTHM THAT BLENDS WITH ITS HISTORICAL SURROUNDINGS. PART OF A LARGER BUT INTIMATE COMPLEX, ITS SYMMETRY IS DELICATELY MARKED THROUGH THE USE OF PERGOLAS, WHICH SERVE AS CONNECTING BRIDGES. THROUGH A COMBINATION OF SHAPES, COMPLEMENTING DECORS AND THE PLAY OF LIGHTS AND SHADES, THE ARCHITECTS HAVE IMPRINTED A STRONG INDIVIDUAL CHARACTER.







Pilar de la Horadada, Spain



About the Project

PRINCIPAL PROMOCIONES MARGOVE SL

ARCHITECT FRANCISCO JOSÉ GÓMEZ VELÁZQUEZ, EDUARDO CESAR LÓPEZ SÁNCHEZ

INSTALLER JUAN D. DIOS VALERO MORENO, SL FIXING SYSTEM TS200 - INVISIBLE (CONCEALED)

FIXING WITH BRACKETS ON RAIL

INDIVIDUAL HOUSING

2013

TRESPA® PRODUCT TRESPA® METEON® UNI COLOURS, WOOD DECORS



A05.0.0 FINISH SATIN

LDN RESIDENCES

TEXT DANIELA CECCON PHOTOGRAPHY THEA VAN DEN HEUVEL / DAPh

IN THE CENTRE OF TREVISO, ITALY, FOUR INDEPENDENT HOUSES ARE HIDDEN BY NATURE. THE MODERN DESIGN REFLECTS THEIR SURROUNDING AND PLAYS WITH REFLECTIONS OF NATURAL LIGHT.

JR

"Reflection is the keyword of this project."

Andrea Rossetti, architect at ARK'it

1



About the Project

Architect Ark'it - Arch. Andrea Rossetti

PRINCIPAL GIORGIO RIGO COSTRUZIONI INSTALLER

IDEALSTILE S.R.L FIXING SYSTEM TS700 VISIBLE (EXPOSED) FIXING WITH RIVETS ON

A METAL SUB-FRAME MARKET SEGMENT

INDIVIDUAL HOUSING YEAR 2016

TRESPA® PRODUCT

TRESPA® METEON® METALLICS, NATURALS



finish Satin, Matt The rumbling chariot wheels can almost still be heard in the Krull historical park, extraordinary scenario of four hidden houses where modernity merges with nature.

Located in the centre of Treviso, in the heart of Italy's Veneto region, the park is partially protected by the Authority of fine arts. This special condition is necessary to safeguard places that otherwise would be destroyed by urbanization, but in this case it also made the project even more challenging for architect Andrea Rossetti and constructor Giorgio Rigo. To preserve the original traits of the location, the houses had to be perfectly immersed in it, in a constant exchange with nature.

"Reflection is the keyword of this project," explains Rossetti from ARK'it. "Firstly, it means reflection on the environment: we chose compact and clean volumes, which don't affect the view too much. Also, sustainable materials and the latest technologies were used to make almost zero impact houses. Secondly, it means physical reflection: thanks to the Trespa* Meteon* panels, the colours of the houses change according to the sunlight and to the chromatic variations of the nature itself, in a continuous dialogue with the surrounding park."

The integration with nature was obtained also by emphasizing new footpaths and hiding car ways as much as possible. An emotional and slightly irregular stone path takes visitors and residents to the houses through the centuries—old white hornbeams—which were already in the plot and were not touched. To preserve the soil's permeability, the grass on the car way is protected by a grid panel. The garage door is concealed, and even at night the lighting is very uniform, so that the four properties look more homogeneous when seen from the park.







"The colours of the houses change according to the sunlight and to the chromatic variations of the nature itself, in a continuous dialogue with the surrounding park."

Andrea Rossetti, architect at ARK'it

The strong relationship between the buildings and the natural landscape is emphasized by the architectural choices related to the life in the houses themselves: all four homes have big windows facing the park. Also, the internal space is extended towards the outside through the 'green room', a sort of patio that allows tenants to enjoy the beauty of nature while having access to the comforts of a room. Here, a bamboo wall maintains the privacy of the inhabitants from immediate neighbours, and a brise soleil structure allows to adjust the roof to different weather conditions, and thus to use this space much more than one could use a garden.

Nature and human presence are unified by an uninterrupted flow. From the trees and the old soil that used to be crossed by chariots, it reverberates in the coverings of the buildings, and then enters the houses through the 'green room' and the big glass windows. A flow that pervades also the interiors, where the main walls evoke the geometrical look of the outer façade.



While 'reflection' is the keyword chosen by the architect to describe this project, constructor Giorgio Rigo-head of Giorgio Rigo Costruzioni-, has another one: 'quality.' "I come from a family of constructors. My grandfather was doing this in 1959, and you know why we have always been successful? Because we always looked for quality, starting from the plot we decided to buy," he explains. And in this case, the location is really something special, although the several limitations posed by the authority made it a challenge to build from the very beginning. The risk of having four houses that were too similar was very high. "What I needed were houses that could fit and 'talk' with the surrounding environment but that could become unique places to live, as well," says Rigo. "By choosing a high-quality product like Trespa* Meteon* we could achieve this, and the panels unified and diversified the houses at the same time." Moreover, according to Rigo, the particular pattern of the panels chosen by the architect even enhanced the Trespa* products.

Moreover, having a house that always looks good without too much maintenance is definitely an added value," adds Rossetti.

The four buildings are a bit different in shape, although their size and structure are similar (230-250 m²). All of them are composed of two main blocks, a lower one—more solid and heavy—and a lighter upper one. This light look is given by the reflecting properties of the Trespa[®] Meteon[®] panels, in particular the Naturals Hardened Brown and Metallics Malachite Green, Aluminium Grey and Graphite Grey decors that were installed. Each of them reflects the light in a different way during the day, creating a special relationship between the home and the trees, the sky, the leaves and the sunlight.

"The panels are the trait d'union of the buildings, but each tenant could choose the colour, and thus give a personal touch to his own house," says Rigo. "As in previous cases, we decided to go for a high quality product, hoping that the customers would understand our choice. And they did."



"We managed to create something unique, and we can see that it is being appreciated."

Giorgio Rigo, head of Giorgio Rigo Costruzioni

"Apart from the aesthetical effect, we chose Trespa® panels because we wanted to have also the lowest impact on the environment in terms of energy consumption," clarifies architect Rossetti. "The ventilated façade is a high performance solution to save energy. Moreover, these panels are made of up to 70% natural fibres, they are durable and don't need any particular maintenance."

The houses have almost no-emission systems, eco-friendly insulation, hidden solar panels and home automation for the control and automation of lighting and heating. "Easy maintenance and energy saving may not seem that relevant in a luxury house, but this is actually very important for the durability of the building itself and, of course, for the environment. Rigo does not hide his pride and satisfaction for the result. "We managed to create something unique, and we can see that it is being appreciated not only by other architects and professionals in the field, but also by those who actually live there," he adds. "I think we really did justice to the special location we worked on." •







NEW METEON[®] LUMEN METALLICS

LM0641 China Gold

Available in Diffuse, Oblique and Specular finish

TO EXPERIENCE THE EFFECT OF THE LUMEN FINISHES, WE ADVISE TO ORDER SAMPLES.

NEW TRESPA® METEON® FOCUS AND IUMEN METALLICS JOURNEY THROUGH CREATIVE SPACE

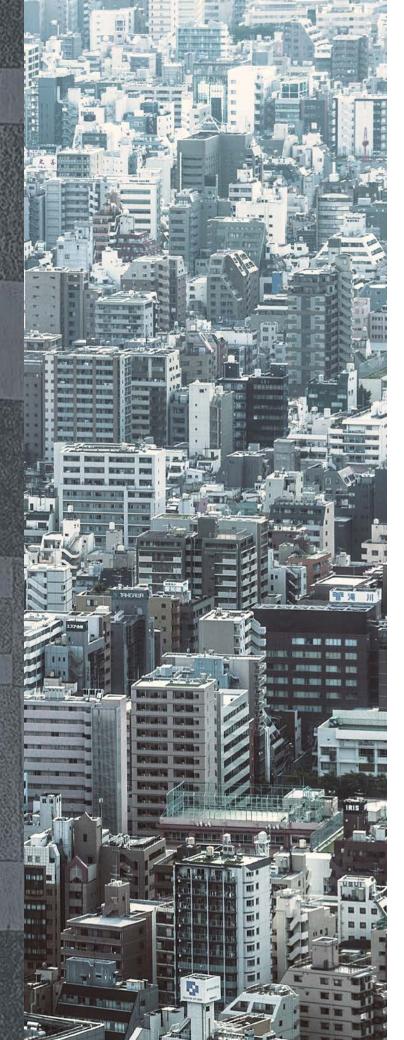
TEXT INA SOTIROVA PHOTOGRAPHY TYCHO MERIJN

FOR TRESPA TO KEEP ITS PLACE AS MARKET LEADER IN FAÇADE CLADDING, IT MUST CONTINUOUSLY INNOVATE. TO DO SO, OVER THE PAST YEAR, DESIGN EXPERT LUCAS STEVENS HAS BEEN BUSY DEVELOPING THE NEW TRESPA® METEON® FOCUS AND LUMEN METALLICS. TO BE UNVEILED AT THE 2017 BAU EXHIBIT IN MUNICH, GERMANY, THESE PRODUCTS FIND INSPIRATION IN LIGHT REFLECTIONS, COINCIDENTAL COMPOSITIONS AND THE MYSTERIOUS NATURE OF TRACES LEFT BEHIND.



"An abstract interpretation of a city scape, in which each building is individually designed and built, but the whole view gives a new sensation."

Lucas Stevens, Trespa Design Expert



TRESPA® METEON® FOCUS COINCIDENTAL COMPOSITIONS AND TRACES

THE TRESPA® METEON® PORTFOLIO ALREADY OFFERS HIGH-END HPL PANELS IN VIBRANT COLOURS AND NATURALLY LOOKING DECORS. A THIRD SET OF ABSTRACT VARIATION DESIGNS-LIKE METALLICS, LUMEN AND NOW LUMEN METALLICS- OFFER UNIQUE EFFECTS, TEXTURES AND FINISHES FOR OUTSTANDING FACADES. TWO SETS OF EXTRAORDINARY DESIGN, DEVELOPED UNDER THE NEW FOCUS COLLECTION, ARE THE LATEST ADDITION TO THE TRESPA® METEON® FAMILY.

"If you want to develop new high-end aesthetical looks for façades, you can draw your inspiration from anything," design expert Lucas Stevens says, "from culture to nature, from light to mathematical patterns." To extract and abstract new designs, ideas can be chased down in literature, art and science. Symbols, semantics, geometric or social patterns can serve as inspiration, as long as the final decors keep with Trespa's contemporary architectural design values: timelessness, material honesty, harmony with surroundings, minimalism and novelty. "The result sneeds to be engaging and inspiring," Stevens says.

With the development of the Trespa* Meteon[®] Focus collection, the Trespa Technology Centre team is now exploring this boundless creative space where history, culture, imagination and observation intertwine. The result is two unique sets of designs: Santiago and Brooklyn, each representing an abstract idea or concept.

SANTIAGO

Compositions, or the arrangement of objects in space, are often created intentionally by an artist or architect. Sometimes, however, they form coincidentally by means of natural phenomena or by the contribution of different people over time. That is how cities come to be. It is also the inspiration for the Santiago designs, which Stevens describes as "an abstract interpretation of a city scape, in which each building is individually designed and built, but the whole view gives a new sensation." The light reflection and contours of different buildings stacked against each other, in serendipitous ways, defined the shapes of the designs, Stevens explains.

BROOKLYN

The second set of Trespa® Meteon® Focus panels finds inspiration in the ephemeral nature of traces. Used in books and in movies as elements that evoke interest and suspense, traces are fascinating in that they only reveal part of the story. "They give hints of what happened somewhere at some point in time but still leave space for part of the event to be filled in by fantasy and our imagination," Stevens says. "In this range we have captured traces in the surface of the products, leaving the space for everyone to fill in part of the story for themselves."



INSPIRATION COMES FROM COINCIDENTAL COMPOSITIONS, TRACES AND REFLECTION.





CM05.21 Santiago Gris

CM05.04 CM09.51 Santiago Blanco Brookly Aluminium

CM09.03 Brooklyn

CM09.06 Brooklyr Bronze

C08.21 Brooklyr

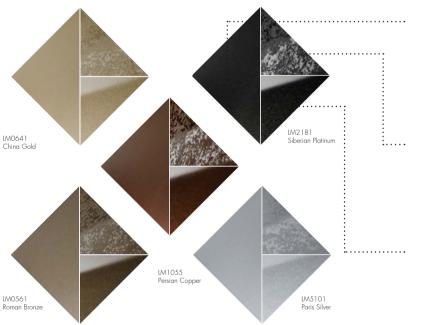
C08.03

Brooklyr Classic

C08.25 Brookly Anthracite

TRESPA® METEON® LUMEN METALLICS LIGHT REFLECTIONS

TRESPA® METEON® LUMEN ALLOWS ARCHITECTS TO PLAY WITH LIGHT REFLECTION ON FAÇADES. TO GIVE GREATER DESIGN FREEDOM, THE TRESPA® METEON® LUMEN COLLECTION IS EXPANDED WITH THE INTRODUCTION OF FIVE NEW METALLICS DECORS IN THREE DIFFERENT FINISHES: SILK-LIKE DIFFUSE, LIVELY OBLIQUE AND DEPTH-SENSE SPECULAR.



DIFFUSE

Strong matt finish and low light reflectivity. Texture and reflection have been removed to bring tranquillity to the façade.

OBLIQUE

Uneven matt-and-gloss surface that brings a natural weathered effect in combination with scattered light reflection.

SPECULAR

Liveliness with colours and gloss. Makes the façade interact with its surroundings through strong reflections.

With the enhanced Lumen offering, natural light can be creatively manipulated and introduced as a design element. Architects can play with the compositions of light reflection on the façade, either by mixing the three finishes of a single colour or by combining the available palette of colours and Metallics. The three finishes also allow to add movement, depth and tone to the buildings. A wide range of effects, from tranquillity to liveliness, from uniformity to irregularity, can be realized across sections or entire façades.



TO EXPERIENCE THE EFFECT OF THE NEW PRODUCTS, WE ADVISE TO ORDER SAMPLES AT **TRESPA.COM**



"This setting allows us to include in just one thermographic image the behaviour of a traditional façade next to one clad with Trespa® Meteon®."

Xavier Viola i González, director of Efcore and thermographer

TEXT CLARA MARTÍNEZ TURCO

A VALUABLE STUDY

THE UNIVERSITAT AUTÒNOMA DE BARCELONA'S DEPARTMENT OF CHEMISTRY BUILDINGS PROVIDE THE PERFECT SETTING FOR A THERMOGRAPHIC STUDY ON THERMAL COMFORT AND ENERGY EFFICIENCY PERFORMANCE COMPARING A VENTILATED FAÇADE WITH ONE MADE OF CONCRETE.



Hosted within the Department of Science complex, the Department of Chemistry occupies two interconnecting buildings in the Universitat Autònoma de Barcelona's Bellaterra campus. Built in the late 1960's, these two box-like buildings are among the oldest structures on the university grounds. While one has a painted concrete exterior, the other was renovated and displays a ventilated façade.

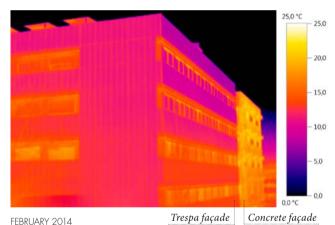
One of the buildings underwent a major refurbishment in 1992, as it needed to accommodate new laboratories and a high concentration of equipment. Because Spain already had in place its first norms on the thermal regulation of buildings, it was decided that a ventilated facade was the best solution to refurbish the building made of precast concrete. Trespa® Meteon® panels in Mid Grey were chosen as cladding.

More than 20 years later, the Department's facilities is providing the perfect setting for a thermographic study on thermal comfort, condensation and energy efficiency performance with and without a ventilated façade. "We have the phrase 'an image is worth a thousand words,' well this setting allows us to include in just one thermographic image the behaviour of a traditional façade next to one clad with Trespa® Meteon®," says Xavier Viola i González, director of Efcore, the Spanish firm in charge of the study.

THE TWO BUILDINGS IN WINTER AND SUMMER (SOURCE: EFCORE)



The two buildings of the Department of Chemistry at the UAB's Bellaterra campus. On the left is the renovated structure with Trespa[®] Meteon^{*}, to the right the one still in its original state.

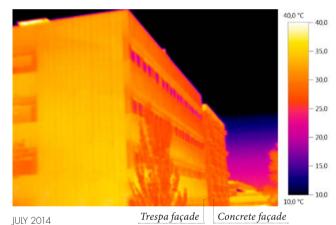


The Trespa[®] Meteon[®] surface (left) is at a similar temperature than the exterior (12°C), while the concrete surface (right) has a higher temperature.



Trespa façade Concrete façade

Left building was clad in 1992 with Trespa[®] Meteon[®] after an extensive renovation. The building on the right has its original 1960's concrete façade.



The Trespa[®] Meteon[®] surface (left) is at a higher temperature than the exterior (28°C), while the concrete surface (right) is similar.

LOOK-ALIKE BUILDINGS

Defined by a typical 1960's architectural style, the five-storey buildings were built with precast concrete sandwich wall panels with no insulation. They both use a central heating system during winter months. Apart from the façade, the two constructions have the same if not almost identical characteristics in terms of geographical orientation, interior conditions, use, height, occupancy, maintenance service, management and end users. These elements are the ones that could distort the results of a comparative study. Also, there were no adjacent nor nearby buildings that could influence the measurements.

"We couldn't have found better conditions to do the thermographic study, because all the characteristics were the same with the exception of the ventilated façade, which was the object of the study," explains Viola i González. After an initial analysis of the emissivity of the façade materials, which guaranteed the reliability of the images, Efcore took a series of thermal images in February 2014, and a second set in July of the same year. This allowed Viola i González and technical architect Josep Lluís Escobedo i Parés to analyse the behaviour of both buildings during winter and summer.

OPPOSITE RESULTS

According to the thermographic images, during summer months, the temperature of the concrete façade's exterior surface is very close to the outside temperature. The opposite happens during winter, where the concrete surface temperature is higher than the outside temperature. Without insulation, heat goes from indoor to outdoor instead of remaining inside. Additionally, there are notable temperature variations internally. These findings indicate "a greater heat transfer from the exterior to the interior, and an important energy loss through the concrete façade," reads the report. In turn, these losses and transfers resulted into higher energy costs to cool and heat the building, while providing greater discomfort to its users, who feel the temperature fluctuations.

The situation is quite different for the refurbished building. The temperature of Trespa* Meteon* surface tends to be higher during hotter months while it is very similar to the outside temperature during winter. No cold interiors were noted, and minimum energy losses from the interior to the exterior were reported. These results are linked to the existence of a ventilated façade system, which includes insulation and an air cavity that provides a continuous airflow that aids the removal of heat and moisture.

"The Trespa[®] Meteon[®] panels and the air cavity protect the insulation that, in turn, protects the rest of the envelope, improving the overall thermal performance," notes the independent study. Because the internal temperature is more even, the comfort is greater. In addition, less energy is needed to cool the building during summer or to heat it during the cold months. According to Efcore calculations, there is around a 22% of energy savings when compared to the energy consumption before renovation.

For the refurbishment of the Department of Chemistry, Trespa[®] Meteon[®] panels with a thickness of 8 mm were used. The ventilated façade has an air cavity of 30 mm and between 20 and 30 mm of insulation, which was compliant with then valid Spanish construction codes that had introduced an insulation of 20-25 mm minimum thickness.

"The ventilated façade of the Department of Chemistry was already ahead of the local requirements, as the insulation was installed on the exterior walls. This already minimized the thermal bridges," says Viola i González. "Obviously, had the insulation been between 80 and 100 mm, as its specified now, the energy savings and the reduction of CO_2 emissions would be higher."



About the Project

FIXING SYSTEM

TS150 VISIBLE (EXPOSED) FIXING WITH SCREWS ON A TIMBER SUB-FRAME

MARKET SEGMENT

EDUCATION

YEAR 1992

TRESPA® PRODUCT TRESPA® METEON®

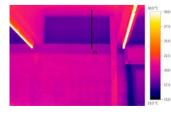
UNI COLOURS

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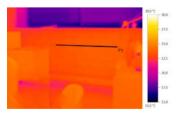
SATIN

"Because the internal temperature is more even, the comfort is greater."

THE BUILDINGS' INTERIOR (SOURCE: EFCORE)



ORIGINAL NON RENOVATED BUILDING Interior wall surfaces are cold. Performance varies greatly, with significant energy loss from the interior to the exterior.



BUILDING RENOVATED WITH TRESPA® Interior wall surfaces' temperature are similar to the ambient temperature.

'DE TWISTER' ELEMENTARY SCHOOL

MAKING SCHOOL FUN

A SCHOOL INSPIRED BY A TREEHOUSE, IN A CONVERTED 1960S CHURCH–ARCHITECTURE RARELY GETS MORE CREATIVE AND PLAYFUL THAN THIS. THE LIVELY EXTERIOR OF DE TWISTER ELEMENTARY SCHOOL IN HORST, THE NETHERLANDS, IS INSPIRED BY A TREE HOUSE. THE BUILDING'S COLOURFUL 'BRANCHES' ARE BUILT UP FROM THREE DIFFERENT SHADES OF GREEN THAT REST ON A VENTILATED FAÇADE CLAD IN MILANO GRIGIO. THE ARCHITECT'S AIM WAS TO MAKE SCHOOL MORE ATTRACTIVE TO KIDS: IT IS NO SURPRISE THEY LOVE THIS UNIQUE, FUN DESIGN.





YEAR 2015

Horst, The Netherlands



About the Project

ARCHITECT

VERHEIJEN SMEETS ARCHITECTEN INSTALLER JONGENEEL PROJECTEN FIXING SYSTEM

INVISIBLE (CONCEALED) FIXING SYSTEM WITH ADHESIVE

MARKET SEGMENT EDUCATION

TRESPA® PRODUCT TRESPA® METEON®

UNI COLOURS, WOOD DECORS



MATT, SATIN

The McAvoy Group NODULAR OCONSTRUCTION

VVITH TRESPA PURA NFC®



LOCATED IN DUNGANNON, UNITED KINGDOM, THE MCAVOY GROUP IS AN OFF-SITE CONSTRUCTION PROVIDER SPECIALISED IN MODULAR AND PANEL SYSTEM BUILDS. SINCE 2015, IT HAS BEEN WORKING WITH TRESPA PURA NFC® CLADDING ON SEVERAL SCHOOL PROJECTS ACROSS THE COUNTRY.

When The McAvoy Group was chosen to build the new Rise SEN School in Feltham, United Kingdom, the project planning already included detailed requirements on the materials that had to be used to clad the façade. "The project had been passed by planning with a 'timber effect' composite board," says Keith Anderson, McAvoy's Contracts Buyer.

The cladding needed to be easy to maintain and to install, be available in various colours and to have a high impact resistance and colour stability. It also needed to have a fast delivery programme. "Trespa Pura NFC[®] was one of the materials that was able to meet all the requirements. With Trespa, we had the expectation that this product would come with an excellent service and client management," explains Anderson.

AN IDEAL PAIRING

As with other projects, The McAvoy Group was able to reduce the construction lead times for the Rise SEN School by using a modular build. The company considers this method to be the future of construction.





THE SALISBURY SIXTH FORM COLLEGE (TOP) AND THE GORESBROOK SCHOOL (BOTTOM).



"With its ease of installation and flexibility, we are able to choose to fit the cladding within factory conditions when applicable, or we can install on site if required."

Keith Anderson, McAvoy's Contracts Buyer

"With the UK government's 2025 vision for construction sector, the strategy is 33% lower costs, 50% faster delivery timescales, 50% lower emissions and 50% improvement in exports. To achieve this, modular construction will be at the forefront of this change," says Anderson.

For McAvoy, Trespa Pura NFC[®] proved an "excellent fit" for this modern method of construction. "With its ease of installation and flexibility, we are able to choose to fit the cladding within factory conditions when applicable, or we can install on site if required," adds Anderson. By working jointly with Trespa, the Dungannonbased company managed to meet the tight timescales from date of order to deliver of the product.

The Rise SEN School was completed in April 2016. Since then, McAvoy has finished three other modular school buildings clad with Trespa Pura NFC*. They are located in Salisbury, Dagenham and Lynch Hill, respectively. A third school in Lynch Hill will be finished early January 2017.

NEW METEON® LUMEN METALLICS

LM2181 Siberian Platinum

Available in Diffuse, Oblique and Specular finish.

TO EXPERIENCE THE EFFECT OF THE LUMEN FINISHES, WE ADVISE TO ORDER SAMPLES.

<text>

.....

IN THE SOUTHERN FRENCH TOWN OF LYON, THE THREE HIKARI BUILDINGS HAVE BECOME EUROPE'S FIRST ENERGY POSITIVE MIXED-USE COMMUNITY. AMONG THEM, THE MINAMI AND NISHI BUILDINGS ARE CLAD WITH TRESPA® METEON® PANELS.



Michel Le Faou, Lyon's deputy to urbanism

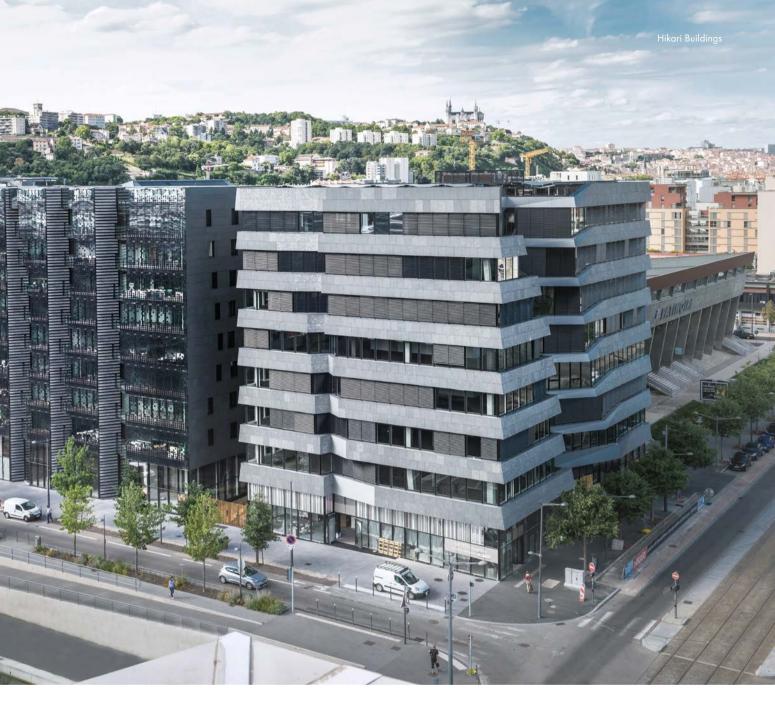


Benoit Bardet, head of communications, Confluence Project



Christophe Debouit, project coordinator for NEDO Europe

Imagine Tres



At the junction of the Rhône and the Saône, in the southern French town of Lyon, the Confluence neighbourhood is buzzing with activity. Cranes are everywhere, while tourists walk slowly between its newest buildings and their ultra-modern architecture. Since 2006, the neighbourhood has been the centre of a giant experimentation led by the Grand Lyon urban community: "Lyon Smart City."

"By 2050, 70% of the world's population will live in towns," explains Michel Le Faou, Lyon's deputy in charge of urbanism. "This concentration will have strong repercussions on housing, the environment, and well-being... We need to balance urban development with sustainable development. Thus, the smart city tries to balance social, cultural, economical and environmental challenges through an informed management of natural resources, while taking care of the city's own needs."

To this day, Lyon Smart City encompasses 40 large-scale experimental projects and more than 100 multiple public and private partnerships touching various domains such as the new mobilities, digital services, energy management, sustainable development and the support of innovation. "Among the first projects was for instance the 'Vélo'v', France's first large bike-share service, in 2006," explains Le Faou. Followed by a car-sharing service and its electrical car counterpart, and more recently by an energy management system allowing the inhabitants to visualise and control their energy consumption live on tablets.

Yet, the most visible of the spectacular recent development in Lyon is without a doubt the Confluence neighbourhood. At the beginning of the 2000's, the Grand Lyon urban community took charge of this former no man's land Imagine Trespa

Lyon, France



About the Project

ARCHITECT KENGO KUMA & ASSOCIATES INSTALLER

SMAC

FIXING SYSTEM

TS200 INVISIBLE (CONCEALED) FIXING WITH BRACKETS ON RAILS

MARKET SEGMENT

COMMERCIAL OFFICES / MULTI HOUSING, APARTMENTS

YEAR 2015

TRESPA® PRODUCT

TRESPA® METEON®

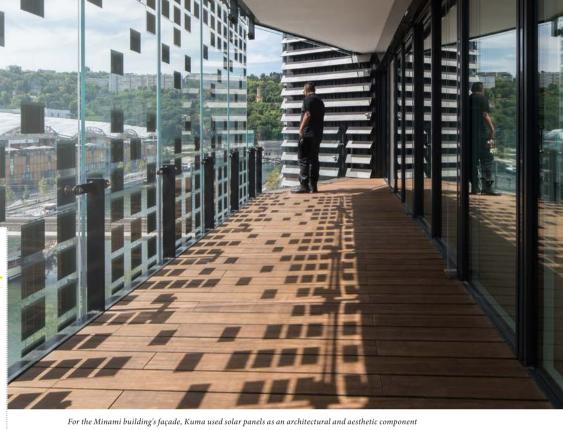




FINISH MATT

POSITIVE ENERGY BUILDING

A POSITIVE ENERGY BUILDING, LIKE HIKARI, IS A BUILDING THAT ANNUALLY PRODUCES MORE ENERGY THAN IT ACTUALLY CONSUMES IN TERMS OF HEATING, COOLING, LIGHTING AND VENTILATION.



with the aim of turning it into a model neighbourhood of experiment. Old buildings would be renovated in order to maintain the neighbourhood's spirit, while the abandoned lands would host the construction of experimental buildings befitting the highest environmental and energetic standards.

An adventure made possible by a partnership between the Grand Lyon and the Japanese NEDO (New Energy and Industrial Technology Development Organisation) and the technologies developed by Toshiba, which aims to test *in situ* the city of the future. In 2010, Lyon Confluence was recognised as France's first sustainable neighbourhood by receiving a WWF label.

In the Confluence House ("Maison de la Confluence"), in front of the model of the neighbourhood under construction, Benoit Bardet, head of communications for the project, is enthusiastic. "The Confluence neighbourhood was created 200 years ago, this is a site which was under water until then, and which has been manually constructed. It has been an industrial area for 150 years, but it was left as a brownfield site with the decline in industrial activities at the end of the 20th century. This is when the political project emerged to double the surface of Lyon's city centre," he explains.

Lyon's urban project was ambitious. "From the beginning, the idea was to build a mixed neighbourhood following the principles of sustainable development, and especially in the field of energy management. We set two goals: to divide by two the buildings' energy consumption compared to the standards of the time, and to use 80% of renewable energy," underlines Bardet. "It was a real challenge, and we needed real skills and convictions to impose it to developers," he says.

THE PASSAGE OF LIGHT

A few hundred meters away, on the side on the Nautic Square and directly connected to the Saône and heart of the recently revived neighbourhood, stand the Hikari buildings: Higashi (Japanese for "East"),





Trespa^{*} panels were used on the top of the Nishi building

Minami ("South") and Nishi ("West"), three elegant and aerial modern buildings and Europe's first energy positive mixeduse community. A ground-breaking project, the fruit of a partnership between Bouygues Immobilier and the world renowned Japanese architect Kengo Kuma, which encompasses 40 houses, over 8000 square metres of offices and 1000 square metres of businesses at the ground level.

The three Hikari buildings-which means "light" in Japanese-bear their name well as they benefit from an ingenious system of light management. Kuma introduced large cut-outs to the square-shaped buildings, allowing the penetration of natural light deep into the buildings and in the central courtyard-garden. "We designed three buildings for offices, housing, and commercial facilities as one 'flow of light.' Cut-outs made in the buildings, slight staggers between floors, glazed screens with built-in solar power panels, all subtly control light that helps connect nature and humans", explains Kengo Kuma & Associates in an email.

Kuma's architecture constantly refers to nature. In the Hikari project, this is enhanced by his use of local natural materials, such as stone facing and wood. The Minami's building façade also uses the aesthetic of solar panels while the overall organic aesthetic is enhanced by the use of Trespa[®] Meteon[®] Wood Decors Loft Grey and Nordic Black on its northern and southern façades. Trespa[®] panels were also used on the top of the Nishi building. For installer Rémi Fiat, site supervisor at SMAC, "the wooden decor and grey tones of Trespa[®] Meteon[®] panels harmonise very well with the stone facing."



The Hikari buildings, from left to right: Nishi (Japanese for "West"), Minami ("South") and Higashi ("East")



The Minami building shares a communal back area with Nishi and Higashi



"This is definitively the path to the future."

Christophe Debouit, project coordinator for NEDO Europe

Hikari's technical achievement was made possible by the combined use of three renewable energies: photovoltaic panels covering the entire rooftops of the Higashi and Nishi buildings as well as the Minami façade, a geothermal system coupled with an absorption pump for cooling, and a colza-oil cogeneration plant. Additionally, innovative technologies are used to tightly control the energy consumption via the automatisation of certain functions of the building. For instance, light and heating are controlled by presence detectors and the housing units are equipped by tablets to visualise and control individual consumption. Finally, a system of batteries and a shared energy system network allows the stockage and the mutualisation of the energy production so when one of the three buildings produces more energy than it

needs, the surplus is sent to the two other ones. As a result, the Hikari buildings produce more energy than they consume.

"The objective of the Hikari project was to prove that we could realise a multipurpose positive energy community. So far, there have been only such buildings for single use, such as office buildings. With Hikari, we wanted to see if we could adapt it to buildings which would combine housing, businesses and offices, that is with different energetic behaviour," explains Christophe Debouit, project coordinator for NEDO Europe. "Hikari opens the door to the extension of this technology; this is definitively the path to the future." •



Details of the Nishi (top) and Higashi buildings (bottom)

NEW METEON® FOCUS **CM09.06** Brooklyn Bronze

NEW METEON® FOCUS

CM09.51 Brooklyn Aluminium

NEW METEON® FOCUS

CM09.03 Brooklyn Steel

Available in Diffuse and Specular finish.

TO EXPERIENCE THE EFFECT OF THE FOCUS FINISHES, WE ADVISE TO ORDER SAMPLES.

35

STRENGTHENING TRESPA'S RELIABILITY OF SUPPLY

TRESPA'S 98% RELIABILITY OF SUPPLY WITHIN CONFIRMED LEAD TIMES ARE MADE POSSIBLE BY DEPARTMENTS WORKING CLOSELY TOGETHER. PLANNING, PRESSES AND PLANNING WAREHOUSE & SHIPPING HAVE FOCUSED ON COOPERATION, CONSISTENCY AND ONGOING IMPROVEMENT, RESULTING IN OVERALL EXCELLENCE. HOW HAVE THEY REACHED THIS? PLANNER HANS GROELS, PRODUCTION OPERATOR BART PEETERS AND PLANNER WAREHOUSE & SHIPPING EMIEL OP HEIJ SHARE THEIR INSIGHTS, BEST PRACTICES AND IDEAS GOING FORWARDS.



HANS GROELS

"Our seven planners coordinate activities

across traffic management, purchasing, production and other departments. We ensure each order reaches its destination in time. In case there's any risk of materials being late, we adapt our planning. If suppliers experience difficulties or clients place emergency orders, we immediately work out how to tackle this and manage expectations."

"An effective approach for timely deliveries."

"A 'helicopter view' is vital, as are good communications skills and diplomacy. Occasionally, you have to make instant decisions and it's vital everyone understands why. In the ten years I've been here, we've paid a great deal of attention in communicating with other departments, so we know exactly which challenges they face and how we can help them with our expertise. We're also always looking for ways of further optimizing processes."



BART PEETERS PRODUCTION OPERATOR

"We take care of the very last stage of production,

including everything from work permits to machine repairs, from researching quality issues to supporting capacity planning. We provide safety training and tours for new operators. We carry out full weekly inspections, checking everything from chemical storage to the availability of earplugs. Anticipating, an analytical approach and knowledge of different aspects of manufacturing process are vital. Safety and common sense are paramount."

"Safety above all."

"My role is to supervise, make sure everything runs smoothly, and solve any issues. I started in 2005 as an operator, moving up through the ladder. The focus used to be on production volume, but in recent years, more attention is paid to automation and process efficiency."





EMIEL OP HEIJ PLANNER WAREHOUSE & SHIPPING

"We examine warehouse planning and transport

schedules and prepare products for transport. This takes place in shifts, from early on until late at night. Every morning, we take care of urgent deliveries prepared the previous night. Then, regular freights are prepared, checked for completeness and loaded according to order of delivery. Arrivals are carefully planned and loading is done in blocks of four hours. We can load four or five trucks in an hour and a half. Thanks to our location system and constant re-scanning, we know the exact position of each of the 400-500 pallets that go through our warehouse each day."

"No two orders are the same!"

"Quality today means more than excellent products. It includes every step on the route to the client, including packaging, providing information and the final handover. Working closely across departments and with long-standing partners definitely helps." • TEXT CHRISTINA REED PHOTOGRAPHY THEA VAN DEN HEUVEL / DAPH

SUBDUE THE SUN

NESTLED IN A RIVER VALLEY OF WESTERN LUXEMBOURG, THE HOME AND OFFICE OF ARCHITECT BERNARD DE BARSY IS ILLUMINATED WITH TRESPA® METEON® LUMEN AND TRESPA PURA NFC® FAÇADE.



Boulaide, Luxembourg



About the Project

ARCHITECT

AB+, BERNARD DE BARSY MARKET SEGMENT

INDIVIDUAL HOUSING / COMMERCIAL OFFICES

YEAR 2016

TRESPA® PRODUCT

TRESPA® METEON® LUMEN TRESPA PURA NFC®



FINISH DIFFUSE (L9000), MATT

When architect Bernard de Barsy, founder of ab+, wanted to build his home and office in the small village of Boulaide, Luxembourg, he was particularly taken by the nature of the land and panoramic views. Indeed, nestled in a river valley just east of Belgium, this northern region of the Grand Duchy, part of what's called the Oesling, offers beautiful fall colours among its forested hills. In the village, most of the houses are two storeys made of stone and painted in creamy shades with white or brown trim, or more boldly in orange or blue. Popping up on some of the rooftops these days are solar panels-a reflection of the townsfolk's sunny optimism as well as their support for renewable and sustainable energy.

Just outside of the village, several wooden farm houses dot the landscape. And it is here, on road that not even Google maps has toured, where de Barsy made his home. "I constructed my house on the edge of town to make the most of the fantastic countryside scenery," he says. In fact, the farmers use of wood façades provided the architect with the inspiration for his design. "I wanted a contemporary interpretation of these wooden façades to emphasize the volume of the central part of my house."

But he also required energy efficiency in order to build a home that met the standards of a passive house with a lowcarbon footprint. The intrinsic qualities of Trespa[®] Meteon[®] achieved this goal, but what really sold the architect on purchasing Trespa[®] panels for his façade was their signature colour stability and the varied patterns he could create using the different finishes.

"What I like most about my home is, first the relationship between my house and nature," he says, adding as well how it communicates with the world around it and "the dialogue between interior and exterior spaces." But also importantly, was "the choice of materials."







"What I like most about my home is, first the relationship between my house and nature."

Bernard de Barsy, architect and founder of ab+

Normally over time, first-year wooden façades fade—along with their nuances. "I wanted to keep those nuances." The only problem was he needed panelling 20 cm wide. "When I contacted Trespa in 2014 to solve the technical problem of the boards, I learned that Trespa was studying a board interlocking system. In January 2015, Trespa presented in Munich its Trespa Pura NFC^{*} system. The Pura sidings fit my needs."

All he had to do next was determine the colours, but he had particular tonal variations in mind none of which fell within the six colours available in the Trespa Pura NFC* range at the time. "I needed a clear tone, medium and dark. I opted for the Trespa* Meteon* NW24 Cedar Greyed, NW25 Hesbania and NW28 Halmstad." Then in June 2015, Trespa produced the planks in these three desired colours. "The NW in particular provides a unique wood decor," he says.





Once de Barsy had the primary façade defined, "I needed another Trespa texture for the rest of the building as well as for the top floor," he explains. "I envisioned a black colour. What better to contrast with Wood Decors?" Thankfully, in 2016, "Trespa introduced me to a new range: Trespa[®] Meteon[®] Lumen with Diffuse finish. This product has the distinction of having no reflection." After a test, de Barsy chose the Diffuse Lumen Black Metropolis for the rest of the building.

"Once landed next to the Trespa Pura NFC^{*} façade, the Lumen redefined the appearance of three shades of Pura. The choice was not easy, no reference existed at the time I was making the order. The three Trespa Pura NFC^{*} and Trespa^{*} Meteon^{*} Lumen were the first of their kind to be used in the world."

Ultimately, for the 1,000-square-meter space, de Barsy covered it with almost 800 square meters of Trespa[®] façade in addition to 250 square meters of windows.

"I have achieved and created the façade that I wanted for my house," he says. "An important aspect for me was the use of façade materials that were able to highlight my architecture without monopolizing my architecture. Indeed, the front of my house must affirm the interior architecture, the façades must remain a result and not a goal in-and-of itself." For the rest of the house, he used rough concrete stripping; varnished raw steel, wood and glass for the stairs; black or light crude timber for the floors as well as polished concrete and anthracite-coloured Mosa tiles.

One of the best moments to catch the overall effect of de Barsy's stunning home is during the golden hour of sunset. "The Diffuse Lumen Black Metropolis has a special effect in the sun. The surface seems subdued, there is no reflection of the sun nor any glossy-like feature. This is particularly hard to describe, you have to see it in real life. When we took pictures of the façade, we felt that the photos looked like 3-D simulations and not real photos. This is really special."

And while he is not looking to sell his house, he would be up for building another one just like it for somebody else. •

NEW METEON® LUMEN METALLICS

LM1055 Persian Copper

Available in Diffuse, Oblique and Specular finish.

TO EXPERIENCE THE EFFECT OF THE LUMEN FINISHES, WE ADVISE TO ORDER SAMPLES. MICHIGAN STATE UNIVERSITY'S BRODY HALL

A VISUAL FOCAL POINT

COMMONLY REFERRED AS "THE GROTTO," THIS SEMI-ELLIPTICAL STRUCTURE IS THE FOCAL POINT OF BRODY HALL, THE LARGEST NON-MILITARY CAFETERIA IN THE U.S. ITS EYE-CATCHING METALLICS COPPER RED FAÇADE VISUALLY ENGAGES THE BUILDING'S INTERIOR WITH THE OUTDOOR GARDEN AND PATIO. CONSIDERED ONE OF THE BEST MEETING PLACES ON CAMPUS, IT HOSTS A VERSATILE DINING AND STUDY LOUNGE AREA.









East Lansing, MI, United States



About the Project

ARCHITECT

PROGRESSIVE AE (PREVIOUSLY DESIGN PLUS, INC.)

FABRICATOR

UNIVERSE CORPORATION FIXING SYSTEM TS110 VISIBLE (EXPOSED)

FIXING WITH SCREWS ON AN ALUMINIUM SUB-FRAME

MARKET SEGMENT

EDUCATION YEAR

2011

TRESPA® PRODUCT

TRESPA® METEON® UNI COLOURS, METALLICS



Trespa Pura <u>NFC</u>®

Westkapelle, The Netherlands

0

About the Project

ARCHITECT

ADRIAAN VERHULST CONTRACTOR BOUWBEDRIJF ZEELAND MARKET SEGMENT INDIVIDUAL HOUSING YEAR 2016

TRESPA® PRODUCT TRESPA PURA NFC®

TEXT JOHN EDWARDS PHOTOGRAPHY JELMER DE HAAS

DUNES

A UNIQUE

IN THE DUTCH

HOLIDAY HOME



FRANS HOFHUIS ENVISAGED A MODERN, DURABLE HOLIDAY HOME THAT WOULD BLEND IN PERFECTLY WITH THE SAND DUNES ALL AROUND IT. WITH TRESPA PURA NFC® CLASSIC OAK, HIS DREAM WAS REALISED.

"We've been visiting the Dutch seaside town of Westkapelle since the late 1970s," says Frans Hofhuis. "I bought an apartment here, and later invested in a holiday home, but I'd always wanted to design and build something myself. My wife and I saw a vacant lot some time ago and decided it was the perfect spot to build our project. A unique opportunity, as the lot was the very last piece of ground for sale in the area. Our holiday house turned out exactly as we wanted. It's truly striking; people frequently stop outside our gate and tell us how much they like it!"

Frans and his wife Jonna Zellenrath had a number of specific ideas and asked architect Adriaan Verhulst to work on the design. "We wanted a modernlooking, energy-efficient, spacious home with large floor-to-ceiling windows and sliding doors," says Zellenrath. "We also wanted the house to look perfectly at home amongst the surrounding dunes, woodland and sand. Other homes around here use lots of natural materials such as wood, and we wanted to match that, too."

ATTENTION TO EVERY DETAIL

Diederik Wagenaar of building firm Bouwbedrijf Zeeland took care of calculations and construction based on the architect's designs. "We build several holiday homes each year, but this one was very special," says Wagenaar. While holiday homes are often intended for rental, this was not the case. The owners intended to spend a great deal of time in the seaside. "Everything had to be perfectly aligned to their vision. Frans is a photographer with a keen eye, and pays attention to every detail. This holiday home has turned out nicer than many 'regular' homes. In fact, people have called me and asked whether they could get an exact copy." "I saw Trespa Pura NFC[®] at a trade fair in Utrecht and immediately knew: Yes, this is just what we're looking for!" explains Verhulst. "I really liked the wood designs and the fact that the material could be applied in a very precise way for a seamless look. I did look at some alternatives, but simply didn't have the same 'premium' feel." From the outset, he was looking for a natural, wood-inspired finish that would not look out of place in its surroundings and which would the home's modernist design. "That's exactly what Trespa Pura NFC* offered us. Once I saw the finished building, I remember thinking: This one has turned out exactly as I wanted!"

Constructor Wagenaar agrees. "This solution was the perfect, more durable alternative to using wood. It also turned



This one has turned out exactly as I wanted!"

Adriaan Verhulst, architect

PREMIUM FEEL

Being close to the sea can be pretty tough on buildings. The air is moist and salty and contains fine sand that can gradually erode the surface of buildings. Once a wooden panel is tarnished, there is nothing you can do to fix it. But architect Adriaan Verhulst was convinced that Trespa Pura NFC^{*} would look just as good as wood but also over time. out to be easy to work with and it just looks right. I wouldn't hesitate to use this material again in future projects." -

Trespa Pura $\underline{\tt NFC^{\circ}}$ CREATIVE FREEDOM IN ALL AREAS



De Heesche Poort, Heesch, The Netherlands



Housing, Overloon, The Netherlands



130 Addison Road, Windsor, CT, United States



Housing, Santa Cruz, CA, United States



Housing, East Hampton, NY, United States



Bed & Breakfast, Roelofsarendsveen, The Netherlands

NEW METEON® LUMEN METALLICS

LM0561 Roman Bronze

Available in Diffuse, Oblique and Specular finish.

TO EXPERIENCE THE EFFECT OF THE LUMEN FINISHES, WE ADVISE TO ORDER SAMPLES. Öpfingen, Germany

About the Project

ARCHITECT HULLAK RANNOW ARCHITEKTEN INSTALLER GAPP GMBH HOLZBAU

FIXING SYSTEM TS700 VISIBLE (EXPOSED) FIXING WITH RIVETS ON A METAL SUB-FRAME

MARKET SEGMENT COMMERCIAL OFFICES YEAR

2015

TRESPA® PRODUCT TRESPA® METEON® NATURALS



FINISH MATT





GAPP GMBH HOLZBAU OFFICE BUILDING

FORWARD THINKING TRADITION

LIGHT, WOOD AND EARTHY TONES ARE THE THREE ELEMENTS THAT CHARACTERISED THE GAPP GMBH HOLZBAU OFFICE BUILDING. THE DESIGN IS FUTURISTIC, YET EMBODIES TRADITION AND CRAFTSMANSHIP. THE STRUCTURE IS MADE OF TIMBER, THE MATERIAL WITH WHICH THE FOUR-GENERATION FAMILY BUSINESS HAS BEEN WORKING FOR OVER A CENTURY. A CUSTOM-MADE SOLUTION WERE THERE ARE NO CORNERS, ONLY CURVES AND NATURAL LINES CARVED ON THE FAÇADE. THE EARTHY TONES ARE WARM AND INVITING. THE USE OF LIGHTING AND ITS EFFECT ON THE NATURALS HARDENED BROWN'S SURFACE GLOSS ELEMENTS ACCENTUATES THE COMPANY'S FORWARD THINKING STRATEGY.



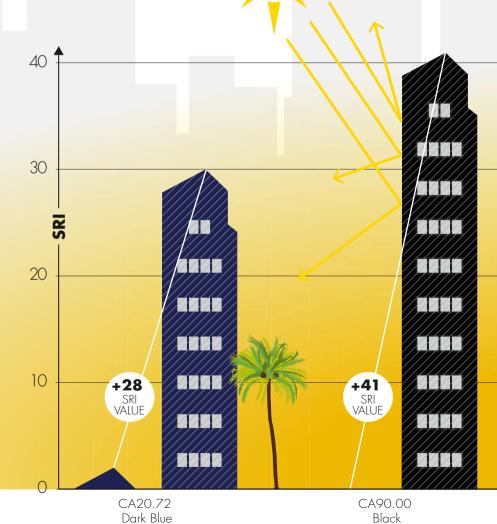
COMING IN 2017: TRESPA® METEON® WITH SOLAR REFLECTANCE TECHNOLOGY (SRT)

REFLECTING THE HEAT

TRESPA® METEON® WITH SOLAR REFLECTANCE TECHNOLOGY (SRT) ALLOWS ARCHITECTS TO DESIGN FUNCTIONAL AND AESTHETIC FAÇADES WITH DARK COLOUR COMBINATIONS WHILE ON HOT CLIMATES, WITHOUT COMPROMISING THE COOLING BENEFITS THAT COME WITH THE USE OF LIGHTER TONES.

Trespa[®] Meteon[®] SRT products have a lower absorptivity value. This means that the percentage of solar energy absorbed by their surface is much lower than the percentage absorbed by their equivalent decor in the regular Trespa[®] Meteon[®] offering. In some cases, the SRT panels absorb the same or less heat as lighter colours.

Additionally, they exhibit an increased Solar Reflectance Index (SRI), which measures the surface's ability to reflect solar heat and is commonly used in certifications like LEED and BREEAM. By subtlety reflecting the heat, the panels' surface has a lower temperature allowing less heat to enter the building.





CA25.81 Anthracite Grey

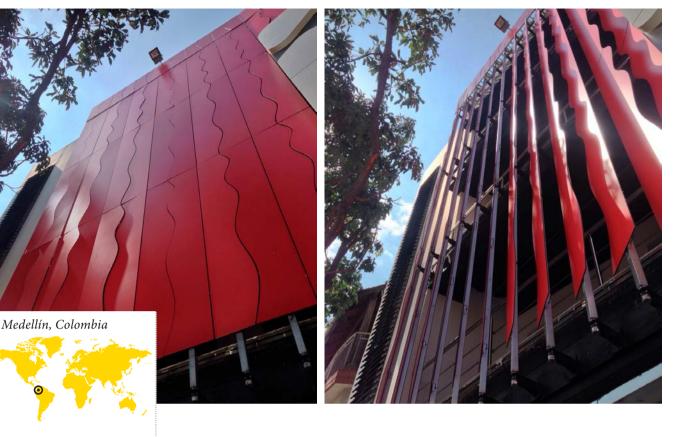
CA12.37 Carmine Red

SUNBLINDS

CONTROLING NATURAL UGHUS

WHEN THE MINISTRY OF LABOUR OFFICE IN MEDELLIN, COLOMBIA, CAME TO THE ARCHITECTS AT APICE CUBIERTAS Y FACHADAS MODULARES, THEY PRESENTED A TWO-PART PROBLEM: THEY NEEDED TO CONSTRUCT A FAÇADE TO OFFER PROTECTION AGAINST BLUNT OBJECTS HURLED BY VANDALS; AT THE SAME TIME, THEY DID NOT WANT TO BLOCK THE ONLY SOURCE OF NATURAL LIGHT FROM ENTERING INTO THE BUILDING.





About the Project

ARCHITECT

MIGUEL ANGEL CAÑÓN ARCHITECTURAL DESIGNER DIEGO HERNÁNDEZ INSTALLER AND SYSTEM DESIGNER

APICE CUBIERTAS Y FACHADAS MODULARES SAS

CONSTRUCTOR UNIÓN TEMPORAL DE TRABAJO 2013

MARKET SEGMENT PUBLIC BUILDING YEAR

2014

TRESPA® PRODUCT

TRESPA® METEON® UNI COLOURS



SATIN



WATCH THE VIDEO "With this project, the client was looking to create a zone of tolerance in Medellin," said Architect Eiwar Martínez, who was Technical Coordinator on the project. "It's a very dangerous zone in the city and whenever there are protests, they attack the state buildings."

The client challenged to design a façade with an element that would allow it to open and close. To achieve this result, the architectural designers decided to go with a mobile sunblind solution using Trespa* Meteon*.

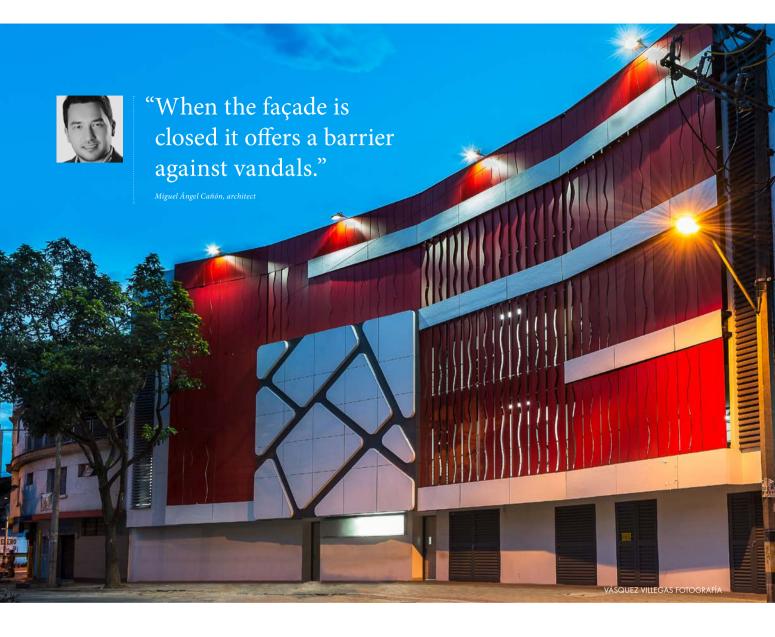
"When [the façade] was closed, it would offer a barrier against vandals," said Architect Miguel Ángel Cañón, who was General Manager on the project. "But when it was open, it would let light pass into the interior."

Cut into a smooth waveform, the façade is set upon a stainless steel structure that is controlled by a mechanical system. The double-sided Trespa[®] Meteon[®] material is Passion Red on the outside, while on the inside it is Pure White. "The red was chosen to match the ministry's branding colours, while the interior white was chosen because ultimately you needed to generate comfort and create a calm atmosphere inside the building," said Cañón.

The Colombian architects decided to go with Trespa[®] Meteon[®] material because it offered a single-colour covering, which would last for many years and is easily maintained. Particularly, the product can be easily cleaned from paint bombs that would leave stains on other material.

According to Cañón, the renovation gave the building, which was originally constructed more than 20 years ago, a much more interesting and memorable exterior appearance and modernized the architectural language. Furthermore, the employees in the building now have more control of the light, ventilation and colour of their environment, which has translated into lower energy consumption.

"In the end, the clients couldn't have been more content with the way the project turned out," said Eiwar Martínez. •



sunblinds A VARIETY OF CHOICES

THE NEED TO CONTROL OF DIRECT SUNLIGHT AND HEAT IS BECOMING INCREASINGLY RELEVANT IN THE DESIGN OF NEW AND REHABILITATED BUILDINGS. EFFECTIVE SOLAR PROTECTION SOLUTIONS MUST COMBINE EFFICIENCY, FUNCTIONALITY AND AESTHETICS. SUNBLINDS MADE WITH TRESPA® METEON® MEET THE CRITERIA, AND CAN BE INSTALLED WITH A VARIETY OF SYSTEMS.





MOBILE SYSTEMS

From an energy point of view, these are the most effective solutions as they change the slat orientation angle, depending on the position of the sun during the day. These motorised solutions can be customised on a case-by-case basis.



FIXED SYSTEMS

Following a detailed study of the building's location and orientation, together with the lighting needs, these systems are simple in terms of design and application, whilst maintaining an excellent summerwinter thermal balance.

VERTICAL SOLUTIONS

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These are the result of a new look applied to buildings, using the maximum length of the slat as an expression of verticality and height.

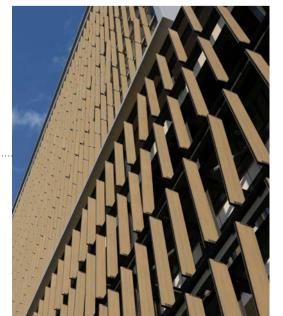


SUPERIMPOSED SOLUTIONS

These are designed with a dual aesthetic and energy comfort function, thus adding an ingenious touch during the design phase which affords the building a unique singularity.









HORIZONTAL SOLUTIONS

These are the most common and imitate traditional window blinds. Clearly related to more traditional aesthetic concepts, they are somewhat more effective in improving a building's energy efficiency. **NEW** METEON® FOCUS **CM05.25** Santiago Noche

NEW METEON® FOCUS

CM05.04 Santiago Blanco

NEW METEON® FOCUS

CM05.21 Santiago Gris

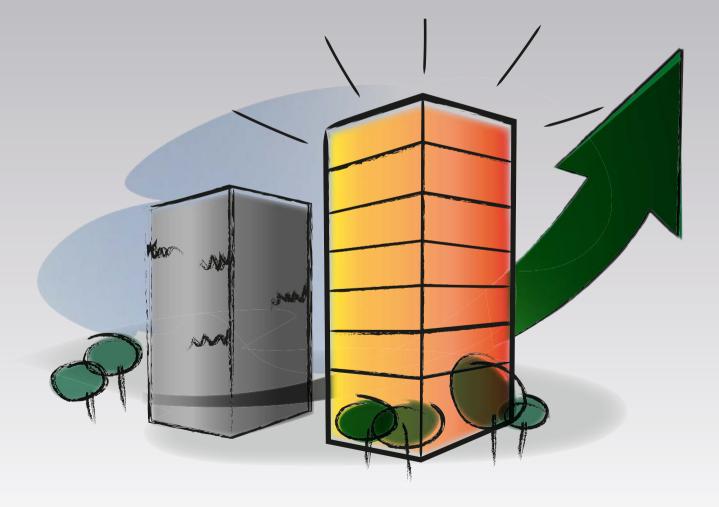
Available in Diffuse and Specular finish.

TO EXPERIENCE THE EFFECT OF THE FOCUS FINISHES, WE ADVISE TO ORDER SAMPLES.

TEXT BRENDA BARTA

GREATER EFFICIENCY, GREATER SALES VALUE

BURGOS AND ALICANTE, TWO SPANISH CITIES WHERE TWO HOME OWNERS' ASSOCIATIONS DECIDED TO REFURBISH THEIR PROPERTIES. THEY OPTED FOR QUALITY, DESIGN AND EFFICIENCY. AND THEY CAME OUT ON TOP. THE VALUE OF THEIR PROPERTIES HAS INCREASED, AS HAS THE ENERGY CLASSIFICATION OF THEIR HOMES. ONE OF THE KEYS? VENTILATED FAÇADES CLAD WITH TRESPA® METEON®.



APARTMENTS





"After the completion of the refurbishment, we started saving money immediately." Daniel Gómez, architect

The current trend is to refurbish in order to be more energy efficient. Property renovation is increasing in Spain with an annual investment of 25 billion euros. The fact that 50 percent of this amount is spent on façades, with a focus on improving energy efficiency, is no small matter.

This is the conclusion made by technical architect Daniel Gómez after refurbishing an apartment complexin Burgos, a city in northern Spain. After investing in the installation of ventilated façades clad with Trespa[®] Meteon[®], the property owners witnessed an increase in the value and energy efficiency of their homes.

The improvements are supported by independent valuation and assessment studies, as well as energy audits. The use of thermographic images showed the improvements made in both energy consumption and comfort, something which the residents are extremely happy about. "In an adverse climate like the one we have in this area, it was necessary to improve the building insulation. After the completion of the refurbishment, we started saving money immediately," explained Gómez.

For the group of independent architects leading this project, Trespa[®] Meteon[®] was the key: a wide range of colours, durability and 10-year product guarantee. "It was a better offer, with premium quality finishes. Easy to clean, high impact resistant... and fast installation. I can think of many advantages," adds Gómez. Burgos, Spain

VALUE STATE BEFORE € 82.500 VALUE STATE AFTER € 90.000 INVESTMENT PER APARTMENT € 2.672

INCREASE OF APARTMENT VALUE

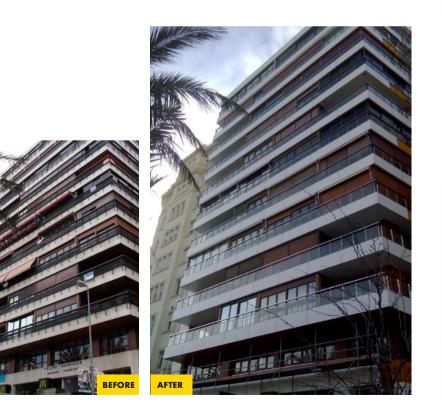
€ 7.500

^{case 2} VICTORIA BUILDING

Refurbishment also helps properties maintain their life expectancy. This was the case of the Victoria building, located in the Spanish coastal city of Alicante and which, after 50 years of existence, is halfway through its lifespan. The renovation of the façade considerably improved the appearance of the property, while increasing its value and improving its energy efficiency. Trespa[®] Meteon[®] was also chosen as cladding material for this project. The panels' large size allowed installers to adapt to the design needs in order to clad the original marble façade. With a moderate investment per homeowner and ease of installation for the technical team, the sales for these seafront properties were significantly increased in a highly homogeneous market. •

"Before the renovation, the building had the lowest possible emmissions and energy rating."

Property appraisals and energy assessments show that, before the renovation, the building had the lowest possible emissions and energy rating. After the refurbishment was completed, the heating and cooling values improved considerably.

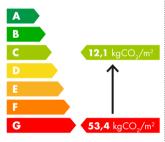


PRIMARY ENERGY CONSUMPTION



IN TERMS OF YEARLY ENERGY CONSUMPTION, THE BUILDING WENT FROM G TO D RATING.

CARBON DIOXIDE EMISSIONS



THE YEARLY CO2 EMISSIONS WERE ALSO REDUCED, IMPROVING THE BUILDING'S ENERGY RATING FROM G TO C.

Alicante, Spain

VALUE STATE BEFORE € 310.000 VALUE STATE AFTER € 365.000 INVESTMENT PER APARTMENT € 9.559

INCREASE OF APARTMENT VALUE € 55.000

Please note that the views and opinions expressed in this article are those of the authors and do not necessarily reflect the official policy or position of Trespa International B.V.

Culver City, CA, USA



About the Project

ARCHITECT HOK; CWA AIA, INC. INSTALLER

WALL PANEL SYSTEMS, INC. FIXING SYSTEM

TS110 VISIBLE (EXPOSED) FIXING WITH SCREWS ON AN ALUMINIUM SUB-FRAME

MARKET SEGMENT EDUCATION YEAR

2010

TRESPA® PRODUCT TRESPA® METEON® METALLICS

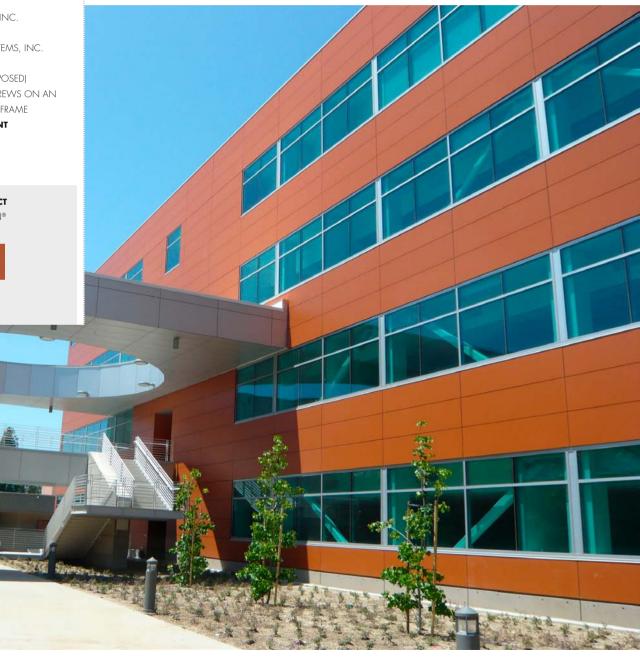


SATIN



"TS110 is ideal for many applications and for construction and building details."

Chuck McCoy, President of Wall Panel Systems



WEST LOS ANGELES COLLEGE, MATH AND SCIENCE BUILDING

CATCHING HOLLYVVOOD'S EYE

TRESPA® METEON®, INSTALLED WITH TS110 FIXING SYSTEM, HAS CREATED A ROBUST NEW LOOK FOR WEST LOS ANGELES COLLEGE IN CALIFORNIA, USA. THE MULTITUDE OF USES FOR TRESPA'S CLADDING PANELS LENT TO A UNIQUE DESIGN AND ARCHITECTURE FOR THE COLLEGE'S MATH AND SCIENCE COMPLEX. TEXT CAMILO SMITH

Aluminium Grey and Copper Red panels, fixed with TS110, were utilised to update the look and appeal of West Los Angeles College's Math and Science complex. The Metallics façade proved an excellent look for a building that is 88,000 square feet (8,175 m²) while the visible fixing system facilitated angled applications and providing a strong solution for a radius design using the Trespa[®] Meteon[®] panels.

Within the rolling hills of West Los Angeles, California, just a few miles south of movie studio spotlights, West Los Angeles College has been educating students since the late 1960s. Now, the college is increasing its reach as an institution of higher learning and technology with a \$38-million complex that anchors its newly created dental hygienist program.

To complete its state-of-the-art compound, which includes science labs and lecture halls, the college hired Wall Panel Systems to add a sleek, futuristic appeal to two buildings using the Trespa* Meteon* as cladding. The ventilated façade, installed with the TS110 visible fixing with screws on an aluminium sub-frame, features a combination of Metallics Aluminum Grey and Copper Red decors in Satin finish.

The building's revamped additions, completed in 2010, even caught Hollywood's eye. Several episodes of the hit television series "Grey's Anatomy" were filmed there in 2015 and 2016.

"The advantage of TS110 is you can use it on a screen wall, no façade, you could do it as a decorative solution," said Chuck McCoy, President of Wall Panel Systems. For McCoy, there was no other system that would have created that level of detail on the building. He has been using Trespa* products for close to 15 years for his projects; those jobs have included putting the special touches on public works structures such as airports and other transportation buildings.

McCoy said he has come to trust Trespa* Meteon* panels because of how they can installed. They are also his first choice because of the panels' sizes and thicknesses. =



NEW METEON® FOCUS **C08.25** Brooklyn Anthracite

NEW METEON® FOCUS C08.03 Brooklyn Classic

NEW METEON® FOCUS

C08.21 Brooklyn Luna

Available in Diffuse finish.

TO EXPERIENCE THE EFFECT OF THE FOCUS FINISHES, WE ADVISE TO ORDER SAMPLES.

A PERFECT MATCH FOR EVERY ARCHITECTURAL VISION

TRESPA® METEON®

HIGH-END AESTHETICS, LASTING QUALITY



Trespa^{*} Meteon^{*} is engineered for exterior covering such as façade cladding, balcony panelling, sunblinds, soffits and other demanding applications.

A broad selection of innovative finishes and striking effects, standard or bespoke colours, allow you to play with abstract variations, colours and natural appearances.

Trespa Pura <u>NFC</u>®

EASY INSTALLATION, DURABLE DESIGN



Trespa Pura NFC[®] provides a solution consisting of planks, fasteners and matching accessories.

Trespa Pura NFC* is a versatile solution for most cladding projects. Both lap and flush cladding can be installed either vertically or horizontally. The planks can be easily handled and are simple to cut. Trespa Pura NFC* is the perfect answer for both innovative and traditional ventilated façade projects. Easy to use: Pre-packed cladding available with a variety of matching components.

COLOURS AND FINISHES

TRESPA® METEON®

UNI COLOURS

A03.0.0

White

A04.0.1

Pearl Yellow

A04.0.2

Pale Yellow

A28.2.1	A22.3.1	A24.0.3	A23.0.4	A22.2.4	A22.2.1	A21.1.0	A05.0.0
Aquamarine	Ocean Grey	Polar Blue	Mineral Blue	Powder Blue	Bluish Grey	Winter Grey	Pure White
A32.2.1 Translucent Green	A24.4.1 Steel Blue	A22.1.6 Royal Blue	A22.4.4 Brilliant Blue	A21.5.4 Cobalt Blue	A22.6.2 Dark Denim	A20.2.3 Light Viola	A03.4.0 Silver Grey
A30.3.2	A35.4.0	A28.6.2	A26.5.4	A20.7.2	A21.7.0	A20.5.2	A21.5.1
Verdigris	Cactus Green	Mid Green	Pacific	Dark Blue	Steel Grey	Lavender Blue	Mid Grey
A37.2.3	A33.3.6	A32.7.2	A34.8.1	A90.0.0	A25.8.1	A05.5.0	A16.5.1
Spring Green	Brilliant Green	Dark Green	Forest Green	Black	Anthracite Grey	Quartz Grey	Mauve
A03.1.0 Pastel Grey	A37.0.8 Lime Green	A36.3.5 Turf Green	A08.8.1 Dark Brown	A14.7.2 Deep Red Brown	A11.8.0 Ceramic Greige	A06.7.1 Natural Greige	A06.5.1 Toscana Greige
A05.1.1	A41.0.6	A08.4.5	A09.6.4	A12.6.3	A12.3.7	A10.4.5	A10.6.1
Stone Beige	Mojito Green	Rusty Red	Mahogany Red	Wine Red	Carmine Red	Sienna Brown	Taupe
A04.0.0	A04.0.5	A06.3.5	A10.1.8	A12.1.8	A17.3.5	A11.4.4	A08.3.1
Cream White	Zinc Yellow	Ochre	Red Orange	Passion Red	Cyclam	English Red	Stone Grey
A05.1.0	A07.1.1	A05.1.2	A04.1.7	A05.1.4	A08.2.3	A10.3.4	A08,2.1
Papyrus White	Sand	Champagne	Gold Yellow	Sun Yellow	Salmon	Terra Cotta	Mid Beige
гаругоз wnite	Junu	манрадне		Joh Tenow	Sumon		Mid beige

PROJECT COLOURS

Trespa is happy to create panels in bespoke colours for your project. Almost anything is possible, just tell us what you need. For more information please contact your local Trespa representative.

TRESPA® METEON®

NATURALS

NA11 French Limestone	NA12 Natural Chalkstone	NA13 Silver Quartzite	NA14 Weathered Basalt	NA15 Indian Terra Cotta	NEW NA16 Belgian Bluestone	NEW NA17 Natural Graphite	
NEW NM08 Crafted White.	NM02 Forged Alloy	NM06 Tempered Grey	NM07 Casted Grey	NM03 Corroded Green	NM04 Sintered Alloy	NM05 Hardened Brown	NM01 Rusted Brown

TO EXPERIENCE THE METALLIC EFFECT IN THE NM PRODUCTS, WE ADVISE TO ORDER A SAMPLE.

WOOD DECORS



FINISHES

		and the second se	A CONTRACTOR	
SATIN MATT ROCK	MATT-ROCK	DIFFUSE	OBLIQUE	SPECULAR

NOTE TRESPA® METEON® NATURALS, WOOD DECORS, METALLICS, FOCUS, LUMEN DIFFUSE AND LUMEN OBLIQUE FEATURE A DIRECTIONAL COLOURED SURFACE. THE GRAIN OF THE METEON® WOOD DECORS RUNS THE LENGHT DIRECTION OF THE PANEL.

TRESPA® METEON®

METALLICS

M51.0.1	M04.4.1	M05.5.1	M06.4.1	M40.4.3	M51.0.2	
Aluminium Grey	Titanium Silver	Titanium Bronze	Amber	Mustard Yellow	Urban Grey	
M21.3.4 Azurite Blue	M53.0.2 Copper Yellow	M53.0.1 Copper Red	NEW M10.5.5 Deep Copper	NEW M05.6.1 Urban Brown	M35.7.1 Malachite Green	M21.8.1 Graphite Grey

TO EXPERIENCE THE METALLIC EFFECT WE ADVISE TO ORDER A SAMPLE.

NEW FOCUS



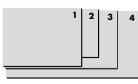
TO EXPERIENCE THE EFFECT OF THE FOCUS FINISHES, WE ADVISE TO ORDER A SAMPLE.

NEW LUMEN



TO EXPERIENCE THE EFFECT OF THE LUMEN FINISHES, WE ADVISE TO ORDER SAMPLES.

SIZES





- **2** 3050 \times 1530 mm (\approx 120 \times 60 inch)
- **3** $3650 \times 1860 \text{ mm} (\approx 143 \times 73 \text{ inch})$
- **4** 4270 x 2130 mm (\approx 168 x 83 inch)

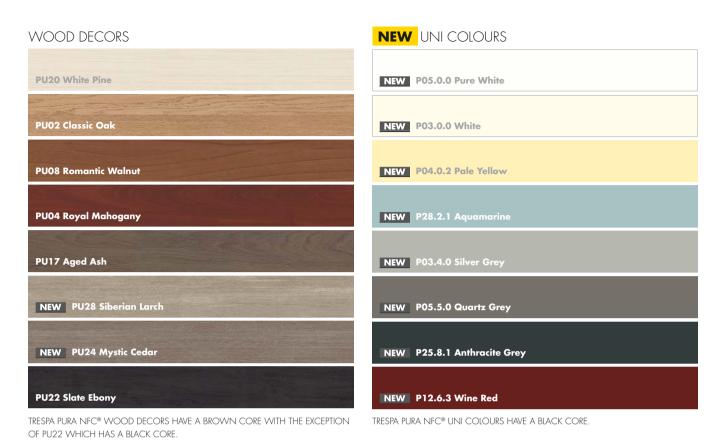
THICKNESSES



PLEASE KNOW THAT NOT ALL PRODUCT-FINISH COMBINATIONS ARE POSSIBLE. FOR AVAILABLE SHEET SIZES, THICKNESSES AND FINISHES IN YOUR COUNTRY, PLEASE CHECK **TRESPA.INFO** FOR THE DETAILED AND UP TO DATE DELIVERY PROGRAMME AND MATERIAL PROPERTY DATASHEET. ALTERNATIVELY YOU CAN USE THE PRODUCT SELECTOR ON **TRESPA.COM** (AFTER CHOOSING THE COUNTRY WHERE THE PROJECT IS LOCATED).

ORDER SAMPLES AT TRESPA.COM

Trespa Pura <u>NFC</u>®



PROJECT COLOURS

In need of different Uni Colours or Wood Decors? Trespa Pura NFC^{*} with black core is available in a wide range of standard Trespa^{*} Uni Colours and Wood Decors. For more information, please contact your local Trespa representative.

FINISHES



SIZES

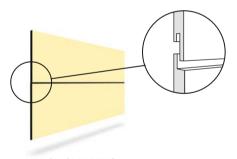


► 8 mm

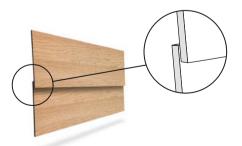
1 3050 x 186 mm (FLUSH)

2 3050 x 187 mm (LAP)

NOTE TRESPA PURA NFC® IS NOT AVAILABLE IN ALL COUNTRIES. PLEASE CONTACT YOUR LOCAL TRESPA SALES REPRESENTATIVE FOR MORE INFORMATION.



FLUSH CLADDING A FLAT, FLUSH SURFACE IS EASILY ACHIEVED BY MOUNTING TRESPA PURA NFC® CLADDING SIDE BY SIDE, HORIZONTALLY OR VERTICALLY.



LAP CLADDING LAP CLADDING IS THE TRADITIONAL WAY OF APPLYING PLANKS TO A WALL.

ORDER SAMPLES AT PURA.TRESPA.COM

Colophon

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MEET, IMAGINE, EXPERIENCE

The Trespa Design Centres offer a unique environment to showcase design-related programming. Available to the design community and visitors, the spaces encourage meeting, learning and networking —they are centres to inspire new solutions and interactions in design.

Trespa invites architects, contractors, students and others interested in design innovation to experience a mixture of formal and informal opportunities—whether to have a coffee and take a look around, to discuss the ins and outs of material possibilities, or for more formal consultations about specific Trespa[®] products at any stage in the design process.



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TRESPA

Think Trespa

NEW TRESPA® METEON® LUMEN METALLICS

DISCOVER ALL OUR NEW DESIGN COLLECTIONS INSIDE



