



ADRIANA SPAZZOLI Realtà Mapei International's Editor-in-Chief

REASONS TO BE OPTIMISTIC

THE DETERMINATION TO KEEP ON GOING DESPITE ALL THE DIFFICULTIES

Dear readers,

2019 has got off to a great start. This is not supposed to be a joke as some of you might think, bearing in mind all the political uncertainty and deprivations we are having to deal with in some countries at the moment. In any case, we are continuing to do our very best to make the most of a tricky situation relying on that something extra we have to offer: the determination to keep going and try and turn things around by focusing on quality. This issue of *Realtà Mapei International* is a small but significant example of this.

The magazine opens with an article on the new exhibition at La Scala Museum on the 240-year history of this famous theatre. The exhibition, sponsored by Mapei, hosts a section focusing on more recent work carried out by the architect Mario Botta and his project to construct a new tower behind the current stage tower. An interview with Mr Botta tells us more about this extension project.

Plenty of space is devoted to Mapei systems and products for the food industry with an interview with a famous Italian chef, a brief report on the current situation of the global food industry, and a description of several projects that Mapei contributed to complete: restau-

rants, kitchens, food factories, and the dining area of a cruise ship.

The current situation in the global construction industry is spotlighted in an article highlighting the revivals and slowdowns in different countries in 2018 and the forecasts for 2019.

Several pages are devoted to a report on the latest edition of the Bau and Domotex trade fairs in Germany. This also gave us the opportunity to tell you more about Mapei's presence in Germany and the latest projects the company has contributed to in this country.

The Pacific is also in the spotlight in this issue of the magazine with plenty of articles on Mapei Australia, its plant in Wacol, its supply of systems and technology to prestigious building sites (including the Carrara Stadium and the Commonwealth Games Athletes' Village on the Gold Coast), as well as an article on Mapei New Zealand and its contribution to the extension of Wellington Airport.

Mapei's commitment to sport is described in detail in the report on Sassuolo's performances in the first half of the 2018-19 Serie A league championship, the 2019 Cadel Evans Great Ocean Road Race and training work carried out by Mapei Sport Centre's staff with cyclists competing at an international level.

A new column, called "News from the World of Mapei", features various activities carried out by the Group's subsidiaries all over the world: special events, building projects, trade fairs, etc.

And then... and then I will leave it up to your curiosity to join me in reliving everything that has inspired me to include in a few optimistic thoughts. I hope you enjoy your reading.

Chame Fost!

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SAVE THE DATE

MADE EXPO 2019, 13[™] – 16[™] MARCH COME AND VISIT OUR STAND! HALL 06, STAND A01-C10



MARCH 13-16, 2019 MILAN FAIRGROUNDS, RHD ITALY



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Responsible Care

"Responsible Care" is the world chemical industry's voluntary program based on implementing

principles and lines of action concerning staff health and environmental protection.

Articles featured in this magazine may be republished in whole or in part after obtaining the editor's permission. In any case the source must be mentioned.

ERRATA CORRIGE

The article on the works at Amerigo Vespucci Airport in Florence, published on Realtà Mapei International no. 71, mentions Bi. Esse. Massetti as the installation company. Installation works were actually carried out by C.A.E. Società Cooperativa (Prato). We apologize for the mistake.



COVER STORY

Mapei is supporting an exhibition showcasing how la Scala Theatre has been transformed over the year. It hosts a section focusing on more recent work carried out by the architect Mario Botta and the completion of his project to construct a new tower behind the current stage tower.

THE MAGNIFICENT WORKSHOP La Scala Theatre's 240-year history from Piermarini to Botta

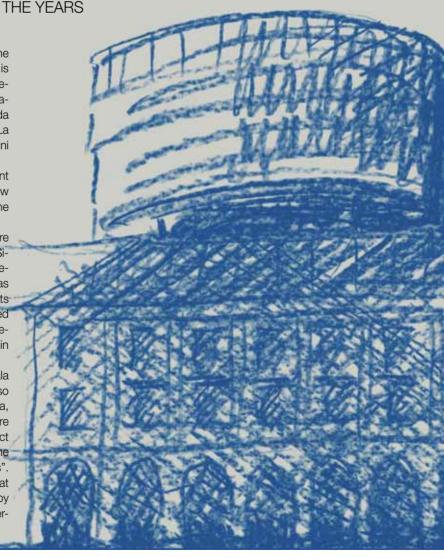
MAPELIS SUPPORTING AN EXHIBITION SHOWCASING HOW THIS THEATRE. A SYMBOL OF MILANESE EXCELLENCE ADMIRED THE WORLD OVER, HAS BEEN TRANSFORMED OVER THE YEARS

In conjunction with the 240th anniversary of the founding of La Scala Theatre in Milan, Mapei is continuing its long-term partnership with the Theatre by supporting an exhibition entitled "La Magnifica Fabbrica. 240 anni del Teatro alla Scala da Piermarini a Botta (The Magnificent Workshop. La Scala Theatre's 240-year history from Piermarini to Botta)".

The history of La Scala Theatre is still as vibrant and important as ever, as well as mirroring how Milan has changed and evolved along with the rest of Italy.

The installation curated by Italo Lupi, Ico Migliore and Mara Servetto is set in the rooms of Livia Simoni Library on the top floor of the Theatre Museum providing an overview of how the Theatre has evolved, while the foyer (Ridotto dei Palchi) hosts a section focusing on more recent work carried out by the architect Mario Botta and the completion of his project to construct a new building in the adjacent street.

"We can feel rightly proud to represent La Scala Theatre from the 18th century into the future - so the CEO and Artistic Director, Alexander Pereira, commented at the official presentation -. We are currently working with Mr Botta on a major project in via Verdi and another important project is the upgrade of the stages to improve their acoustics". After all, La Scala Theatre is a "chameleon" that changes to remain itself, as it was described by Fulvio Irace, who curated the exhibition in partner-





ART AND CULTURE





ship with Pierluigi Panza.

The exhibition - which opened on Monday 3rd December 2018 and will continue until 30th April 2019 - reconstructs and describes every stage in all the changes that have been made to the Theatre throughout its 240-year history.

The Theatre, which first opened on 3rd August 1778, was completed by Piermarini in a neoclassical style in less than two years. From 1821-1830 the architect and set designer Alessandro Sanquirico designed and worked on various renovations to Piermarini's grand hall.

The latest renovation work was carried out from the end of 2001 to December 2004 and directly involved Mapei, as you can read in the facing page.

The Theatre actually underwent all kinds of renovations between these two dates, including a new lighting system designed by Edison in 1883 and



TOP, LEFT. Johann Jakob Falkeisen, Teatro alla Scala (1836), La Scala Theatre Museum TOP. RIGHT. The elliptical tower holding the dressing rooms, locker rooms and offices designed by Botta in 2002.

The Theatre's new tower, which will be constructed right behind the existing stage tower.

major conversion operations designed by Luigi Lorenzo Secchi from 1932 to 1935. La Scala Theatre was bombed on 15th-16th August 1943 before being brought back to life on 11th May 1946 following further reconstruction work again carried out by Secchi.

The latest improvement, again assigned to Mario Botta (with Emilio Pizzi Team Architects), envisages the construction of a new tower along Via Verdi to replace the former San Paolo Bank building. It rises up behind the stage tower, which the architect designed in 2002, and is planned to be completed by 2022. Once again, Mapei will play an active role in the building operations by supplying its products and know-how.

The new tower will bring together all the various offices, some of which are currently accommodated in rented premises outside La Scala Theatre, and provide more dressing rooms for dancers and musicians as well as extending the backstage area. Its overhang makes it reminiscent of Velasca Tower and alludes to mediaeval Milan. It is designed in the characteristic idiom of this famous architect from Switzerland: carefully gauged geometric lines, a combination of solids and empty spaces, and meticulous attention to coverings. There will be a total of six underground levels and eleven floors above-ground. The underground levels will mainly be taken up by one single space, the rehearsal room for the orchestra covering an area of approximately 310 m² and measuring 14 m in height. The size and height of this room will ensure ideal musical conditions for rehearsals.

The latest bold restructuring work placed in the hands of the architect Mr Botta are proof of the Theatre and Milan's ability to rethink in terms of new functional, artistic and also urbanistic requirements, maintaining just the right balance between constant upgrading and the conservation of an historical-architectural legacy that is now part of our world heritage.



Exhibition layout

Upon entering the museum, visitors are greeted by a wall presenting the exhibition and an introductory video clip lasting approximately 5 minutes; the exhibition then continues on the upper floor inside the premises of Livia Simoni Library, where visitors can watch the main 17-minute film, which includes rare film clips about the history of La Scala Theatre from its reconstruction onwards. An adjacent room marks the start of the tour, which unfolds chronologically from 1776, the year when a terrible fire broke out in Regio Ducal Teatro (which was the main opera house in Milan before La Scala), right through to the post-war period: the layout is inspired by the concept of a book, whose oversized pages are graphically blown-up on the walls into an array of striking graphics. The book theme reappears in the main room based around the metaphor of an orchestra: 30 music stands show 30 old and new pictures of La Scala Theatre focusing on various different aspects of the theatre.

The final chapter of the story takes place in the fover area. The focus here is on Mario Botta's 2004 project to redesign the building and the forthcoming extension to the Theatre planned for 2022.

A magnificent wooden scale model designed by



TOP AND BOTTOM, I FFT The exhibition is set out chronologically and is inspired by the concept of a book. whose oversized pages are blown-up

on the walls.

Ivan Kunz has been placed right in the middle of the foyer, a meticulous reconstruction of one section of the building on a 1:75 scale that allows visitors to enter inside the structure to explore, from different viewpoints, all the architectural-functional transformations it has undergone.

.

This is where the project designed by Italo Lupi, Ico Migliore and Mara Servetto is incorporated to bring together the physicality of the scale model and augmented digital reality, so that visitors can enter a three-dimensional domain to explore how the Theatre has evolved. Historical facts and figures back up the story in a clear example of carefully gauged use of technology designed not as an end-in-itself or a special effect but cleverly geared to the overall project.

MAPEI'S PARTNERSHIP WITH THE THEATRE

Mapei, founded in Milan but international by vocation, is proud to support La Scala Theatre. Mapei's close ties with the Theatre come from Rodolfo Squinzi's firm belief (Mapei's original founder in 1937) that "work can never be separated from art and passion"

Mapei has been one of the Theatre's Corporate Subscribers since 1984 and a Permanent Founder since 2008. To reassert Mapei's commitment to this important Milanese cultural institution renowned the world over, Giorgio Squinzi, the CEO of Mapei Group, became a member of La Scala Theatre's Board of Directors in 2016.

Mapei was also involved in the latest renovation work of the Theatre from 2001 to 2004 with its Research and Development Laboratories, Technical Services, products and technologies.

Over the years Mapei has taken part in various cultural enterprises to support research or charity work held at the Theatre, including concerts promoted by the Negri Weizmann Foundation for research into illnesses and diseases, LILT (the Italian League for the Fight against Tumours), the women's section of the Italian Red Cross, the Francesca Rava Foundation that helps children in need both in Italy and around the world, and the Umberto Veronesi Foundation for Scientific Research and Prevention.









"Theatre is a place for memories'

ARCHITECT MARIO BOTTA TELLS US MORE ABOUT HIS EXTENSION PROJECT FOR THE LA SCALA THEATRE

Mario Botta was born in 1943 in Mendrisio (Switzerland). While studying at university he got the chance to meet Le Corbusier, Louis Isadore Kahn and Carlo Scarpa. In 1970 he opened his own office in Lugano and also went into teaching and research. Over the years he has received numerous international awards. His most notable works in Italy include the Mart (the Museum of Modern and Contemporary Art of Rovereto and Trento), the refurbishment and extension of the La Scala Theatre in Milan, the Church of Santo Volto in Turin, the urban redevelopment of the ex-Appiani area in Treviso, the Faculty of Biology and Biomedicine at the University of Padua, etc.

Let's go back to 2002: how did you feel when they told you that you would be in charge of renovating the La Scala Theatre?

The La Scala Theatre is a symbol of Milan but, above all, it is a symbol of Italian opera. Working on the overall look of the Theatre, which had been defined by Piermarini and the post-war transformations that had been consolidated over the course of the second half of the 20th century, meant taking on quite a level of responsibility for the history and culture of our times. I was really excited at the prospect of this new challenge, yet at the same time, whatever the technical-functional solutions, worried as to how a more modern look would have been able to integrate with the historical fabric of the city. The same problem is one that is felt throughout the whole of Europe: on the one hand there is a need to modernise, but on the

other hand we need to conserve the past. It was with this spirit that I took on the indispensable transformation of the existing volumes of the La Scala Theatre to enhance them even further.

Going back to your project for the Theatre again, many people consider it to be almost an insult to the building by Piermarini. Yet, in reality, it has proven to be a winning bet. Did you expect so much criticism?

Not only was the criticism before work started justified but was also necessary and a sign of how much people care for their city. With my project I nurtured the conviction that this new intervention would be beneficial and encourage even further growth and give a new lease of life to La Scala. It seems to me that the decision to conserve everything below the level of the eaves, and to bring all the innovations above the level of the roof, was a winning choice: conserving the language already inscribed in the walls of Piermarini and the 19th century, while bringing innovation with the new parts. I believe we can consider it a "measured" solution that reveals a rather meaningful, sober and correct choice, with no formalisms of any kind for the added areas. Today the criticisms have almost all died down now that we are faced with a monument that finds itself with new spaces to help it carry on living.

The La Scala Theatre will be extended by adding a building with six floors below ground level and eleven floors above ground level, all designed by you. Will



THE ELIPSE: **A CYLINDER OVERLOOKING** THE THEATRE.

Designed by Botta in 2002, it is 6 storevs high and made from reinforced concrete and covered with Botticino marble.

THE NEW BUILDING

AND NEED FOR

EMBODIES THE IDEA

MORE FLEXIBLE

HEATRE COMPANY

this new construction also unleash so many comments or has Milan now got used to La Scala being a "work in progress"?

The new building - which will replace the old one in Via Verdi - may only have a very limited amount of space available (500 m²), but it still represents

a golden opportunity for the theatre to tackle the problem of the constant demand for more space and to bring together in one place all those structures that are vital to its running, rather than have them spread out in other parts of the city. The new structure will include a large rehearsal room with ceilings 14 m high for the orchestra, the office space required will be located on the top floors and, on top of the building, there will be a rehearsal room for the ballet the same height as the existing stage tower.

The "work in progress" approach to La Scala is an indication of the dynamism of the theatres of today, where the idea and need for a more "flexible" and versatile theatre company has become even more felt, one that responds to the rapid transformation and constant succession of different forms of theatre productions.

A constant of your design work is that modern has no fear of the past and conservative renovation work runs alongside more innovative interventions. Will you respect the same principles for the new project?

Yes. It has become a consolidated principle: to enable the language of contemporary times to be inserted into the process of historical stratification alongside the languages of the past. Maybe the greatest merit of this new project is to legitimise the use of contemporary architectural forms against the backdrop of an important and historic European city like Milan.

During your presentation to the press you said, "This is why new theatres don't have much to say, because what they lack is a memory". Could you explain your thoughts on this subject?

The territory of memory is the one thing that theatres in general have to offer to modern times. While we are racing about living our normal day-to-day lives we need those moments of reflection, time to relax and dream, which is what theatres are able to provide. Even when a production is about "modern life", there are constant references to memories of the great past which, often quite subconsciously, we are in desperate need of. Theatre is a place for memories; it is that place where the history of humanity is recalled constantly.

The La Scala Theatre is alive thanks also to the patronage of the Milan bourgeoisie, and that's the way it has been right from the very beginning. How do you think it differs from other great Italian theatres?

The decision of the Milan bourgeoisie to demolish the old church of Santa Maria alla Scala in 1776 and to replace it with the new theatre was the first real indication of forward-thinking thought and courage. The theatre, seen as a place for the collective imagination, had to remain in the city centre. The initial

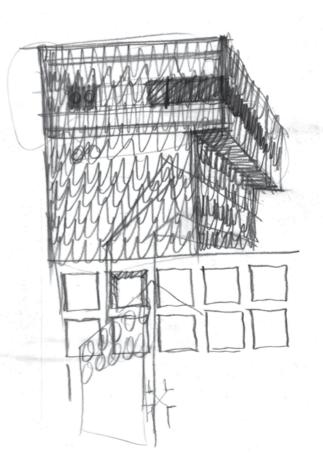
> involvement and commitment has continued over the years: it has always been the theatre's life blood.

> You are the architect responsible for the restoration work on the stage tower of Milan's quintessential theatre and your name is now

bound to La Scala, just like the

name of Piermarini. Do you think that, one day, people will look up and say, "This is Botta's La Scala"?

You are too kind! I regard my work as a service and, for me, it is already a great honour to know that what emerges from the roofs was done to extend the life of the Theatre. Piermarini designed La Scala and Botta designed a few "chimneys"... just like the lantern ceilings above the aisle in a church.



THE NEW TOWER will host a rehearsal room with ceilings 14 m high and a surface area of around 310 m2. The dimensions and height of this room combine to provide better acoustics during rehearsals.

SPECIAL FOCUS FOOD





A GROWING MARKET ALL OVER THE WORLD Mapei systems for this sector

According to the latest report by Cushman & Wakefield, the global food and beverage (F&B) market has seen healthy growth over the last ten years and this is expected to continue. The proportion of comparison retail (clothing, footwear, white goods) as a percentage of total retail is being partially

replaced by F&B offerings. This is being seen, not just in the more mature retail markets in the US

and Europe, but also in Asia Pacific and Middle East & Africa. Expenditure on "eating out" is expected to rise steadily across all regions over the next ten years, led by Asia Pacific, where average spend is expected to increase by 7.5% per year. The Middle East & Africa region is forecast to see average annual growth of 7.3%, followed by the Americas with 5.5% and Europe with 4.9% (source: Oxford Economics).

Historically, food courts in large retail schemes have primarily been dominated by quick service and fast food outlets, but retail landlords are increasingly targeting full service restaurants for their schemes.

A new wave of global cuisines is emerging, driven by consumer curiosity and greater exposure to in-

ternational foods and flavours. Consumers are increasingly looking for more healthy food, whether it is vegetarian, vegan, low-fat, low-calorie, gluten-free, or just prepared from fresh ingredients.

The Italian food sector in particular confirmed its level of excellence at an international level and turnover continued to grow, reaching a total of 137 billion Euros (+3.8%) in 2017.

And thanks to its vast, diversified range of products and specific experience gained from working directly in this field alongside key players in the supply chain, Mapei has developed a series of systems and solutions for all types of surroundings and settings in the food sector to improve levels of hygiene and performance. Cutting-edge, sustainable products, such as the polyurethane/cement non-slip flooring systems with excellent resistance to chemicals, high temperatures and thermal shock for dairies, beverage-making facilities, mineral water bottling plants, breweries, meat processing environments, etc.. Mapei is the partner of choice in this field too, with the objective to maximize the work of all those who dedicate their time with commitment and passion.

MAPEI SYSTEMS FOR THE FOOD AND DRINKS INDUSTRY

Behind every type of food or thirst-quenching drink we all consume on a daily basis there is a complex chain of processes. And before any food or drink makes its way to our table, it will have been through various steps, such as processing, storage, selling and then preparation in the kitchen. Each of these phases is carried out in an environment with its own special characteristics, and in these environments the walls and floors are significant features. Mapei has developed a series of systems and solutions for areas dedicated to food and drinks aimed at improving their hygiene and performance. Learn more on www.mapeifood.com.



ENVIRONMENTS FOR STORING FOOD AND DRINKS

Environments used to store food and drinks can have many different characteristics: from cellars hosting barrels of wine or rooms where cheese can mature gracefully, from refrigeration cells to conserve foods that would otherwise go off more quickly to large warehouses for products packed in suitable protective packaging and containers. When such environments are designed, the finishes of the surfaces also have to be considered very carefully to ensure maximum hygiene and cleanliness and guarantee adequate protection over the years.

- 1 Concrete
- 2 Polyuretane-cement based mortar MAPEFLOOR CPU/HD



AREAS EXPOSED TO HIGHLY AGGRESSIVE ORGANIC ACIDS

In the food industry there are areas exposed to the extremely aggressive action of organic acids, such as curing cells for salami and ham or production plants used to process oil. But there is also a high presence of organic acids in other foods.

This means that wall and floor coverings need to have efficient protection against chemicals, together with strength and compliance with hygiene and sanitation norms and standards.

- 1 Concrete
- 2_Primer MAPECOAT I 600 W
- 3_Epoxy mortar + broadcast MAPEFLOOR I 900 + QUARTZ 1.9
- 4_Water dispersed epoxy formulate + colouring paste MAPEFLOOR I 500 W + MAPECOLOR PASTE (3 coats)
- 5 Compressible cord + sealant MAPEFOAM + MAPEFLEX PU 45 FT



AREAS USED FOR PREPARING AND COOKING FOOD

Kitchens are where the largest amount of foodstuffs is concentrated. As a result, walls and floors are exposed to aggression from many different types of substances on a daily basis, as well as high temperatures, steam and condensation. Added to that is water which is used in abundance, a constant hazard ready to strike at any time. And what is more they must also be able to guarantee a high standard of hygiene and cleanliness.

- 1_Concrete
- 2 Primer + broadcast PRIMER SN + QUARTZ 0.5
- 3_Epoxy formulate + colouring paste + broadcast MAPEFLOOR I 300 SL + MAPECOLOR PASTE + QUARTZ 0.5
- 4_Epoxy formulate + colouring paste MAPEFLOOR I 300 SL + MAPECOLOR PASTE



DINING AREAS

Public dining areas such as bars, restaurants and canteens, often need to be revamped to bring them in line with the latest trends and fashion. This change can also be carried out by temporarily closing the unit or during business hours. Mapei has a wide range of systems able to solve a host of problems, guaranteeing rapid, perfect installation in a very short time to reduce labour costs and minimise disturbance.

- 1_Concrete Epoxy adhesive EPORIP
- 2_Primer + mesh +broadcast PRIMER SN + MAPENET 150 + QUARTZ 0.5
- 3_Primer + broadcast PRIMER SN + QUARTZ 0.5
- 4_Trowellable cementitious paste ULTRATOP LOFT F
- 5_Adhesion promoter PRIMER LT
- 6_Trowellable cementitious paste **ULTRATOP LOFT W**
- 7_Acrylic base coat ULTRATOP BASE COAT
- _Aliphatic polyurethane finish MAPEFLOOR FINISH 58 W



RAPID INSTALLATION OR RENOVATION OF FLOORS IN COMMERCIAL ENVIRONMENTS

Hundreds of people go up and down the aisles used to display and sell foodstuffs in a supermarket every single day. A constant traffic of trolleys, as well as goods being moved around on pallet trucks. Cleanliness and hygiene need to be maintained at all times, particularly in the case of accidents such as a broken bottle or products spilling over onto the floor.

- 1_Screed TOPCEM PRONTO
- 2 Primer + broadcast PRIMER SN + QUARTZ 1.2
- 3_Self-levelling cementitious mortar + aggregate for terrazzo system ULTRATOP + natural aggregates
- 4_Polishing
- 5_Hydrophobing finish MAPECRETE STAIN PROTECTION



AREAS USED FOR PROCESSING **MEAT AND FISH**

There are numerous factors that have to be taken into consideration when designing coatings and coverings for areas used to store meat and fish: low temperatures to conserve the meat and fish, the high amount of water used during the process cycles, the aggressive action of scraps and salts coming into contact with walls and floors and the widespread use of chemical products for cleaning and sterilising.

- 1_Existing damaged cementitious flooring
- 2_Primer + mesh MAPEFLOOR I 900 + RETE 320
- 3_Epoxy mortar + broadcast MAPEFLOOR I 900 + **OUARTZ 1.9**
- 4_Epoxy formulate + colouring paste MAPEFLOOR I 300 SL + MAPECOLOR PASTE (3 coats)
- 5 Compressible cord + sealant MAPEFOAM + MAPEFLEX PII 45 FT



AREAS USED TO PREPARE, BOTTLE AND STORE DRINKS

The industrial bottling process is characterised by the constant presence of liquids, mainly water. But there are also other drinks which, because of their particular composition, can be highly aggressive to the materials they come into contact with: from milk to fruit juices and from non-alcoholic drinks to wines, spirits and

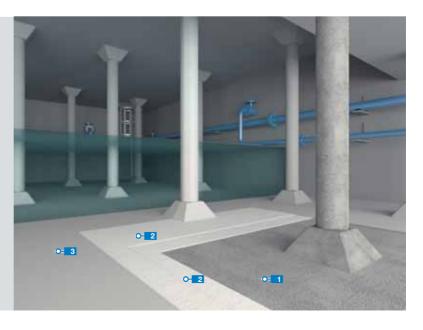
- 1_Concrete
- 2_Primer + broadcast PRIMER SN + QUARTZ 0.5
- 3_Epoxy formulate + colouring paste + broadcast
 MAPEFLOOR I 300 SL + MAPECOLOR PASTE + QUARTZ 0.5
- 4_Epoxy formulate + colouring paste MAPEFLOOR I 300 SL + MAPECOLOR PASTE



STRUCTURES FOR WATERPROOFING **DRINKING WATER TANKS**

Water is a particularly precious resource for mankind, as well as for the health and economic wellbeing of entire communities. Leaks from water distribution networks, normally due to cracks or general wear and tear, lead to the loss of millions of litres of drinking water every year and, as a result, a waste of this precious resource and economic damage.

- 1_Concrete structure
- 2 Primer TRIBLOCK P
- 3_Pure polyurea-based waterproofing membrane PURTOP 1000





Dedicated to all those working with passion in the restaurant sector, **Mapei** has developed a series of systems and solutions to create **floor** and **walls surfaces** to guarantee the highest standards in cleanliness, performance and durability in compliance with hygiene and health standards. **FOOD**: **Mapei systems for the food and drinks industries**.

EVERYTHING'S OK WITH MAPEI





SPECIAL FOCUS FOOD



Milan (Italy) CRACCO RESTAURANT in Galleria Vittorio Emanuele II

FUNCTIONALITY AND ARTISTIC FLAVOUR FOR THE INSTALL ATION OF CERAMIC TILES IN A STYLISH RESTAURANT

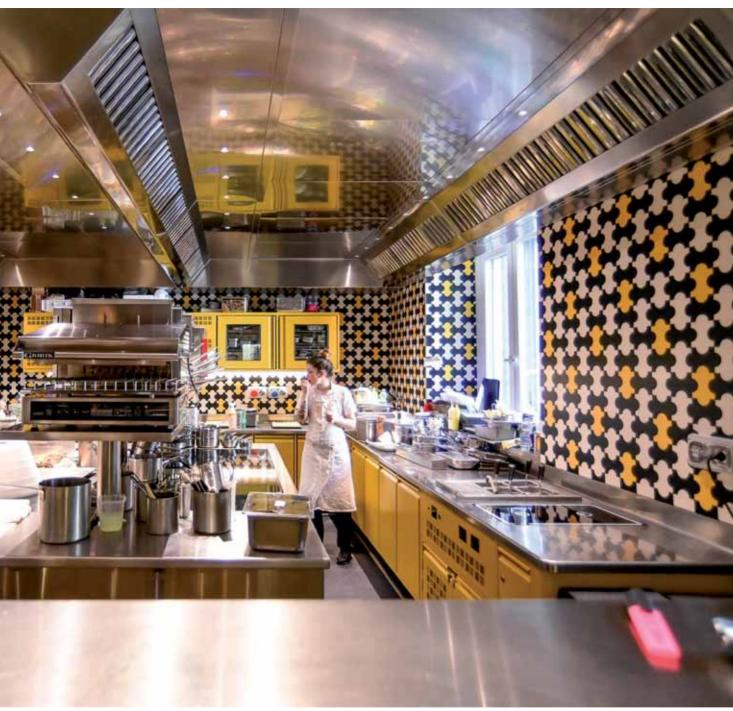
After two years of work, the new Cracco Restaurant in the Vittorio Emanuele II Arcade, in Milan, was opened to the public and inaugurated on the 21st of February, 2018.

A place that today represents a melting pot of various styles of the restaurant sector: from the bistro-café on the ground floor to the restaurant on the first floor overlooking the stuccoes and decorative features of the Vittorio Emanuele II Arcade dating back to the nineteenth century, up to the Mengoni Room on the second floor, reserved for special occasions and events, and lastly the cellars at basement level. The lift creates quite an impressive visual impact and, at each floor, undergoes a metamorphosis to help blend in with the various surroundings. The inspiration behind the architectural design, by Laura Sartori Rimini and Roberto Peregalli from the Peregalli Design Studio, was the idea of that famous Milan style characterized by a certain refined yet gentle sobriety.

The restaurant has an Art Deco atmosphere, with arches, pilaster strips and antique mirrors giving the sensation of even











All the substrates in the kitchens were waterproofed with MAPELASTIC TURBO two-component, flexible cementitious mortars before bonding the 30x60 cm porcelain tiles with KERAFLEX MAXI S1. In the underground service area 20X20 cm ceramic tiles were, on the other hand, installed with ADESILEX P9.

SPECIAL FOCUS FOOD

FROM LEFT ON.

Francesco Freri (Managing Director at Posami), Dario Sbaraini (Managing Director of Posami), Chiara Freri (Head of Marketing at Posami), the famous Italian Chef Carlo Cracco and Dennis Bordin (President of Progress Profiles).









more space inside. An ochre and brown carpet dominates the floor. The main room is lit by natural light coming in through large windows overlooking the Vittorio Emanuele II Arcade. Each floor of the new facility (around 1,100 m² over five floors) has its own kitchen, but the one in the actual restaurant has been made using ceramic tiles created from a design by gio Ponti (a famous architect, industrial and furniture designer from Milan) in saffron yellow, black and white. The tableware, made by Richard Ginori, is also inspired by Gio Ponti and was designed by the architects of the Peregalli design studio in three different colours for the chef Carlo Cracco, echoing the different shades used for the various floors of the restaurant.

Access to the second floor is by invitation only. It is used exclusively for special events and may be adapted according to individual needs and tastes. And lastly, the cellar, with red lacquered walls and pine furniture, is used not only as a sales point, but also for tasting sessions.

INSTALLING CERAMIC COVERINGS ON FLOORS AND WALLS

All the materials and all the fittings and furnishings, right down to the finest detail, are the work of highly skilled craftsmen. Special care has been taken with the soft, almost theatrical lighting, and with the acoustics.

The installation work on the rooms in the Cracco Restaurant was coordinated by Posami, a key player in the local construction sector for the supply and installation of floor and wall coverings, as you can read in the interview following this article.

Various solutions from Progress Profiles were also used, along with cutting-edge technology from Mapei, to create a harmonious combination of tradition and innovation.

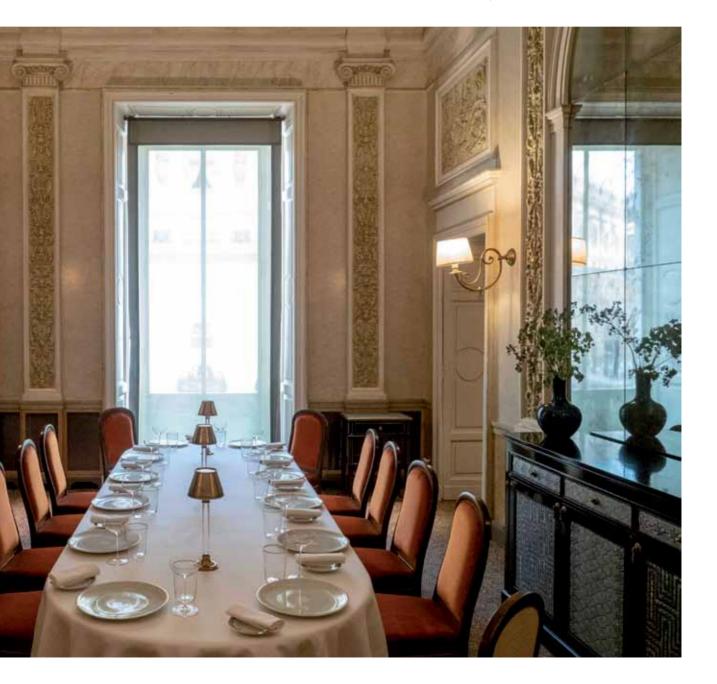
Before installing the tiles, all the substrates in the kitchen were

waterproofed with MAPELASTIC TURBO two-component, flexible, cementitious mortar.

All the 30x60 cm porcelain floor tiles in the restaurant were installed with KERAFLEX MAXI S1, a deformable, cementitious ultra-white adhesive with no vertical slip and Low Dust

The only area treated any differently was a room in the basement used for storing waste, where 20x20 cm ceramic tiles were installed using ADESILEX P9, a high performance, cementitious adhesive with extended open time and no vertical slip.

As far as the wall coverings were concerned, all the ceramic tiles, including the artistic ones (the 4-time curved ceramic tiles designed by Giò Ponti and Alberto Rosselli in 1960) in the Chef's kitchen, the very heart of the restaurant, were bonded





in place with ULTRALITE FLEX, a one-component, high performance, lightweight cementitious adhesive with Low Dust technology, no vertical slip, extended open time, and very high yield.

The joints were then grouted with three different products from the KERAPOXY family.

Because of its flexibility and distinctive "artistic versatility", KERAPOXY DESIGN was widely used, a two-component, acid resistant, decorative epoxy grout, which is available in 15 different colours and is ideal for glass mosaics.

Also used during the installation works was KERAPOXY, a two-component, acid-resistant epoxy grout.

And let's not forget KERAPOXY CQ, the two-component, easy-to-apply epoxy grout with a bacteriostatic agent, excellent cleanability and BioBlock® technology. It is certified according to ISO 22196:2007 standards as a grouting mortar protected against the formation and proliferation of micro-organisms. This product allows designers to create floors, walls and worktops, etc. in compliance with the HACCP system and the requirements of EC Regulation No. 852/2004 regarding hygiene and foodstuffs.

In the bathrooms the surfaces were covered with a square 23x23 mm mosaic, which is made of an AISI 316 steel foil with a gres porcelain base, belonging to the èmetallo metal collection by Mosaico+, a subsidiary of the Mapei Group. It features voluminous marble-effect mosaic sheets (120x60, 6mm thick), finished with a glossy cover, that blend with brass chips.

IN THE SPOTLIGHT

ULTRALITE FLEX

It is a cementitious (C), improved (2), slip-resistant (T), extended open time (E), adhesive classified as C2TEclass according to EN 12004 standard. ULTRALITE FLEX is a one-component high-performance lightweight adhesive with no vertical slip, fair deformability, extended open time, with Low Dust technology, low emission organic volatile compounds (VOC), very high yield, good trowellability and excellent back-buttering capacity for ceramic tiles and stone.

TECHNICAL DATA

Cracco Restaurant, Milan (Italy) Period of construction: 2016-2018

Period of the intervention: 2017 Intervention by Mapei: supplying products to smooth and waterproof substrates, install ceramic tiles on walls and floors and grout joints

Design: Studio Peregalli Client: Carlo Cracco

Installation company: Posami Srl Mapei distributor: Posami Srl **Installed materials:** porcelain tiles, ceramic tiles and mosaics by Mosaico+ (Mapei Group)

Mapei coordinators: Matteo Venturini and Alessio Risso (Mapei SpA, Italy), Rappresentando Srl

MAPEI PRODUCTS

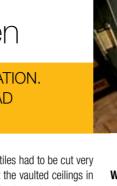
Smoothing substrates: Planitop Fast 330

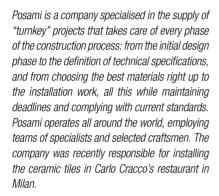
Waterproofing substrates: Mapelastic Turbo, Mapeband Easy, Mapenet 150 Installing ceramic tiles: Ultralite Flex, Keraflex Maxi S1, Adesilex P9 Grouting joints: Kerapoxy, Kerapoxy CQ, Kerapoxy Design

For further information on products visit www.mapei.com

Quality materials, design, and meeting deadlines for a professional kitchen

THE IMPORTANCE OF CRAFTSMAN INSTALL ATION. WE TALK ABOUT IT WITH CHIARA FRERI, HEAD OF MARKETING AT POSAMI





Floor and wall coverings in a professional kitchen are an important feature, not only in terms of cleanliness, but also to safeguard the health and safety of all those who either work in it or need to use it. What are designers and clients looking for when they approach you?

For a chef, the kitchen is the very heart of a restaurant. Apart from the technical characteristics and performance properties, aesthetics are also key features, which means design, form and colour. The setting needs to be a source of inspiration for the creative process of haute cuisine. And the search for the right products begins by contextualising the building itself and the way it dialogues with the spirit that characterises the brand name of the restaurant. The new look for the Cracco restaurant was designed by Studio Peregalli. Laura Sartori Rimini and Roberto Peregalli have created a dialogue between the architecture of the Vittorio Emanuele Arcade and a more sober style that has turned it into a meeting place.

Another important requirement is quality. Ceramic tiles are a semi-finished material and only by installing them correctly can you create a high quality product. Posami ensured that everything was carried out to perfection and employed only highly specialised, qualified teams.

Keeping to deadlines is fundamental with contract jobs and certain parts of the work (such

as in this case when the tiles had to be cut very precisely and neatly to fit the vaulted ceilings in the mezzanine level kitchen) need to be done with extreme care and only skilled tile workers have the ability to carry out the work and complete it on schedule.

Maintenance is another aspect we take into consideration. You need to use quality, pro-grade products for both the first cleaning operations and then also for routine cleaning.

The surfaces in the kitchens of Carlo Cracco's new restaurant have been covered with ceramic tiles. The products used to install the tiles have evolved and been greatly improved over the years. Is this type of covering still considered up to date?

The Chef's kitchen is characterised by the use of a special product: the 4-time curved ceramic brick designed by Gio Ponti and Alberto Rosselli for the 1960 edition of the Milan Triennale exhibition. The Progetto Triennale collection by Marazzi features simple, clean ceramic tiles in saffron yellow, black and white, that need to be installed with extreme skill. They were installed using ULTRALITE FLEX adhesive and KERAPOXY CQ grout by Mapei, and Progress Profiles Proleveling System. This collection does not represent a current trend, but rather an important choice to characterise the space, where the products used to install and grout the tiles are undoubtedly a determining factor in order to deliver quality work.

The quality of the floor and wall coverings combines with the best adhesives and grouts.

More in line with the new horizons in porcelain tiled surfaces is the choice of covering materials for the bathrooms: voluminous marble-effect mosaic sheets (120x60, 6mm thick), finished with a glossy cover, blend with brass chips.

The outcome is a square 23x23 mm mosaic from èmetallo metal collection by Mosaico+, made of an AISI 316 steel foil with a gres porcelain base.



What influence do current norms and standards have on the choice of installation materials in large spaces?

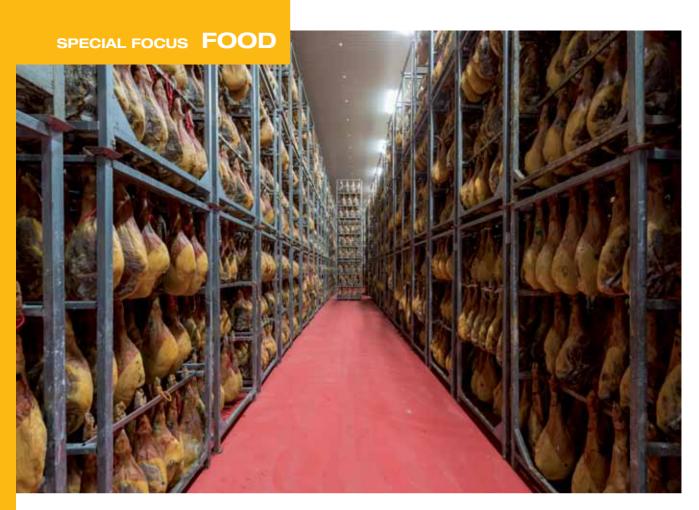
We are able to offer the highest quality materials, choose only the highest quality manufacturers and manage all the construction phases by following current standards. For example, when you have to install flooring over large surfaces, the main problem you have to overcome is expansion joints: their layout and position on the floor must be exactly the same as the layout and position on the installation bed. In this specific case, for the floor in the Cracco restaurant, an uncoupling membrane was used so that the expansion joints could be formed in correspondence with the joints, which meant avoiding having joints unacceptable from an aesthetic point of view.

This means expert installation in compliance with current standards, which in turn means training, professionalism and the use of leading brand products recognised at a global level.

Up until just a few years ago ceramic tiles were the only choice for floor and wall coverings in professional and industrial kitchens. In your opinion, what are the pros and cons of this choice?

Using porcelain tiles helps ensure that the work delivered gives added value and has a long service life. Porcelain tile is an extremely compact and exceptionally strong type of ceramic. It is also non-porous, highly resistant to abrasion and waterproofing. It also stands out for its very high surface hardness and its high resistance to loads and wear. These are all characteristics that make it the ideal choice for use in settings such as professional and industrial kitchens. Other important aspects in spaces such as these are its resistance to staining (EN ISO 10545-14) and its degree of non-slip finish.

Posami's motto claims: only a well installed product is a good product. For further information see www.posami.it



COMAPA HAM FACTORY Otura, Spain



The Comapa Group, one of the leading producers and retailers of ham all around the world, has opened a new warehouse in their facility in Otura (Spain). The contractor responsible for the construction of the warehouse wanted to install a seamless floor with very few joints suitable for the food industry.

Mapei Technical Services recommended using MAPEFLOOR CPU/MF, highstrength, polyurethane/cement-based mortar used as a multilayered antiskid coating for industrial floors from 3 to 6 mm thick. It provide floors with a high level of resistance to chemicals, good mechanical properties, a non-slip finish and good resistance to frequent cleaning cycles. The concrete substrate was first

mechanically preapared and primed with epoxy resin-based PRIMER SN. The surface was then fully broadcast with quartz sand with a granulometric size ranging between 0.3 to 0.9 mm to guarantee a perfect bond with the next product to be applied.

After applying MAPEFLOOR CPU/MF, which was tinted directly on site with red MAPECOLOR CPU, the surface was fully broadcast with QUARTZ 0.5 while it was still wet. Once the material had completely hardened, any excess guartz sand was removed with a vacuum cleaner.

A coat of MAPEFLOOR CPU/TC polyurethane-cement formulate was applied to provide a protective finish, again tinted with red MAPECOLOR PASTE.

TECHNICAL DATA Comapa warehouse, Otura (Spain)

Year of construction: 2017

Year of the intervention: 2018 Intervention by Mapei: supplying products for preparing substrates and

laying resin floors

Mapei coordinator: Pedro Madera, Raul Burguete, Javier Fortuny, Mapei Spain

Design: Incudi Engineering

Flooring contractor:

Client: Comapa

of Granada

Aplinsa

MAPEI PRODUCTS Preparing the substrates: Primer SN, Quartz 0.5 Laying resin floorings: Mapecolor CPU, Mapecolor Paste, Mapeflex PU20, Mapefloor CPU/MF, Mapefloor CPU/TC

For further information on products see www.mapei.com and www.mapei.es



SISTE SANG **MICROBREWERY** Oslo, Norway





The Siste Sang Microbrewery was opened recently in Oslo and offers clients a combination of a microbrewery, an off-licence and a pub.

When building the floors, a 3 mm thick coat of MAPEFLOOR PU SL S was applied. This system, which is distributed in Norway by Mapei AS, offers good resistance to wear, oil and grease as well as to frequent cleaning with chemical detergents. It has a non-slip finish and is waterproof, flexible and resistant to impact loads and thermal shock.

The final protective coat was provided by MAPEFLOOR FINISH 415, a twocomponent, flexible, aromatic polyurethane finish with good resistance to wear. This coating system was also used to cover the walls up to a height

of one metre above floor level to make them waterproof and easy to sterilise.

For the area where the beer barrels are washed, the floor was coated with ochre coloured MAPEFLOOR CPU/ HD three-component polyurethane/ cement-based mortar with high resistance to chemicals, high temperatures and thermal shock, complying with standards applied in the foodstuffs sector. MAPEFLOOR PU 460 N, a coloured, elastic polyurethane resin product distributed in Norway by Mapei AS, was used for the floor in the pub and off-licence. 48 hours after being applied, the floor surface was then treated with two coats of MAPEFLOOR FINISH 58 W two-component, polyurethane protective finish resistant to UV rays.

TECHNICAL DATA Siste Sang microbrewery, Oslo (Norway)

Period of construction: 2016-2017

Year of the intervention:

Intervention by Mapei:

supplying products to prepare substrates and laying resin floors Client: Siste Sang AS Main contractor: Kreativt Bygg

Flooring contractor: Norsk Epoxy AS Mapei coordinators:

Eirik Nilseng and Tore Karlsen, Mapei AS (Norway)

MAPEI PRODUCTS

Laying resin floors: Mapefloor Finish 415, Mapefloor Finish 58 W, Mapefloor PU 460 N*, Mapefloor PU SL S*, Mapefloor CPU/HD

*These products are manufactured and distributed on the Norwegian market by Mapei AS.



FOODBOX INDUSTRIAL KITCHEN Vértesszőlős, Hungary



The company Foodbox LLC planned to build a new industrial kitchen inside an old factory in Vértesszolos in Northern Hungary.

The floor in the kitchen had to guarantee high standards of hygiene and high resistance to heat, heavy loads and daily cleaning treatment using chemical cleaning products.

Before creating the flooring, the walls around the perimeter were levelled off to a height of around 35-40 cm with PLANITOP FAST 330 mortar, following which their surfaces were treated with PRIMER SN, two-component epoxy primer, mixed with ADDITIX PE.

Around the washbasins and cooking area (400 m²) MAPEFLOOR CPU/RT was used, a three-component, high strength, polyurethane/cement-based mortar with high resistance to chemicals. This product complies with standards currently adopted in surroundings where food and beverages are processed.

For the flooring in the remaining part of the surface it was recommended to use MAPEFLOOR CPU/MF, a polyurethane/ cement mortar, self-levelling, with high resistance to chemicals for flooring between 3 and 6 mm thick.

The walls were coated with MAPEFLOOR CPU/TC, a polyurethane/ cement based formulate specifically developed to create seamless films.

The joints between the walls and floors were sealed with MAPEFLEX PU 45 FT sealant.

TECHNICAL DATA Foodbox industrial kitchen, Vértesszőlős (Hungary)

Year of construction:

Year of the Mapei intervention: 2017 Intervention by Mapei:

supplying products to prepare substrates and lay resin floors

Client: Foodbox LLC Works director: Zoltn Mizak Main contractor: Mizi-Vil

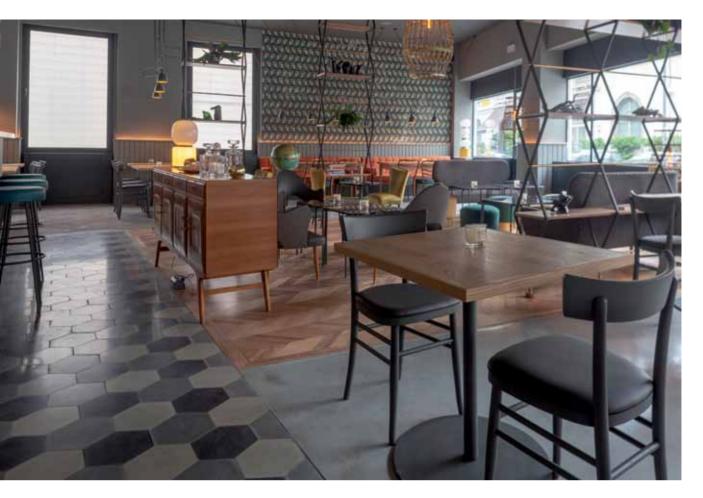
Resin floors contractor: Floor-Tech LLC

Mapei distributor: Avers

Mapei coordinators: Nárcisz Nagy, Mapei Kft

MAPEI PRODUCTS

Preparing substrates: Additix PE, Planitop Fast 330. Primer SN Laying cementitious floors: Mapefloor CPU/ MF, Mapefloor CPU/RT, Mapefloor CPU/TC Sealing joints: Mapeflex PU 45 FT



FISHMONGER AND GRIDDLE Milan, Italy





A fishmonger's with its own griddle has opened behind the skyscrapers in the Porta Nuova district of Milan.

For the restaurant part of the shop, Mapei Technical Services proposed the ULTRATOP SYSTEM to create cementitious floorings with a very attractive finish, which are resistant to abrasion and intense foot traffic.

After a proper mechanical preparation of the substrates, the substrates were treated with PRIMER SN two-component, epoxy primer.

TRIBLOCK TMB was also applied on the substrates where required to act as a temporary moisture barrier.

The next step was to apply ULTRATOP self-levelling mortar in certain areas, while in other areas it was recommended to use the ULTRATOP LOFT system, which comprises ULTRATOP LOFT F (coarse-textured), and ULTRATOP LOFT W (fine-textured), trowellable cementitious pastes used to create floorings with a decorative, materic effect.

The client expressed the wish to leave unaltered the look of the flooring and to prevent to get any "wet effect", even after the application of the top-coat layer. For this reason, it was suggested to treat the surface of the floor with

MAPEFLOOR FINISH 58 W. two-component, aliphatic, polyurethane finish, which protects the surfaces without altering their colour.

The top-coat finish was applied after a layer of ULTRATOP BASE COAT.

TECHNICAL DATA Pescheria con cottura (Fishmonger and griddle), Milan (Italy) Year of construction:

Year of the Mapei intervention: 2018 Intervention by Mapei:

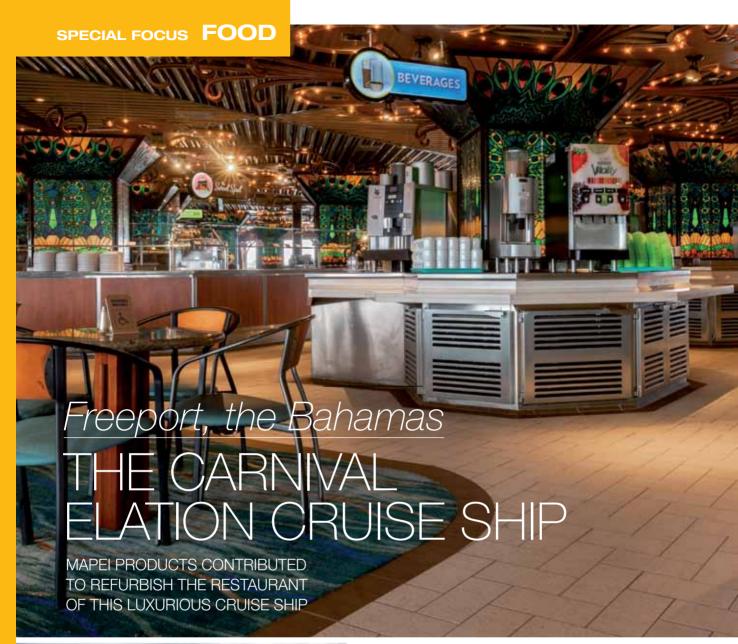
supplying products for preparing substrates and creating cementitious floors **Design:** Stefania Tornesello Client: KR Studio Srl Works director: Dario lacolelli

Flooring contractor: Inimpresa

Mapei coordinators: Massimiliano Nicastro. Giuseppe Dal Mas, Mapei SpA (Italy)

MAPEI PRODUCTS

Preparing the substrates: Primer SN, Triblock TMB Laying cementitious floorings: Primer LT, Ultratop, Ultratop Loft F, Ultratop Loft W Finishing the floors: Mapefloor Finish 58 W. Ultratop Base Coat





Webster's dictionary defines "elation" as "a feeling or state of great joy or pride." Without doubt, that word is an apt description for the travelers on Carnival Cruise Line's cruise ship, Carnival Elation. Sailing primarily from Jacksonville, Florida, and measuring 261 m long, the 2,130-passenger Elation sails multi-night cruises to the Bahamas and Eastern Caribbean islands. One of the line's most popular cruise ships, Carnival Elation is a floating city. The thousands of partying, dancing and sunbathing tourists take a toll on her decks. Additionally, spilled drinks and food, as well as constant exposure to salt water and sea air, create a corrosive environment that cannot go unaddressed for long periods of time. So, every three to five years, the Elation undergoes complete refurbishment.

At the end of August 2017, Carnival Elation sailed into dry dock at Grand Bahama Shipyard in Freeport, Bahamas, for her scheduled complete refurbishment.

A JOBSITE DIFFERENT FROM ONE ON LAND

Precetti Inc. was the general contractor awarded the job of refitting the mid-ship pool area of Deck 10 and Nova Marine Service LLC won the bid to completely refurbish Tiffany's Lido





LEFT ULTRAPLAN 1 PLUS cementitious underlayment brought the uneven restaurant floor back to level.

ABOVE. Diners now enter and walk across a level floor of ceramic tiles, installed on top of PLANIBOND EBA, bonded with GRANIRAPID and grouted with warm gray ULTRACOLOR PLUS.

MAPEI PRODUCTS ON THE JOBSITE

When working on the shipboard pool and surrounding bars and restaurants, contractors applied a thin layer of the anti-corrosive primer MAPECOAT GUARD 100 to the prepared surface. Then, to level and protect, the crew used the brandnew, Marine-certified, self-leveling polyurethane underlayment MAPEDECK LITESCREED mixed with MARINE FILLER 20. The Marine-certified, thixotropic polyurethane underlayment MAPEDECK LITESCREED TIXO was used to level the uneven vertical steel in the pool beach and coamings.

KERAPOXY as an adhesive and KERAPOXY CQ as a grout were used to install the ceramic tiles in addition to the pool mosaics.

As for the Tiffany's Lido Restaurant as well as the SPA Carnival lobby and the corridors in the forward area of Deck 12, the steel deck had been worn down by high levels of foot traffic to a point of noticeable unevenness. ULTRAPLAN 1 PLUS cementitious underlayment, which is manufactured and distributed in the Americas by Mapei Corp, was used to-level the steel substrate. This was topped with PLANIBOND EBA epoxy bonding agent, which is also manufactured and distributed in the Americas by Mapei Corp. After a broadcast of quartz sand, ceramic tiles were bonded with GRANIRAPID and joints were grouted with ULTRACOLOR PLUS in its warm gray color.

The Mapei products used in the project provided rapid setting time and curing speed as well as vital durability.

This article was taken from Realtà Mapei Americas n. 28, the magazine published by Mapei Corp. whom we would like to thank.

Restaurant on Deck 10 aft, as well as the SPA Carnival lobby and the corridors on Deck 12 forward.

As Elation was entering the Bahamas dry dock for rehabilitation, a storm was forming off of Cape Verde in the central Atlantic Ocean. By August 31, that storm developed into a Category 3 hurricane named Irma. The Bahamas were right in Irma's path. As a safety measure, the islands were evacuated and work on the Elation came to a halt. By the time that work resumed on the cruise ship, the race was on to complete the rehab and return it to service.

TECHNICAL DATA

Carnival Elation, Dry-docked at Freeport, The Bahamas

Year of construction: 1998
Period of refurbishment: August-October 2017

Period of Mapei involvement: August-October 2017

Intervention by Mapei: supplying products to refurbish the-ship pool area

of Deck 10, Tiffany's Lido Restaurant on Deck 10 aft, SPA Carnival lobby, corridors on Deck 12 forward

Contractors: Precetti Inc. and Nova Marine

Mapei coordinator: Guido Sardi, Mapei Corp. (USA)

MAPEI PRODUCTS

Preparation of substrates: Planibond EBA*,

Mapecoat Guard 100, Ultraplan 1 Plus*, Mapedeck Litescreed, Marine Filler 20, Mapedeck Litescreed Tixo Installation of ceramic tiles: Granirapid, Kerapoxy

<u>Grouting joints</u>: Ultracolor Plus, Kerapoxy CQ

*These products are manufactured and distributed in the Americas by Mapei Corp.

SPECIAL FOCUS FOOD



THE CHEF, GENNARO ESPOSITO, TALKS ABOUT HIS WORK AND HIS PROFESSIONAL KITCHEN

The ingredients for a smooth-running kitchen



IN THIS PAGE.

Gennaro Esposito in Vico Equense (Southern Italy), where he opened "Torre del Saracino" restaurant, which was awarded two Michelin stars in 2008.

ON THE NEXT PAGE.

The wine cellar is an integral part of the tower hosting the restaurant and it took plenty of hard work to bring it into operation. It now holds wine bottles at controlled temperature and humidity levels.



Gennaro Esposito is a famous face on Italian TV after taking part in a number of cookery programs.

Born in 1970, after attending catering school and a course run by chef Gianfranco Vissani, Mr Esposito opened Torrre del Saracino Restaurant in Vico Equense.

He received his first Michelin star in 2001 and began working with Alain Ducasse and Franck Cerutti. He was then awarded a second Michelin star in 2008. In 2011 the Italian magazine Identità Golose chose him as the "Best Italian Chef of the Year" and the Italian food and wine quide Gambero Rosso included him among their top three Italian chefs. His cuisine draws on local produce from a territory in Southern Italy that stands out for its biodiversity.

A restaurant's kitchen can be compared to a car's engine, whose smooth running is largely responsible for the results it achieves. True or false?

Absolutely true, the kitchen is the hub of a restaurant just like a car's engine. Of course, a good kitchen is not enough on its own, but without it the car would never... even get started. I am the driver, but my team and the front-of-house staff are crucial for ensuring we all travel in the same direction.

In your experience, what do you need to create a kitchen that really represents its chef?

The kitchen must identify with the chef using it. First and foremost, it must be user-friendly, because, in my view, technique and timing are crucial and so you must be able to work with precision, ease and speed.

Can a professional kitchen be designed exclusively by an architect or is the chef's contribution also vital?

The chef can allow the designer to.... make the engine work. Obviously, the designer of a structure must be perfectly familiar with the structure itself to make it the best it can be.

How important is the concept of the front-ofhouse and reception of a restaurant compared to the kitchen, and why is it important?

Our work in the kitchen is enhanced by the way the frontof-house looks and how well people are welcomed into the restaurant. The two things are closely connected. Guaranteeing diners really enjoy their food means providing them with more than just a culinary experience.

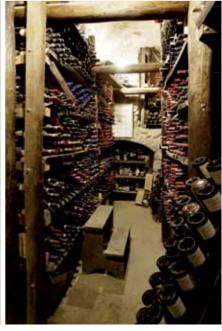
Is a well-structured kitchen "just" a matter of setting out the utensils and worktops or does it also involve the proper management of a professional work environment?

Both things are important and affect each other, because working in a comfortable setting facilitates interpersonal relations. The kitchen staff are like a ship's crew, they need a good skipper and must work well together.

In terms of hygiene and cleanliness, how much do cutting-edge building products and technology count in constructing a kitchen?

I think they provide a crucial contribution to the smoothworking and maintenance of a kitchen that meets the chef's miscellaneous needs. A clean and hygienic work environment is vital.







The Milan Center for Food Law and Policy held its Second International Forum on the 13th-14th November last year in Genoa (Italy). It was entitled "Right to Water, New Arctic, Old Mediterranean". "We are sending out a very powerful message from here in Genoa about two things of the utmost importance for our planet - so Livia Pomodoro announced, the President of the Milan Centre for Food Law and Policy, a Centre for documentation and study on rules and public policies on nutrition, - the situation is serious, but we still have time to change direction. On one hand we need to follow a path that leads to a kind of adaptation to climate change that is now inevitable, on the other we need to take preventa-

tive action. All nations must reduce their carbon dioxide levels in the air and share innovation and technology that can help all those countries facing problems that need dealing with, like, for example, plastic in the oceans or pollution".

Due to the gradual melting of glaciers in the Great North due to temperatures that are rising at twice the rate of the rest of the planet, a new sea is being created that is virtually the same size as the Mediterranean, full of fossil resources and new geopolitical prospects. New waterways are being opened up, a new marine eco-system is being formed, and invaluable new fishing territories are becoming available.

This New Arctic offers lots of impor-

tant opportunities but also poses new problems from a scientific, legal and political viewpoint. This new sea needs to be studied, governed and kept safe. All Arctic nations are, therefore, getting ready for a new future in which the New Arctic will be milder, inhabited and highly contested. At the same time, climate change is also transforming the Old Mediterranean: the consequences are mainly negative due to the extreme weather conditions and their impact on the eco-system, the gradual desertification of entire regions and political-economic pressure on the management of "climate migration".

These two regions share a common interest in terms of laws: the New Arctic is aware of the overpowering impact of economic colonialization, while the Old Mediterranean is familiar with marginalisation, injustice and poverty afflicting entire communities.



Italy is not just a platform for a possible new future for the Mediterranean economy and a crucial crossroads for the south of the planet, its enduring presence in the Arctic in the form of exploration, research and investment, now makes it one of the countries most committed to safeguarding rights, cooperation and the further development of a region that will play a crucial role in the global equilibrium.





"Today we are focusing on the Arctic and Mediterranean and on how Italy can be a leading player in the relationship between these two seas so closely connected by the climate change underway - so the Special Envoy for Arctic of the Italian Ministry of Foreign Affairs and International Cooperation. Mr Carmine Robustelli, explained -. We have been operating in the Arctic for many decades through our explorers and active scientific research. The Italian Navy has now presented its own operations through the Navy's Hydrographic Institute based in Genoa: a widely admired oceanographic campaign that will continue to be implemented next year. Italy also operates in the Arctic through its businesses, attempting to showcase virtuous business models and make the concept of sustainable growth viable". Father Joshtrom Isaac Kureethadam, Professor of Philosophy of Science and Director of the Institute of Social and Political Sciences at the Salesian Pontifical University in Rome, passed on Pope Francis's blessing from the Vatican. The message soon resulted in a reminder of the concept of 'urgency-alliance': "Our generation must repair the damage. This is the planet's final cry for help and the only way to emerge unscathed is to create an alliance between all wellintentioned people. We cannot leave our Home's fate - this terrestrial-watery globe - in the hands of just a few bullies.



This is our Home and we must create a movement united from the bottom up through open and collective dialogue". The roundtable's proceedings were drawn to a close by Caterina La Porta from Università degli Studi in Milan, who illustrated an innovative surveying system designed to combat micro-plastics found in our oceans.

Diana Bracco, the President of the Milan Foundation for Expo 2015, brought the Forum to a close by sending out a message of encouragement to up-andcoming generations.

The Milan Centre for Food Law and Policy is a permanent watchtower and global benchmark for the right to food that was first established on 17th February 2014 through the combined input of EXPO Milano 2015, the Lombardy Regional Council, Milan City Council and Milan Chamber of Commerce. Chaired by Livia Pomodoro - President of the No'hma Theatre and President of the Brera Fine Arts Academy - it became an association on 19th June 2015.



Operating through the Milan Center for Food Law and Policy, ever since 2014 Livia Pomodoro has been busy promoting issues related to food and nutrition and, more generally speaking, the UN 2030 agenda, a programme of action aimed at people, the planet and prosperity.

From the commitment to build an intangible legacy of EXPO Milano 2015, it has been proposed to set up the Milan Center for Food Law and Policy, a center for the documentation and study of rules and public policies on nutrition. Milan Center for Food Law and Policy is a research think tank that performs projects and advocacy initiatives concerning effective management of natural resources, with particular attention to food security, water efficiency, and adequate nutrition. The Centre's activities focus around the continuous analysis of national. European and international legislation. The MCFLP is a structure dedicated to collecting, cataloging and archiving information related to the issue of food. with the aim of facilitating the access and understanding to scholars and citizens.

OBJECTIVES:

- Analysis of policies and collection of best practices at a local, national and international level:
- Construction of the network
- Organization of conferences and workshops for thematic areas and production of handbooks
- Creating a thematic think-tank, able to imagine new scenarios in that scientific area that is located at the intersection of law, nutrition, economy and agriculture, by addressing critical issues, comparing different solutions, and offering local and international ideas.

(www.milanfoodlaw.org)

THF GI OBAI CONSTRUCTION INDUSTRY: revivals and slowdowns

GEOGRAPHICAL AREA	Investment in construction in 2018 Billions of €
FAR EAST & OCEANIA	3,913
NORTH AMERICA	1,595
WESTERN EUROPE	1,382
EASTERN EUROPE	436
LATIN AMERICA	395
AFRICA AND OTHER M.E.C.	247
PERSIAN GULF	2297
TOTAL	8,197

THE MARKETS IN PERSIAN GULF NATIONS AND NORTH AFRICA ARE EXPECTED TO GROW IN 2019. MORE MODERATE GROWTH IN NORTH AMERICA AND **EUROPE COMPARED TO 2018**

The global construction industry continued to grow in 2018 with investment rising by approximately 3% to a total value of approximately 8,200 billion Euros. The worldwide construction industry grew slightly less than the global economy, which rose by an estimated 3.7%.

The amount of investment in construction in various regions and their share of the global market are shown in these pages.

WESTERN EUROPE

Investment in the Western European construction industry in 2018 rose by an estimated 2.5% compared to 2017. There was, in fact, a slowdown in growth in the industry compared to 2017, when it exceeded 4%. The trend in investment was, therefore, slightly positive, although the housing industry was less dynamic. This sector accounts for approximately 17% of the overall global construction market. The construction industry performed better overall than the economy, which grew by 1.9%. This year the construction industry should expand moderately and is expected to grow by approximately 2%, while

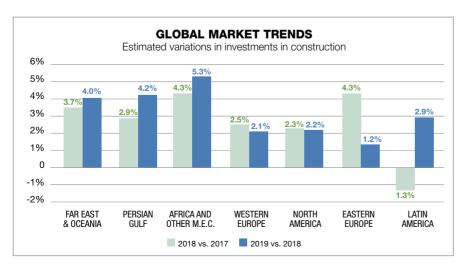
the GDP for this region is expected to grow modestly by an estimated 1.5%.

Last year, investment in building varied on all the area's five main markets. The Spanish construction industry grew most (+5.6%) driven along by the excellent trend in the housing sector. The construction industry grew twice as fast as the Spanish GDP. Estimates for 2019 indicate that growth in investment in this field should rise by approximately 4%. The construction industry will continue to be one of the most dynamic sectors of the Spanish economy, which is expected to grow overall by

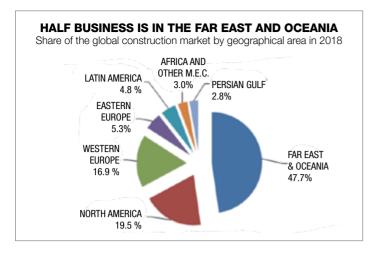
The German construction industry continued to grow in 2018 and investment in construction increased by approximately 3% compared to a 1.5% rise in the GDP. The industry is driven along by investment in housing, both new constructions and restructuring work. The German construction industry is expected to continue to be one of the most dynamic in Western Europe in 2019 with investment expected to increase by an estimated 2.8%.

The French economy and construction industry only grew by the relatively moderate figure of 1.6% in 2018. There is expected to be a further slowdown in growth this year when investment will be much lower than the continental average.

There was also relatively slow growth in 2018 in the Italian construction industry, too, estimated at 1.7%. Nevertheless, the construction industry performed better than the economy as



The graph shows estimates of the trends in the construction industry in 2018 and the variations expected during this year.



a whole: the nation's GDP only grew by 1%. The Italian construction industry is expected to perform slightly better in 2019, when there could be an approximately 2% rise in investment. In contrast, the national economy is expected to grow more slowly this year at a rate of less than 1%.

Due to uncertainty connected with Brexit, the British construction industry was the worst performer in the whole of Europe in 2018. Investment in construction dropped to approximately 1%, while the GDP grew by 1.4%. The recession in the construction industry is expected to be temporary and in 2019 an increase (if only modest) is forecast in construction output. Brexit's impact on the British economy is, nevertheless, still uncertain, so it is hard to make any forecasts about the construction industry.

EASTERN EUROPE

The region's economy grew substantially last year at a rate of 3%, benefiting from the improvement in Russia's economy and the excellent trend in the other main economies in the area (notably Poland, Hungary and the Czech Republic). In this favourable context, the construction industry grew atover 4%. The Russian construction industry emerged from recession and recorded a moderate growth rate estimated at approximately 1%, while the trend in the construction industry on the other main markets was excellent, partly thanks to a revival in investment in public works thanks to new funding from the European Union. Eastern Europe accounted for over 5% of the global construction industry in 2018.

The area's economic growth is expected to slow down in 2019; the GDP should increase by approximately 2% penalised by the recession in the Turkish economy. The economic situation in Central-Eastern Europe is expected to be good, while the Russian GDP will only grow by a modest 1.6%.

Growth in the construction industry is expected to slow down considerably in 2019 compared to the previous year; it is expected that investment will produce a growth rate of between 1% and 2%. The figures for this region are affected by the serious recession expected to hit the Turkish construction industry and a slowdown in the growth of the infrastructures market in Central-Eastern Europe. In contrast, investment in construction is expected to rise in Russia, where the housing sector should start to grow again after performing relatively modestly over the last few years.

NORTH AMERICA

The North American economy grew by 2.8% in 2018, improving notably on the previous year's performance. According to the International Monetary Fund (IMF), USA's GDP grew by 2.9%, Canada's by 2.1% and the Mexican economy grew by 2.1%. Investment in construction increased by an estimated 2.3%, which is slightly less than the rise in the area's GDP. A notable slowing down in the housing sector reduced the overall growth rate on the North American market. The positive trend in the non-housing industry and infrastructures sector partly counterbalanced the slowdown in the housing industry.

It is estimated that the North American construction industry will grow by 2.2% in 2019, an almost identical rate to that estimated for the region's GDP (+2.3%). The US and Canadian economies are expected to grow slightly more slowly than in 2018, while Mexico is expected to maintain the same rate.

This year the housing industry (which had grown at extremely high rates until 2017) should continue to be the least dynamic aspect of the construction market, while the outlook is more positive for the non-residential and civil engineering sectors. Overall investment in construction will grow by 2.1% in United States and 2.6% in Canada.

Last year North America basically held on to its share of the global construction market estimated at approximately 20%.

LATIN AMERICA

The region's economy stagnated in 2018. The relatively low rise in Brazil's GDP was counteracted by a clear recession in the Venezuelan and Argentinian economies due to turbulence on the latter's financial and currency markets. The region's other markets continued to grow at relatively slow rates.

Last year the trend in the construction industry was the worst in the world; it is estimated that investment dropped by over 1%. There was a recession in the construction industries in Brazil,

BRAZIL'S ECONOMY IS EXPECTED TO CONTINUE TO REVIVE IN 2019 AND ITS CONSTRUCTION INDUSTRY SHOULD SEE RENEWED GROWTH IN 2019



GROWTH WILL CONTINUE IN THE FAR EAST AND OCEANIA. A SLOWDOWN IS EXPECTED IN THE CHINESE CONSTRUCTION **INDUSTRY**



Argentina and Venezuela, only partially compensated for by a rise in investment in other nations in the area.

The region's economic situation should improve this year and the area's GDP is expected to grow by 1.3%. Brazil's economy is expected to continue to revive and there will be notable growth in Colombia. Chile and Peru. On the other hand, Argentina's and Venezuela's GDPs are expected to drop again. The construction industry should see renewed growth in investment in 2019, thanks to the reversal in trend on the Brazilian market and continuing growth in Chile, Peru and Colombia. The only countries for which the outlook remains bleak are Venezuela and Argentina.

The poor performance of the construction industry over the last few years has resulted in a notable drop in Latin America's share of the overall construction industry. This region is forecast as accounting for less than 5% of overall investment in the global construction industry in 2018.

PERSIAN GULF NATIONS

There was modest economic growth in this region in 2018 estimated at 1.4%. Following the 2017 recession, the Saudi economy began growing again at approximately 2%, bolstered by rising oil prices. The Emirates' GDP grew at the more robust rate of around 3%, while Iran, penalised by international sanctions, had to deal with a recession.

The region's main construction markets had different growth rates in 2018. This area accounts for 3% of the global construction industry. Investment is estimated to be growing considerably in the Emirates, partly due to projects linked with Expo 2020. In contrast, the construction industry has performed poorly in Saudi Arabia in 2018, where a cut in public investment in infrastructures and block on important housing projects have negatively impacted construction output. The 2018 recession in Iran also affected the construction industry, which saw a decline in investment. Overall, thanks to growth in the Emirates and other smaller markets in the region, it is estimated that the construction industry in the Persian Gulf has grown by approximately 3%.

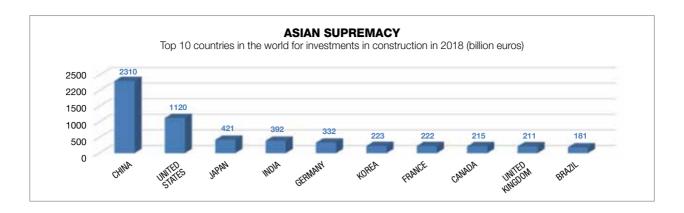
The region's economic situation is expected to improve in 2019. Saudi Arabia's GDP should grow by approximately 2%, while the Emirates' economy should expand by almost 3%. According to the IMF, only Iran's economy is expected to perform badly as its recession worsens. Estimates for the 2019 construction industry are positive. The Emirates' construction industry should show the highest rate of growth, while a relaxing of budgetary policy in Saudi Arabia should result in rising investment allowing major infrastructural works to be carried out throughout the country. In contrast, the forecasts for the Iranian construction industry are negative, at least for the whole of 2019. In overall terms, investments in construction in the Persian Gulf this year should rise by approximately 4%.

OTHER MIDDLE EASTERN COUNTRIES AND AFRICA

Last year there was a positive trend in the region's main economies. The highest growth rate was recorded in Egypt where, according to the IMF, the GDP grew by over 5%. There was also good economic growth in Morocco, Israel and Libya, which experienced a partial revival in exports of crude oil. The

THE INDUSTRY'S BIGGEST PLAYERS: 7 OUT OF 10 ARE CHINESE

COMPANY	2017 Turnover in billions of dollars	
China State Construction Engineering Corp.	145.0	
China Railway Group	131.6	E TOTAL CONTRACTOR OF THE PROPERTY OF THE PROP
China Railway Construction Corp.	102.2	9
China Communications Construction Group	75.4	
Vinci	46.2	Name of the state
Power Construction Corp. of China	45.7	
ACS Activitades de Construction y Servicios	41.4	200
Bouygues	30.9	
Shanghai Construction Group	30.5	
China Metallurgical Group Corp.	30.1	Ö A A A A A A A A A A A A A A A A A A A



sub-Saharan region grew on average by 3%, despite the modest economic state of the area's two main economies: +1.9% in Nigeria and +0.8% in South Africa.

Investment in construction in this region accounts for 3% of the global construction trade. Last year the construction industry grew considerably at a rate of over 4%. The construction boom continued in Egypt's in 2018, most notably in the housing and infrastructures sectors. The construction industry was also moderately dynamic in Israel, Morocco and other North African nations, too.

The economic situation should continue to improve in all North African nations in 2019. Egypt will continue to be the region's best performer with its GDP estimated to grow by 5.5%. Economic growth in the sub-Saharan region of Africa should continue in 2019 reaching 3.5%. Relatively moderate growth in Nigeria and South Africa's GDPs will be counterbalanced by high growth on other emerging markets in the region, notably Ghana and Senegal.

There is expected to be plenty of growth in the construction industry on all markets in the region this year with the growth rate estimated at over 5%. This is the highest rise globally. The market is expected to continue growing throughout Africa, particularly in the public housing and infrastructures sectors. Egypt, Israel, Nigeria and Tunisia are expected to be the most dynamic markets in the region, while the trend in investment in Libya will depend on the nation's domestic stability and safety. If political and social unease is decreasing in this region, investment on the global construction market might rise in both the medium and long-term right across Africa.

FAR EAST AND OCEANIA

The region's GDP grew at a rate of 4.8% in 2018, showing a similar trend to 2017. The economy grew steadily on all emerging markets; indeed, the GDP grew by 6.6% in China, 7.3% in India, 5.1% in Indonesia, and almost 5% in Thailand and Malaysia. The region's main advanced economies also performed well; the growth rates in Australia, New Zealand and Korea were around 3%. Only Japan had to deal with a relatively modest economic situation with its GDP growing by just 1%. Chinese economic growth is expected to slow down slightly this year, while the growth is expected to be strengthened in India and on the rest of the region's main emerging markets. The IMF forecasts a slight decline in growth in the region's most established economies. Nevertheless, the GDP in Australia, New Zealand and Korea will grow at much higher rates than the average for advanced economies. The only exception is Japan, where the growth rate will remain at 1% this year.

Overall investment in the region's construction industry in 2018 is estimated at approximately 4% and should be slightly higher than the figure recorded last year. The construction industry will be affected by the same territorial dynamics as the economy as a whole, i.e. a slowdown in China and strengthening of the other emerging markets. The slowdown in the Chinese construction industry may be attributed to the Government's decision to cut-back operations on the housing market. The positive outlook for the Indian construction industry concerns both the housing sector (driven along by plenty of demand for housing from the Indian middle classes and by social housing plans) and also the civil engineering sector, thanks to the implementation of major investment programmes and infrastructures. The housing and civil engineering industries are also the main drivers behind the construction industry in Indonesia, the Philippines and Malaysia.

Growth in the construction industry on the region's advanced markets in 2019 will be slower than that in emerging countries. Investment in Australia, New Zealand and Korea is expected to be lower than 2%, while the construction industry will basically stagnate in Japan due to the continuing weakness of the housing sector.

The Far East and Oceania jointly account for almost 48% of the region's share of the global construction industry. The graph on top of this page shows that four of the six biggest construction markets in the world are in Asia. China is by far the world's biggest market, worth over twice its US counterpart. The forecast growth rates for the Asian construction industry over the next few years are higher than the world average; this will lead to a further increase in this region's market share as it continues to be a key player in the growth of the global construction market in the near future.

Asia's role in the global construction industry can also clearly be seen by studying the turnovers of the 10 biggest international contractors. Seven out of these ten companies are indeed Chinese, while the remaining three are European.

As well as playing a dominant role in the Asian market's growth, the main players in the Far East's construction industry are increasingly focused on the international market; they mainly operate in developing nations, where Asian contractors are building major infrastructures.

Francesco Doria. Market Research Manager, Mapei SpA (Italy)





BAU 2019 The building industry at 360° by Mapei

This year Bau, a leading trade fair for architecture, materials and systems that takes place every two years, was held from the 14th to the 19^{th} of January in Munich (Germany).

On an exhibition space totaling 200,000 m² for the first time, 2,250 exhibitors from 45 countries showcased their products and solutions for the building sector. Visitor numbers reached 250,000, with the figures for visitors from outside Germany climbing to 85,000, from over 150 countries. With almost 70,000 participants, one in four visitors came from the areas of architecture, engineering and planning.

At this important event Mapei was present with its systems and its most recent releases for the building industry. The company's presence highlighted that Mapei has experience of every sector of the building industry with products and solutions that provide excellent performance and the highest level of durability.

Most of Mapei products have very low emission of volatile organic compounds (VOC), are certified EMICODE EC1 Plus and Blauer Engel and play an important part in earning green credit ratings all around the world (LEED, BREEAM, WELL).

RENOVATION OF MASONRY

One of the highlights of Mapei's stand at Bau 2019 was the company's wide range of systems designed for the restoration and protection of masonry structures damaged by salts and rising damp. MAPE-ANTIQUE, the lime and Eco-Pozzolan-based family of products containing absolutely no cement, is ideal for consolidating, renovating, dehumidifying and rendering existing masonry, including buildings of historical and artistic interest covered by protection orders from Heritage Bodies. And also for masonry buildings, Mapei recently introduced

2,250 exhibitors

250,000 visitors

A successful edition: the Mapei





stand became a meeting point for various sector operators

POROMAP DEUMIDIFICANTE, a ready-mixed powdered mortar used to make macro-porous and insulating renders made from special, Pozzolan-reaction and salt-resistant hydraulic binders, natural sand, lightweight aggregates and special additives.

Among the new products at Bau 2019 one finds MAPESTOP CREAM, a monomeric silane-based creamy emulsion for creating chemical barriers against capillary rising damp. The active components contained in MAPESTOP CREAM penetrate into the substrate and react with the silica in masonry to form a hydrophobising barrier that expands and blocks rising damp without affecting the breathability of masonry.

REPAIR AND PROTECTION OF CONCRETE

Mapei has various specific solutions available for every type of concrete structure, whatever their particular needs: from work on residential buildings to bridges and viaducts. For the repair and protection of reinforced concrete in residential buildings,

for example, Mapei showcased at Bau 2019 MAPESHIELD E, the cathodic protection system with galvanic anodes to prevent corrosion of steel reinforcement rods, and MAPELASTIC two-component, elastic, waterproofing cementitious mortar. For quick repairs to reinforced concrete structural elements Mapei proposed PLANITOP SMOOTH & REPAIR R4, a rapidsetting, fibre-reinforced, thixotropic, class-4 structural cementitious mortar.

And for repair work and the protection of reinforced concrete on structures such as bridges and viaducts, Mapei proposed a galvanic cathodic protection system including MAPESHIELD I pure zinc anodes and MAPEGROUT EASY FLOW, the onecomponent, fibre-reinforced, sulphate-resistant, thixotropic mortar particularly recommended for application by using a spray rendering machine, and MAPELASTIC GUARD, a twocomponent, flexible cementitious mortar for protecting large concrete structures subjected to high stress.

To level off and protect exposed concrete, Mapei proposed





PLANITOP FINE FINISH, the rapid-hardening, ultra-fine textured skimming mortar for smoothing over surface defects such as gravel clusters and second pours without altering the surface finish.

SKIMMING AND PROTECTING SUBSTRATES

For skimming substrates such as render, old paintwork and concrete, as well as ceramic and glass mosaic wall coverings, Mapei proposed at Bau 2019 the PLANITOP line of cementitious products for smoothing over different types of substrate, available in white and grey. Amongst the various solutions available for strengthening floor slabs and making them safe Mapei highlighted PLANITOP HPC FLOOR, the revolutionary fibrereinforced cementitious mortar for repairing and strengthening horizontal structures where high-performance, free-flowing mortar is required to integrate thick layers or fill complex areas without the need for electro-welded reinforcing meshes.

SEAMLESS RESIN AND CEMENTITIOUS FLOORS

Mapei's proposal for seamless flooring is extensive and differs according to their various areas of use. The floors made with Mapei systems are of extra-high quality from an aesthetic and technical point of view and are versatile, resistant to abrasion, impact loads and chemicals. They are also available in various colours to satisfy any designer's needs.

MAPEFLOOR SYSTEM is the family of resin-based systems proposed by Mapei for commercial, residential and industrial floors in the chemical, pharmaceutical, food and beverages and mechanical sectors and for underground carparks, entrance halls, office spaces and showrooms. Floors made using the MAPEFLOOR SYSTEM give their best in the industrial sector when exposed to heavy traffic and aggressive chemicals and guarantee a high level of durability.

A COMPLETE RANGE OF PROPOSALS FOR THE BUILDING INDUSTRY

Bau makes its mark every two years for the continuous evolution in materials for every specific area of use.

The first thing that struck you this year when visiting the various stands was the concrete perception of the evolution of materials that seems to be increasingly connected to an evolution in the building industry, not only as far as the approach to design is concerned, but rather for the various construction activities.

A growing attention is paid to users and appliers, suggesting new, better performing materials that are easier to install with technical characteristics that are easy to understand and remember. Many com-

panies have made wide use of images and videos to explain their various proposals as clearly as possible. This tendency has led to some companies to use touch-screens to deliver messages and contents more similar to those seen in the world of social media, leaving users free to choose and find out more about the contents more simply and autonomously, more in line with their own needs.

The design of the Mapei stand expressed the wide range of proposals for the building world thanks to clear, well-balanced messages scrolling along the large wall featuring LED and plasma screens. The striking impact of the space and the simplicity of the solutions proposed, sub-divided into lines of sales, made it simple and immediate for visitors to take it all in and to understand the more technical aspects, thanks to the use of mini hoardings and having the showcased product represented by its packaging.

Another strong point of the stand were the practical demonstrations that were held constantly and repeatedly throughout the day, a way of showing Mapei's capacity to dialogue with various representatives of the world of building.

Marco Manzoni. Mapei SpA (Italy)

and systems to meet a host of construction needs

For floor and wall coverings in the commercial sector, such as shops, showrooms, restaurants, museums and apartments, Mapei proposed at Bau 2019 ULTRATOP cementitious systems for seamless commercial and decorative floorings, highly resistant to abrasion in areas subjected to intense pedestrian traffic.

INSTALLATION OF CERAMIC TILES AND STONE

Showcased at Bau 2019 were also the rapid, lightweight Mapei systems for installing ceramic tiles (including large-size tiles) over existing systems and heated floors.

ULTRALITE is a line of lightweight Mapei adhesives presented at Bau for the rapid installation of ceramic tiles over existing floorings. They are specially formulated with 20% of recycled material to have a lower impact on the environment and, to



safeguard the health of floor layers, they also include Low Dust technology to dramatically limit the amount of dust given off when mixing the product. ULTRALITE adhesives also help to earn LEED award points.

ULTRALITE adhesives are also recommended for installing ceramic tiles over heated floors made from NOVOPLAN MAXI, a fibre-reinforced, levelling mortar with high thermal conductivity. Heating and cooling systems made from NOVOPLAN MAXI are suitable for installing ceramic, natural stone, and pre-finished wooden flooring.

And last but not least, when it comes to installing natural stone, Mapei proposes the cementitious adhesive KERAQUICK MAXI S1. This is a rapid-setting, class C2FT S1 product according to EN 12004 standards which offers high performance properties when installing marble, natural stone, engineered stone and ceramic coverings. To complete the installation, Mapei proposes combining it with ULTRACOLOR PLUS, a grout for joints which features anti-mould BioBlock® and DropEffect® technologies to prevent absorption of surface water, and stain-resistant MAPESIL LM sealant for expansion joints, also with BioBlock® technology.

WATERPROOFING BUILDINGS, FROM **UNDERGROUND TO THE ROOFTOP**

Mapei has an extensive range of waterproofing systems available for new builds and for restoring existing buildings, both above and below ground level. Mapei showcased at Bau 2019 two systems in particular for waterproofing underground structures: MAPELASTIC 2KR two-component flexible mortar (which is manufactured and distributed in Germany by Mapei GmbH) and PLASTIMUL solvent-free bitumen waterproofing emulsion for waterproofing foundations and bearing walls in compliance with the requirements of the current standards.



Installing ceramics, resilient materials, wood and much more

The mortars from the MAPELASTIC family are recommended for waterproofing terraces, balconies and bathrooms, and are just as effective on new builds as in restoration work on existing surfaces

And lastly, for waterproofing roofs, Mapei proposes the MAPEPLAN range of synthetic membranes which guarantee high mechanical strength and resistance to low temperatures as well as excellent workability and weldability.

INSTALLATION OF RESILIENT MATERIALS AND LVT

This year at Bau Mapei also exhibited innovative adhesives for resilient materials, LVT, SPC and rigid LVT. Among them was ULTRABOND ECO V4 EVOLUTION, the new universal "all-inone" adhesive for installing all types of resilient and textile floor and wall coverings, particularly suitable for modular LVT.

On the other hand, ULTRABOND ECO MS 4 LVT WALL is a revolutionary Mapei adhesive, the only one of its kind in the sector, for installing LVT on floors and walls, which is particularly suitable for floors and walls constantly exposed to water, such as those in bathrooms and showers.

And lastly, for the LVT market, Mapei proposed ULTRABOND ECO TACK 4 LVT pressure sensitive, permanent tack adhesive for loose lay floorings in planks and tiles, now improved with a new formula: even more rapid, easier to apply and with better tack

INSTALLATION AND MAINTENANCE OF WOODEN FLOORING

For the wooden flooring market, Mapei presented at Bau 2019 the new range of silylated adhesives, all completely free of water, solvent, amines and epoxy resin, and with very low emission of volatile organic compounds (EMICODE EC1R PLUS), for the installation of all types and formats of wooden flooring on any type of substrate.

The range of adhesives complies with Euronorm 14293 in the Soft and Hard categories and with ISO standards in the Hard and Hard-elastic categories. It includes ULTRABOND ECO S958 1K and ULTRABOND ECO S LITE.

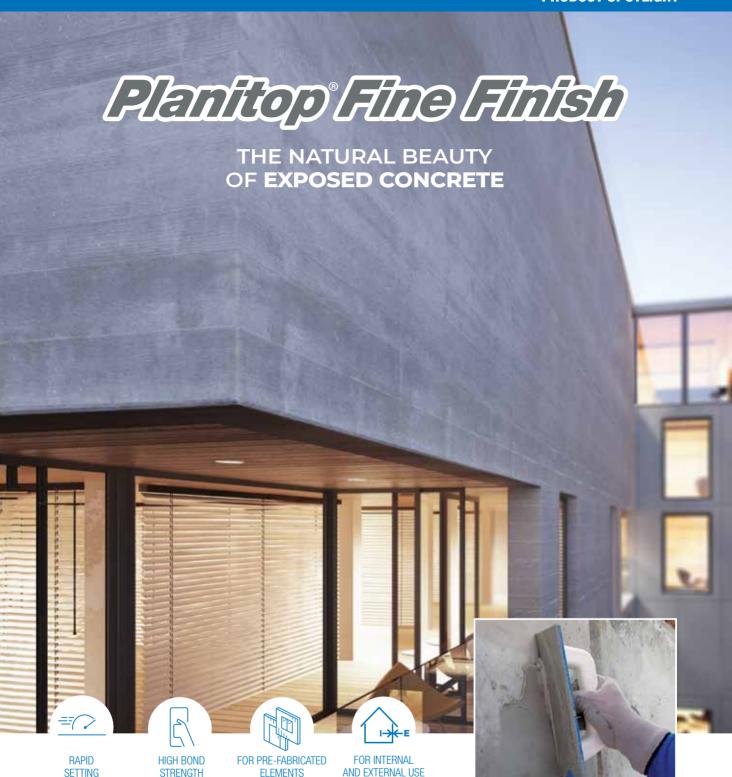
The real innovation is represented by ULTRABOND S ECO PLUS, the only one-component, silylated polymer-based adhesive with no methanol emissions.

Amongst the other proposals is ULTRACOAT OIL COLOR lowodour urethane oil finish for colouring wooden floors. It may be painted over with the two-component finishes from the ULTRACOAT line, 100% water-based, non-yellowing varnishes used in civil and commercial surroundings subjected to medium and intense volumes of traffic.

MAPEI SOLUTIONS FOR CONCRETE ELEMENTS AND STRUCTURES

Amongst the numerous proposals presented at the last edition of Bau there were also solutions for the construction of major underground structures and admixtures for ready-mixed and pre-cast concrete. Products from the RE-CON line of are a part of the Mapei concrete admixtures line: admixtures used to recover returned concrete and to prepare concrete with clay bearing aggregates. At Bau 2019 Mapei also showcased its complete, high performance systems for the industrial flooring sector. The MAPECRETE SYSTEM is a technology created by Mapei to make industrial flooring without (or with few) joints and dimensionally stable structures. The system reduces the number of weak spots in concrete and increases its durability, thereby extending its service life.

The next edition of Bau will take place in Munich from the 11th to the 16th of January, 2021.



Planitop Fine Finish is the **ultra fine-textured skimming mortar** to maintain the "exposed" effect finish of concrete with surface defects, such as honeycombing and construction joints. **Result: smooth**, **even surfaces with no imperfections**.

EVERYTHING'S OK WITH MAPEI







The first universal ALL-IN-ONF adhesive for all types of resilient flooring was presented

ALSO FEATURED THE ONLY ONE-COMPONENT. SILYLATED POLYMER-BASED ADHESIVE WITH NO METHANOL EMISSIONS FOR WOODEN FLOORS

The latest edition of Domotex - the world's leading showcase for carpets and floor coverings - took place from the 11th to the 14th of January in Hannover (Germany) - has underscored its reputation as the sector's biggest and most important hub for business, innovations and trends.

Over 1,400 exhibitors from more than 60 nations came to Hannover to kick off a successful new year of business. With close to 90% of all attendees having decision-making authority, the caliber of the show's visitors remained extremely high. Due to growing market concentration, Domotex recorded a slight dip in attendance. According to the exhibition survey, the order situation of exhibitors remained constant, while the purchasing



volume per visitor went up. About 70 percent of all Domotex attendees once again came from abroad - a clear sign of the flagship fair's international appeal. In terms of visitor backgrounds, attendance was notably up on the part of wholesale and retail professionals. The figures also revealed an increase in attendance by architects, interior designers and contract business professionals. In addition, Domotex 2019 saw an increase in the amount of display space sold.

CREATE'N'CONNECT was the keynote theme of Domotex 2019, focusing on the social megatrend of connectivity. Rapidly increasing connectivity is influencing all aspects of life. It is disrupting existing communication structures, creating new connections beyond cultural and social boundaries, and allowing an unprecedented insight into companies and organizations. What impact does the megatrend connectivity have on the shaping of our environment? It goes without saying that floors play a significant role. They support us, inspire us and quide us. And they connect us. CREATE'N'CONNECT embodied the interplay between traditional manufacturing techniques and modern designs, the multifunctional design of living spaces and smart flooring solutions. Technologies for installing



floors, like those offered by Mapei, create new possibilities as people are getting ever more involved in choosing products for their floors.

ECO-SUSTAINABLE MAPEI SYSTEMS

Mapei was on show at the 2019 edition of Domotex with a host of new products for operators from the sector and a range of systems for completing the installation of resilient and wooden flooring that have been developed thanks to the Company's many years of experience in the sector of adhesives and materials for installing resilient, textile, LVT and wooden floor and wall coverings. The products that Mapei presented in its wide stand have been created and developed to be safe for both those who apply them and for those who use the areas where they have been applied and to provide superior living comfort. Most of Mapei products have very low emission of volatile organic compounds (VOC) and are certified EMICODE EC1 Plus and Blauer Engel. They also have their own industry-wide EPD (Environmental Product Declaration), a special document that declares the impact they have on the environment throughout their whole life-cycle, measured according to standardized LCA (Life Cycle Assessment) methods.

Mapei products also play an important part in earning green credit ratings all around the world (LEED, BREEAM, WELL).

In the spotlight **Ultrabond** ECO V4 **Evolution** for bonding resilient floorings





THE UNIVERSAL ALL-IN-ONE ADHESIVE BETTER THAN THE BEST



From the Mapei R&D laboratories we bring you **Ultrabond ECO V4 EVOLUTION**, the new universal "ALL-IN-ONE" adhesive for bonding **all types of resilient floor and wall coverings**, ideal for installing modular LVT. Rapid, strong initial tack, extended open time, good dimensional stability and a strong, tough final bond: **the best performance from a unique formula**. **Make the difference with Mapei**, your partner in construction.

EVERYTHING'S OK WITH MAPE









PRODUCTS FOR LVT, RESILIENT AND TEXTILE MATERIALS

At Domotex 2019 Mapei introduced ULTRABOND ECO V4 EVOLUTION, the new, universal all-in-one adhesive for installing every type of resilient wall and floor coverings. Particularly suitable for modular LTV, with its fast and strong initial tack and extended open time it is recommended for use in residential, commercial and industrial settings.

ULTRABOND ECO MS 4 LVT WALL is also a revolutionary adhesive, the only one of its kind in the sector, for installing LVT on floors and walls in damp surroundings. This year at Domotex, Mapei presented its new, improved formula which is easier to apply and makes it suitable for installing SPC and rigid LVT.

For the LVT market, Mapei also showcased ULTRABOND



ULTRABOND ECO V4 EVOLUTION

the all-in-one adhesive for installing every type of resilient coverings, including modular LVT



ULTRABOND ECO MS 4 LVT WALL

a revolutionary adhesive, for installing LVT in damp surroundings



ULTRAPLAN FAST TRACKUltra-fast drying self-levelling

compound for thicknesses from 1 to 10 mm



ULTRAPLAN FAST TRACK ULTRABOND ECO S PLUS

silylated polymer-based adhesive, free of water, solvent, methanol emissions and amines, for bonding wooden floors



ULTRABOND ECO S LITE

solvent-free silylated polymerbased adhesive for bonding wooden floors

ECO ADHESIVES FOR **QUALITY LIVING**



Mapei presents its new one-component, silylated polymer-based adhesives, for perfect installation that guarantees a strong grip, quality and respect for the environment with every type of wooden flooring.

Ultrabond Eco S958 1K, that complies with ISO 17178 standards in the hard-elastic category - Ultrabond Eco S Plus with no methanol emissions - Ultrabond Eco S Lite lightweight adhesive with an extremely high yield.

Make the difference with Mapei, your partner in construction.

EVERYTHING'S OK WITH MAPEI





DOMOTEX 2019

FOCUSING ON **SPC**, RIGID LVT, AND **COLOURED FINISHES FOR WOOD**

In spite of being held in the same year as the Bau exhibition. Domotex still managed to attract a lot of companies wanting to showcase out the latest trends in wooden and resilient floorings.

The Mapei stand placed the emphasis on its latest offerings thanks to the use of targeted artwork and images to present its products. The simplicity of the way the latest offerings were presented and the way the products themselves and their main characteristics were highlighted gave visitors a clear picture of how they are used and applied. In the resilients sector. setting the tone were the new proposals for SPC and rigid LVT, which stand out for its rigidity and weight compared with the

more traditional LVT. The resilients sector has evolved so much that it is now possible to choose patterns with similar characteristics to wood, stone and cementitious floors. Modular LVT (also called "mosaics") also seem to have found their own space by combining strength and practicality with striking aesthetic effects.

As a way of demonstrating the evolution of Mapei adhesives and the latest offering, ULTRABOND ECO V4 EVOLUTION, we had part of the wall and floor of the stand covered with modular LVT.

The Mapei solutions for installing resilient materials in bathrooms and damp areas (including in showers on existing ceramic coverings) was highlighted in another part of the stand. Also showcased at the exhibition were the new proposals of coloured finishes for wooden floors, mainly oils, to confirm the trend of exalting the characteristic naturalness of wood.

Innovating to remain in line with sustainxable choices, which often pushes designers into choosing this material, was the reason for proposing two new Mapei adhesives, the only ones of their kind on the market: ULTRABOND ECO S PLUS and ULTRABOND ECO S LITE. The practical demonstrations also met with great suc-

Marco Manzoni. Mapei SpA (Italy)

ECO TACK 4 LVT permanent tack adhesive, now even better with a new formula: even more rapid, easy to apply and with better tack, recommended for installing looselay LVT, SPC and rigid LVT. Also in the spotlight was SHOWER SYSTEM 4 LVT for waterproofing substrates and installing LVT, SPC and rigid LVT in bathrooms and damp settings in general: there are three complete systems (SHOWER SYSTEM 4 LVT1, 2, 3) and include **Ultrabond ECO S Plus** is completely free of methanol emissions

three different types of waterproofing products which are already part of the Mapei range, ULTRABOND ECO MS 4 LVT WALL adhesive, KERAPOXY 4 LVT grout and MAPECOAT 4 LVT anti-slip finish.

BONDING AND FINISHING WOODEN FLOORS

For the wooden flooring market, Mapei presented the new si-Ivlated adhesives ULTRABOND ECO S958 1K, ULTRABOND ECO S LITE and ULTRABOND ECO S PLUS, all completely free of water, solvent, amines and epoxy resin, and with very low emission of volatile organic compounds (EMICODE EC1 R PLUS). This range of adhesives complies with European standard EN 14293 in the Soft and Hard categories and with ISO standards in the Hard and Hard-elastic categories and are recommended for bonding all types and formats of wooden flooring on any kind of substrate. ULTRABOND ECO S958 1K is a one-component, silylated polymer-based adhesive, classified as hard-elastic according to ISO 17178 standards.

ULTRABOND ECO S LITE is a one-component silylated polymer-based lightweight adhesive with an extremely low density, which means much lower consumption of product per square metre. Real innovation was represented by ULTRABOND ECOS



IN THIS PICTURE. Angelo Giangiulio (right) and Giordano Mariani (left) from the Wooden Floor Line of Mapei SpA and Chris Yperlaan, Product Manager Sport Line for Mapei Nederland

PLUS, the only one-component, silylated polymer-based adhesive with no methanol emissions, a further safeguard for the health of floor layers and the environment. With this adhesive, Mapei is anticipating the terms for certification by making it completely free of methanol emissions. ULTRACOAT OIL COLOR, low-odour urethane oil finish for colouring wooden floors, may be recoated with two-component finishing products from the ULTRACOAT line, 100% water-based, non-yellowing varnishes.

PRODUCTS FOR SUBSTRATES

Domotex 2019 was also the occasion to present Mapei binders and pre-blended mortars for screeds, primers, smoothing compounds and complementary products for the preparation of substrates before the installation of wooden and resilient materials.

The next edition of Domotex will take place in Hannover on 10th-13th January, 2020.

Lots of installation friends in Germany

MOVING FORWARD CONFIDENTLY ON A PROMISING MARKET

The general picture is not as encouraging as it was in the past. After at least sixteen years of almost uninterrupted growth (with the exception of the 2009 recession) and a GDP that has increased on average by approximately 1.7% and by 2.1% in 2017, the forecasts for the German economy in 2018 have been revised downwards: they are now talking about a rise of 1.5% instead of 2.2% for the GDP in 2018, which is actually a lower rate than the average for the member states of the European Union.

After years of uninterrupted growth, Germany finally seems to be slowing down and the GDP is only expected to grow by 1% in 2019 according to the German Minister of Economy. Nevertheless, there are still plenty of positive signs. For example, there is expected to be a drop in the number of unemployed to around 3% in 2020: the lowest rate among all countries in the European Union, except for Poland and the Czech Republic.

According to the OECD, the German economy will remain solid thanks to fiscal stimuli and a real commitment to creating

jobs. Private consumption will increase thanks to a rise in salaries and miscellaneous tax measures that will help boost disposable income for families. Low interest rates, high capacity utilisation and growing household demand will all support growth in the housing industry. Indeed, all the sins for the German construction industry are positive. In 2018 it grew considerably by almost 3%, a rate that should continue more or less unvaried over the next two years.

MAPEI HAS BEEN THERE FOR A WHILE

Germany, which for years now has been one of Europe's economic powers and one of the most promising European markets for the building industry, has always been at the focus of the Mapei Group's attention. Back in the 1970s, the company took part in several specialist German trade fairs for the building industry and then began supplying German customers with its products through production plants run by its Austrian subsidiary (in Nussdorf ob der Traisen) and

"IT DOES NOT MATTER WHAT KIND OF MATERIAL THEY NEED INSTALLING OR WHAT SIZE IT IS. PROFESSIONAL INSTALLERS CAN FEEL TOTALLY CONFIDENT WHEN THEY USE MAPE! SYSTEMS: WE ALWAYS HAVE THE RIGHT SOLUTION"

Bernd Lesker, Technical Services at Mapei Gmbh

French subsidiary (Montgru Saint Hilaire), as well as the parent company's own manufacturing plant in Robbiano di Mediglia, near Milan.

Shortly after the unification of the two Germanies back in 1992, Mapei Deutschland GmbH started its operations in Leipzig. A few years later, a manufacturing plant was also opened in Weferlingen in Sachsen-Anhalt in what was formerly East Germany. The area of approximately 8000 m² taken up by the production facility was once owned by a manufacturer of silica sand, which was subsequently used as one of the ingredients in the formulas for Mapei products. Since then, Mapei Deutschland, now





LEFT. The campaign "Freunds fürs Legen" promotes Mapei as a reliable and competent partner. **RIGHT.** The "Quick Guide" for the installation of wooden surfaces prepared by Mapei GmbH for installers of wooden floors.



Mapei GmbH's manufacturing nlant in Weferlingen. RIGHT. Mapei GmhH's headquarters in Großostheim, in Bavaria.

IN THE MIDDLE.

The German subsidiary strongly invests into training, by using both seminars and webinars.

known as Mapei GmbH, has grown at a steady rate and now boasts about 230 staff, a turnover of approximately 95 million euro and a manufacturing output of 135,000 tons-a-vear.

In order to meet the demands of German professionals, the German subsidiary, which is now based in Großostheim in Bavaria, also has a Technical Services office in Bottrop in North Rhine-Westphalia. Mapei GmbH also has a training centre in Kleinwallstadt, again in Bavaria, emphasising just how seriously the company takes training. The subsidiary organises courses, seminars and workshops at its training centre, its customers' facilities or on the building sites where they operate. Mapei GmbH also has an online training platform: its technicians hold webinars to discuss such "hot" issues for the German building industry as DIN standards or new trends in installation and coatings, not to mention the proper use of Mapei products.

"INSTALLATION FRIENDS" **AND MUCH MORE**

All the German subsidiary's manufacturing operations are focused on working closely with its customers: this is evident not just in heavy investment in training, but also in the "Freunde fürs Legen" (Installation Friends) campaign launched last autumn. The underlying idea is to promote Mapei not just as a supplier of innovative, high-quality solutions, but also (and above all) as a reliable and competent partner that can help customers take on their day-to-day professional challenges. The Key Visual chosen for the campaign shows five hands placed on top of each other, a symbol of friendship and cooperation that also represents the five stages generally involved in installation: priming, levelling, waterproofing, bonding and





grouting (for ceramics) or, alternatively, priming, levelling, waterproofing, bonding and finishing surfaces (for wooden floors). The campaign is intended to be fun as well as informative, so it rewards Mapei partners through special promotions and also custom-made bracelets and jackets.

The "Wir machen es einfach GROSS" project has also been a great success in Germany, placing Mapei expertise and solutions at the service of professionals getting to grips with installing large-size ceramic tiles or stone slabs. The project includes various training sessions and a poster showing how these coverings can be installed in five simple steps.

German installers of wooden floors are also the focus of a special campaign called "Parquet installed in craftsman-like fashion in five steps, from the substrates to the surfaces", complete with a special brochure and "Quick Guide" to show the ideal Mapei systems and products for every type of wood and substrate, once again stressing the importance of teamwork with reliable partners like Mapei.

Creative ideas and a promising market: the right foundations for a successful future for Mapei in Germany.

THE FACTS **AND FIGURES OF MAPEI GMBH**

HEADOUARTES IN GROBOSTHEIM

TRAINING CENTRE IN KLEINWALLSTADT

5 MILLION EUROS **TURNOVER IN 2018**

230 STAFF 130,000

TONS/YEAR MANUFACTURING OUTPUT

From Saxony to Baden-Württemberg

OVER THE COURSE OF THE LAST YEAR, MAPEI HAS AGAIN PLAYED A KEY ROLE IN THE CONSTRUCTION OF A WIDE RANGE OF BUILDINGS INVARIOUS GERMAN REGIONS: HOTELS, SHOPS, INFRASTRUCTURES, FACTORIES AND MANY MORE



WÜRTH CANTEEN KÜNZELSAU (BADEN-WÜRTTEMBERG)

Inside this complex, which is the headquarter of the parent company of the Würth Group, Adolf Würth GmbH & Co. KG, there is a modern canteen for the company's 700 employees and outside visitors and guests. In order to make this area more welcoming and comfortable. renovation work was lately carried out in the canteen and in the kitchen, which included the installation of large format ceramic tiles which had to be completed in a relatively short space of time. To overcome the technical problems caused by having to install the tiles within a tight schedule on a circular surface, ULTRALITE S2 QUICK was used to bond the tiles and ULTRACOLOR PLUS was used to grout the joints. For the kitchen, on the other hand, products that would be able to resist the action of aggressive chemicals and wear were chosen, such as PRIMER MF for the substrates, MAPEGUM EPX to waterproof surfaces, KERAPOXY ADHESIVE to install the tiles and KERQAPOXY CQ to grout the joints.



SEEHOTEL

ELBE-PAREY (SAXONY-ANHALT)

Thanks to the new Seehotel, in the town of Elbe-Parey, tourists can now enjoy a "floating" holiday overlooking Lake Mühlensee. Five apartments suspended over the waters of the lake offer all the comforts you would expect, including showers with LVT coverings installed using the innovative Shower System 4 LVT1 by Mapei. Waterproofing of the substrates has been guaranteed by using MAPEGUARD WP 200 membrane, MAPEGUARD ST sealing tape, special MAPEGUARD IC/EC corners and MAPEGUARD WP ADHESIVE. The LVT coverings were installed on floors and walls with the brand-new one component sililated polymer based adhesive ULTRABOND ECO MS 4 LVT WALL, while sealing and protection for the surfaces was guaranteed by the transparent protective finish MAPECOAT 4 LVT, which leaves surfaces with a non-slip finish (slip resistance rating R11 in compliance with DIN 51130 and AS 4586 standards and barefoot slip resistance rating B in compliance with DIN 51097 and AS 4586 standards).



CITY TUNNEL KARLSRUHE (BADEN-WÜRTTEMBERG)

Within the framework of the Kombilösung project to strengthen and extend the city's public transport system, various new tunnels have been constructed in Karlsruhe. Excavation of the tunnel running under Karl-Friedrich-Strasse was carried out in an overpressure atmosphere to displace the upcoming groundwater. A special requirement was to minimize the loss of compressed air via the shotcrete outer shell. Despite the high quality of the shotcrete outer shell, the compressed air consumption increased along with the length of the excavated tunnel. This was due to the number and size of cracks and joints. Shrinkage cracks and system-related construction joints were sealed with MAPELASTIC TU SYSTEM for an area of approximately 2,000 m2: the compressed air consumption could be consequently reduced by approx. 40 %.



SUZUKI ALTZSCHNER SHOWROOM NEUKIRCHEN-VLUYN (NORTH RHINE-WESTPHALIA)

For more than 30 years, this showroom has been offering a wide choice of new and used motorcycles, accessories and spares over an area of more than 300 m². The floors in the showroom were recently renovated in order to have more modern looking surfaces that are easier to clean and more resistant to the constant wear and loads associated with the showroom's sales and maintenance activities. For this reason, the substrates were treated with PRIMER SN before broadcasting the surface with QUARTZ 1.2 sand. A layer of ULTRATOP self-levelling mortar made from special hydraulic binders was then applied to create floors with a highly materic finish and good resistance to abrasion. For the final finish, the floor was treated with MAPEFLOOR FINISH 52 W and MAPEFLOOR FINISH 58 W.





Hamburg

THE FONTENAY HOTEL

THE SOPHISTICATED FLOOR CREATIONS IN THIS LUXURY HOTEL WERE IMPLEMENTED USING MAPEI PRODUCTS

The Fontenay is a true city hotel. It opened in March 2018 and is located in the heart of Hamburg. The five-star hotel was designed by Hamburg architect Jan Störmer, whose firm Störmer Murphy and Partners, together with the Milan-based interior designer Matteo Thun, won an international competition for the hotel building in 2013.

The Fontenay reflects modern Hamburg and is a tribute to the Hanseatic city. The hotel offers 131 guest rooms and suites, two restaurants, a bar, an exclusive spa area and four event rooms of different sizes.

The Hamburg entrepreneur Klaus-Michael Kühne has erected it with the aim of creating the best hotel in Germany. Luxury was planned and integrated down to the fine detail.

The best surfaces, top quality materials and perfect craftsmanship give the new Hamburg luxury hotel a magnificence that extends down to the flooring.

EXCEPTIONAL HOTEL, EXCEPTIONAL FLOORINGS

The innovative, sculptural design of the hotel, its organic architectural style comprising a multitude of sweeping curves required a great deal of interior customisation. A harmonious interior colour scheme uses light beige tones, green onyx walls, and warm white nuances as well as turquoise accents and royal blues mirroring the hotel's natural surroundings. The elegant "terrazzo alla Veneziana" flooring in the public areas, and wooden flooring variants in the suites and restaurants were also specially designed and manufactured for the hotel.

The terrazzo flooring has been given a light beige tone with "Botticino" granulate and blends harmoniously into the prestigious ambience. It covers more than 1,500 m² of public spaces – including the stairs – and was installed in multiple steps using ULTRATOP EXTRA WHITE self-levelling mortar. The system proposed by Mapei includes PRIMER SN and ULTRATOP self-





levelling topping mortar.

In combination with natural additives developed in the Mapei Research & Development laboratories and by roughing and polishing the surfaces, the floor-layers achieved a "terrazzo alla Veneziana" effect. In addition to the special aesthetic effect, ULTRATOP is characterized by its high mechanical strength.

The aesthetic effect impressed the clients and architects so much that they decided to cover parts of the luxurious Fonteney SPA world with the same floor type. Here, the "Terrazzo alla Veneziana" floor was produced using ULTRATOP and the "Bianco Cristallo" additive for a radiant white look.

A true one-off of exquisite beauty is the wood parquet from the Italian manufacturer Margaritelli laid in elaborate hexagon forms in the guest rooms. Custom designed for The Fontenay, the wooden flooring creates a wood structure that differs from traditional ones, adding a touch of elegance. An unusual detail is the oak originating from the forests of Fontenay Abbey in France.

The client's requirements regarding sustainability resulted in the floor layers using certified Mapei products. The substrate was primed with ECO PRIM PU 1K TURBO one-component, quick drying, solvent-free, moisture curing polyurethane primer with very low emission of volatile organic compounds (VOC). ULTRABOND ECO S955 1K one-component, solvent-free, sililated polymer-based adhesive with a very low emission level of VOC was used to bond the wooden floors.

PHOTO 1. The floor in the lounge was made with ULTRATOP EXTRA WHITE.

PHOTOS 2 AND 3. The wooden floor in the bar was bonded with ULTRABOND ECO S955 1K.

PHOTO 4. The wooden floor with hexagonal patter was installed in the bedrooms with ULTRABOND ECO S955 1K.

TECHNICAL DATAThe Fontenay Hamburg,

Hamburg (Germany)

Period of construction: 2016-2017

Period of the Mapei

intervention: 2016 – 2017 Client: Kühne Immobilien

GmbH

Design: Störmer Murphy and

Partners

Interior designer: Matteo Thun & Partners (design),

Aukett + Heese GmbH

General contractor/Project

and construction manager:
DIG Deutsche Innenbau GmbH

Cementitious flooring contractor:

Marmorveredelung Foerg & Weisheit GmbH

Mapei coordinator: Olaf Enke, Mapei GmbH (Germany) **Photos:** The Fontenay

Hamburg

MAPEI-PRODUCTS

<u>Preparation of substrates for cementitious floorings:</u> Primer

SN, Quartz 1.2

Building cementitious floors: Ultratop, Ultratop Extra White Preparation of substrates for wooden floors: Eco Prim PU

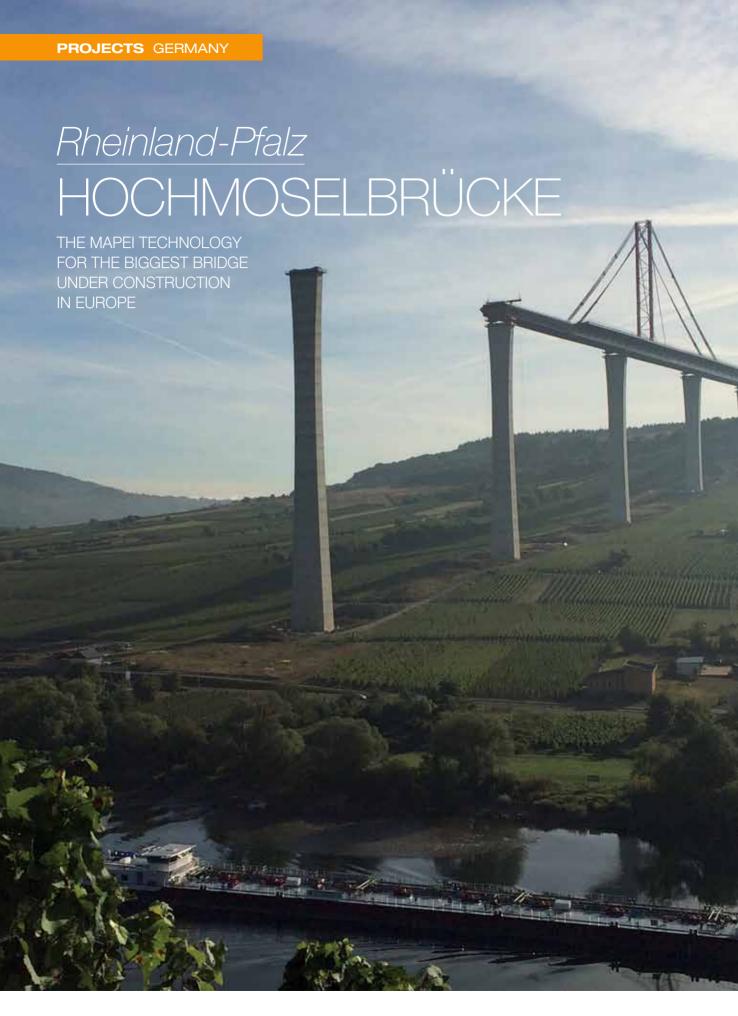
1K Turbo

Installation of wooden floors: Ultrabond Eco S955 1K

For further information on products see www.mapei.com and www.mapei.de











The Hochmoselbrücke is the largest bridge currently under construction in Europe and will allow travelers to cross the River Moselle, a tributary of the Rhine, along the Bundesstraße 50 trunk road at a height of 158 m above the river. Geological surveys have found that the ground around the area is moving by around 0.6 mm each year at a depth of 22 m, which meant it was necessary to construct two drainage wells to protect the surrounding hills and their vineyards. The wells are 6 m in diameter and were built in two rows between pillars 2 and 3 down to a depth of around 40 m.

To make the shotcrete for the wells, MAPEQUICK AF 1000 set accelerator and MAPESTART 1, a pumping aid admixture, were also used.

PHOTO 1. Two drainage wells were constructed to protect the surrounding hills and their vineyards. PHOTO 2. A 40 m deep well seen from above.

PHOTO 3. Applying shotcrete in one of the drainage wells.

TECHNICAL DATA

Hochmosel bridge, Ürzig-Zeltingen-Rachtig (Germany) Client: Landesbetrieb Mobilität Rheinland-Pfalz

Period of construction:

2016-ongoing

Period of the intervention: 2016-2017

Contractor: Wayss & Freytag Ingenieurbau AG

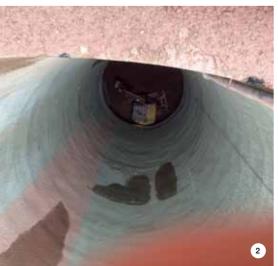
Intervention by Mapei:

supplying products for shotcrete Mapei coordinator: Thomas Rieger, Mapei GmbH (Germany)

MAPEI PRODUCTS

Admixtures for concrete: Mapequick AF 1000, Mapestart 1

For further information on products see www.mapei.com and www.mapei.de







CRAFTSMAN INSTALLATION AND VARNISHING OF WOODEN FLOORING IN TWO PRESTIGIOUS ROOMS BROUGHT BACK TO THEIR FIN DE SIÈCLE SPLENDOUR



Inaugurated on the 12th of January 1905, Sanremo Casino – one of only four licensed casinos in Italy – is a Liberty-style building designed by the French architect. Eugène Ferret.

Two more rooms were added in 1928; the Privè room and the Privatissimo room. Today, ninety years on, the renowned Privata room and Dorata room have been given a new lease of life following painstaking restyling work to guarantee the players' safety and enhance their glamour and elegance.

A completely new space has also been created: the Bistrot, which opens up onto the historic terrace of the main façade.

The prestigious rooms, which were inaugurated in May last year, feature roulette tables and traditional card tables where visitors can spend their time playing their favourite games in even more exclusive surroundings.

The renovation of the rooms was re-

quired in order to update the safety features and bring them in line with current safety standards and every effort was made to work to standards of elegance and beauty befitting the historic significance of the rooms.

Mapei also took part in the restyling by supplying products for the installation and care of wooden flooring.

ECO-SUSTAINABLE INSTALLATION AND FINISHING OF THE WOODEN FLOORING

The flooring in the rooms inside the Casino was installed by a local company, Cordone Parquet, using Iroko wood.

The first step was to consolidate and waterproof the substrates by applying ECO PRIM PU 1K, a one component, solvent-free, moisture curing polyure-thane primer with very low emission of volatile organic compounds (VOC).

To match the drying time of this particular primer, ULTRABOND P990 1K, a

one-component, solvent-free, ready-touse, elastic polyurethane adhesive was used.

Both products are suitable for heated floors and can be used to bond any format or type of wooden flooring on screeds made from MAPECEM, MAPECEM PRONTO, TOPCEM and TOPCEM PRONTO or on cementitious screeds and old wooden, ceramic, marble and terrazzo tile floors, etc.

The joints between the wooden planks were filled with ULTRACOAT BINDER, a solvent-free, water-based binder with no NMP and very low emission of volatile organic compounds (VOC), which is mixed with sawdust made from any type of wood, including Merbau.

Before finishing the flooring, the surfaces were treated with ULTRACOAT PREMIUM BASE, a two-component, water-based basecoat with high insulating capacity, no NMP and very low emission of VOC, ideal for the preparation of solid and pre-sanded wooden floors and floors requiring repair before applying water-based finishing cycles.

ULTRACOAT PREMIUM BASE has been developed to enhance the colour of wood without creating undesired colour variations in species rich in tannins or other extracts (oak, teak, etc.), which makes it particularly recommended, therefore, for more difficult species of wood to avoid darkening or reddening of the wood.

The floors were then finished with ULTRACOAT HIGH TRAFFIC, a twocomponent, 100% polyurethane waterbased varnish with low emission of VOC and high resistance to wear and abrasion. This product is also suitable for floors subjected to intense pedestrian traffic.

ULTRACOAT EL slow-evaporating mixture was chosen to keep the open time

IN THE SPOTLIGHT

ULTRACOAT HIGH TRAFFIC

It is a two-component, waterbased varnish formulated with 100% aliphatic (non-yellowing) polyurethane resins, characterised by an excellent level of resistance to abrasion and scuff marks from rubber-soled shoes. It is used to finish solid and pre-sanded wooden floors and wooden floors requiring repair. It is suitable for use in civil and commercial environments. including those subject to extremely high pedestrian traffic (public offices, shopping centres, airports, exhibition halls, etc.). It gives parquet floors an attractive "natural wood" finish.







The substrates were sanded around one hour after applying ULTRACOAT BINDER, which is mixed with sawdust. The surfaces were then finished with ULTRACOAT HIGH TRAFFIC varnish.

of the varnish. The use of ULTRACOAT EL is particularly recommended in hot weather or when more time is required to apply the varnish, especially when particularly difficult work has to be carried out.

The various basecoats and finishes were applied with an ULTRACOAT ROLLER T5 and an ULTRACOAT ROLLER T10, which hold and then release just the right amount of the products onto surfaces. Their special fibres make them easy to clean and, if stored correctly in an ULTRACOAT ROLLER QUICK container, the products may be used again and again.

90 years on from the opening of the Dorata Room and the Privata Room, these two iewels in the crown of the Casino in what is known as the City of Flowers have returned to their former glory, thanks also to Mapei, helping to maintain the elegance that has characterised them since 1928.

TECHNICAL DATA

Sanremo Casino, Sanremo (Italy)

Year of construction: 1905 Year of the Mapei intervention: 2016 Intervention by Mapei:

supplying products for preparing substrates and bonding and finishing wooden floors

Client: Sanremo City Council Design: arch. Canio Tiri

Main contractor: Impresa Marino s.n.c. di Marino

Enio & C.

Flooring contractor: Cordone Parquet Sas

Mapei Distributor: Cordone Parquet Sas

Mapei coordinators:

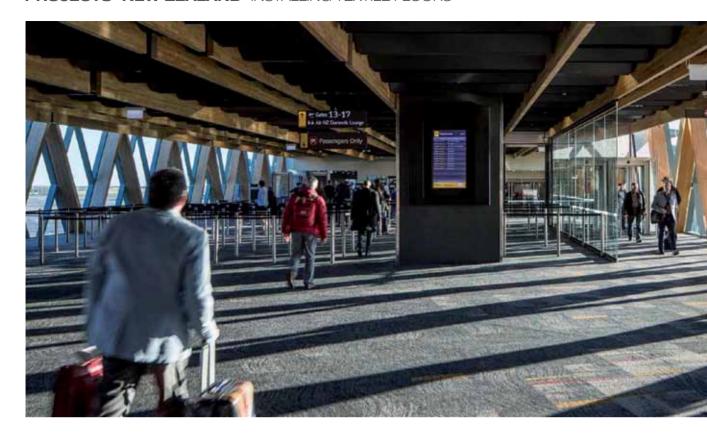
Franco Tomaini, Andrea Pecini, and Davide Zanotti, Mapei SpA (Italy)

MAPEI PRODUCTS

Preparing the substrates: Eco Prim PU 1K Installing wooden floors: Ultrabond P902 2K,

Ultrabond P990 1K Finishing wooden surfaces: Ultracoat EL. Ultracoat Roller T5. Ultracoat Roller T10. Ultracoat High Traffic, Ultracoat Premium Base, Ultracoat Rinder

For further information on products visit www.mapei.com



Wellington (New Zealand)

WELLINGTON AIRPOI

THE EXTENSION OF THE SOUTHERN TERMINAL INCLUDED THE INSTALLATION OF CARPET

The Wellington Airport helps take nearly 6 million passengers direct to 25 destinations around the world every year and handles 85.000 aircraft movements.

The southern extension to the Main Terminal Building, which was completed in 2016, was the first major work to the airport since its opening in 1959.

The terminal development was designed to facilitate increased passenger numbers for current and future requirements. This was achieved by providing both increased building area and a reconfiguration of the operational facilities within the south end of the terminal. This included a refinement of the security screening to the South West Pier, reorganized access to the South Pier Regional gates and additional width to the South Pier. The extension project was officially launched in November 2016 and was designed by architects Warren and Mahoney. It saw the new structure constructed up and over the existing buildings while simultaneously facilitating 20,000 daily passengers and over 200 daily aircraft movements. The extension created a much-enhanced passenger experience, vastly improving the passenger flow through the terminal. There is now an extra 6000 m² of space, new seating, more food and shopping

choices and a convenient centralised screening point.

Wellington Airport's terminal south extension project was awarded tourism and leisure category winner and a gold award held at the New Zealand Commercial Project award ceremony on 18th May, 2018.

New Zealand Commercial Project Award judges commented, "The addition is so well integrated that it looks as though it was always intended as the completion of the southern end of the building."

MAPEI PRODUCTS ON BOARD

The new and existing concrete floor substrates were prepared by way of a mechanical grind and re-surfaced using PLANIPREP SC. This is a high-performance, polymer-modified, fiber-reinforced cement-based skimcoating and patching compound, which is distributed on the local market by Mapei New Zealand. It allows for fast-track flooring installations in 30 to 60 minutes after application.

The B2 backed carpet tiles manufactured by the Australian company Ontera Milliken Pty Ltd were installed using ULTRABOND ECO FIX, a solvent-free adhesive based on acrylic resins in water dispersion, formulated as an easily trowelable light cream paste. It is used for the installation of looselay carpet or resilient tiles intended to be releasable.

When dry, the ULTRABOND ECO FIX mantains a residual tack, even after repeated removal and successive relaying of the



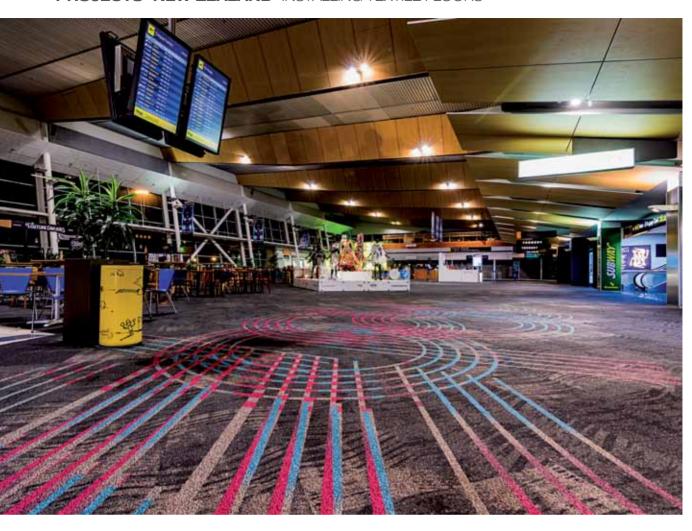


LEFT. The Wellington airport takes nearly 6 million passengers direct to 25 destinations around the world every year and handles 85,000 aircraft movements.

ABOVE and BELOW. The substrates were first treated with PLANIPREP SC polymer-modified, fibre-reinforced cementbased skimcoating. Carpet tiles were bonded with ULTRABOND ECO FIX and ULTRABOND ECO TACK adhesives.



PROJECTS NEW ZEALAND INSTALLING TEXTILE FLOORS



floor tiles: it is therefore possible to remove or substitute the flooring easily. The adhesive features very low emissions of volatile organic compounds (EMICODE EC1-certified) and can be used in areas with heavy foot and normal wheeled chair traffic. On the other hand, the Ontera cushioned backed carpet tiles were installed using ULTRABOND ECO TACK, an acrylic tackifier dispersed in water with a very low emission level of volatile organic compounds (VOC), for loose-lay carpet tiles. It may be used to hold and prevent slipping of loose-lay carpet tiles with any type of backing on all substrates normally used in the building industry, on existing flooring and on raised floors. ULTRA-BOND ECO TACK is also suitable for application on heated floors. It is non-flammable and has a very low emission level of VOC (EMICODE EC1). ULTRABOND ECO TACK is not hazardous for those who use the product or who use the environment where it has been applied.

IN THE SPOTLIGHT

ULTRABOND ECO FIX

It is a solvent free adhesive based on acrylic resins in water dispersion, formulated as an easily trowelable light cream paste, which is used for the non-permanent fixing of textile or resilient floors with dry-lay floor tiles.

ULTRABOND ECO FIX can be used in areas with heavy foot and normal wheeled chair traffic.

It is not inflammable with very low emissions of volatile

organic compounds (EMICODE EC1certified by GEV), so it is absolutely harmless to the health of the installer and the end-user. It can be stored with no particular precautions.

TECHNICAL DATA Southern terminal at Wellington airport,

Wellington (New Zealand) **Period of construction:**

Period of the Mapei intervention: 2016-2017 Client: Wellington Airport **Design:** Warren and Mahoney Main contractor: Hawkins Group

Installation company:

Christie Flooring Project manager: Brian Christie

Ontera Milliken representative: Jodie

Mapei Coordinator:

Mickelson

Jennifer Price, Mapei New **Zealand**

Photos: Ontera Milliken

MAPEI PRODUCTS

Preparing the substrates: Planiprep SC* Installing textile floors: Ultrabond Eco Fix, Ultrabond Fco Tack

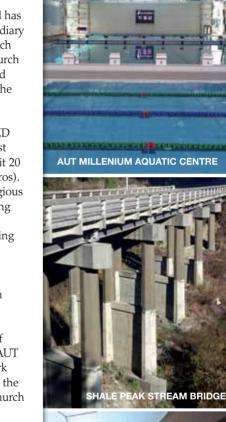
*This product is distributed in New Zealand by Mapei New

For further information on products see www.mapei.co.nz and www.mapei.com



MAPEI in New Zealand

Mapei New Zealand Ltd was established in 2002 and has been operating in New Zealand ever since. The subsidiary holds offices in Auckland, Wellington and Christchurch and warehousing facilities in Auckland and Christchurch that allow them to supply to both local customers and customers in surrounding countries like Fiji with all the Group's products, materials and technology. Thanks to its staff of almost 20 people, Mapei New Zealand closed 2018 off with sales of 12.3 million NZD (approximately 7.3 million Euros) which is the highest the subsidiary has ever achieved by far and aims to hit 20 million NZD by 2020 (approximately 11.8 million Euros). Mapei has supplied its products for numerous prestigious projects in the country: i.e. the structural strengthening of famous old Grafton Bridge in Auckland and the Shale Peak Stream Bridge near Christchurch, tunnelling work to create Rosedale wastewater treatment plant, the redevelopment of Aotea Square in Auckland and the University of Canterbury in Christchurch, the construction of The Base, a modern shopping mall in Hamilton city, and the Sky City Hotel and Sky City Grand Hotel in Auckland, completion work on the McLaren Showroom in Auckland, the construction of Wigram Air Force Museum in Christchurch and the AUT Millennium National Aquatic Centre, renovation work on the Huhtamaki and Cedenco Foods factories, and the extension of Auckland International Airport, Christchurch Airport and redevelopment of Wellington Airport.





ROSEDALE WASTEWATER PLANT







25 years In Australia

FROM THE OLYMPIC
GAMES TO THE
COMMONWEALTH
GAMES, FROM A BUSINESS
OFFICE TO A BRANDNEW MANUFACTURING
PLANT, FROM CYCLING
TO NETBALL: A SUCCESS
STORY IN SO MANY
DIFFERENT REALMS

Mapei has been operating in the land of kangaroos for twenty-five years now. The Group opened its first business office for distributing chemicals for the building industry in Brisbane, Queensland, on 20th April 1993. Thanks to this facility, Mapei Australia Pty Ltd has been able to supply its products and technology for carrying out such prestigious building projects as the Melbourne Aquatic Centre, Brisbane International Airport and Palazzo Versace Hotel in the Gold Coast. It has also supplied primers,

smoothing/levelling compounds, adhesives, grouts and sealants for the facilities that hosted the 2000 Olympic Games (and its spectators) in Sydney. These facilities include the Olympic Stadium, Olympic Aquatic Centre, Sydney Superdome, the Olympic Village and the State Hockey Centre, as well as Sydney International Airport and Lidcombe Railway Station.

Mapei opened a production plant in the Archerfield district of Brisbane in 2000, primarily for manufacturing systems for installing ceramics but also equipped, amongst other things, with a modern Quality Control Laboratory. The manufacturing output of powders was increased in 2009 to facilitate the Group's expansion plans, which involved the introduction of new production lines for manufacturing various materials belonging to several Mapei product lines. Over the years it turned out that the old plant could no longer meet the subsidiary's needs, so a new modern manufacturing unit has been built in the Wacol area near Brisbane, which houses both the plants for manufacturing powders and those for admixtures for concrete and grinding aids.

The complex, which has an output of over 200 tons of material-a-day, also houses a new logistics warehouse, container unloading zone, despatch office,





Quality Control Laboratory, Research & Development Laboratory, training centre, technical assistance and administration offices, a cafeteria and product trials area

Over the years Mapei Australia Pty Ltd has managed to achieve reasonable success and a solid operating base on the local market, thanks to a widespread network of distributors, the professionalism of its technicians, and the organisation of various marketing operations, such as training sessions at the Mapei Academy (192 events in 2018 alone, attended by over 3000 people), involvement in the most important local trade fairs, and sports sponsorship deals such as the UCI Road World Championships held in Geelong (Melbourne) in 2010, the Cadel Evans Great Ocean Road Race from 2015 to the present day (see the related article in this issue of the magazine), and, more recently, Netball Victoria. The subsidiary can now boast over 80 staff, offices and storage facilities in Brisbane, Sydney, Melbourne, Adelaide and Perth, and ISO 9001:2015 and ISO 14001:2015 Quality Management certification (ISO 4500 Occupation Health & Safety certification is expected be awarded in early March 2019). Mapei Australia is also very closely engaged in sustainability: it is a member of the Australian Green Building Council and promotes the use of products enabling "Green Star" credits to be awarded to eco-sustainable buildings.

Since it has been able to rely on its new manufacturing plant in Wacol from 2016 and bearing in mind it has always been able to get hold of supplies from other plants belonging to the Group (notably those in Singapore, Canada, Italy and United States), Mapei Australia can quarantee an effective distribution service for its products even in such a vast geographical area as this huge nation. Over the last few years innovative Mapei

systems for sports surfaces and playing fields have also "landed" in Australia and been an instant hit in the construction of sports facilities for athletics, tennis, baseball/softball and hockey.

Systems featuring innovative products like MAPECOAT TNS CUSHION, MAPESOIL and the ULTRABOND TURF range of adhesives have really "caught the eye" in Australia, opening up the way into an extremely large segment of the market full of potential. For example, Mapei products were used to complete work on Burnie Tennis Club in Tasmania (South Australia), which hosts the prestigious ATP Burnie International Tennis Tournament, and Greater Shepperton Sports Precinct, which is likely to host the 2030 Commonwealth Games (see Realtà Mapei International no. 65).



IN THESE PAGES. The extremely modern Mapei Australia manufacturing plant in the Wacol district of Brisbane **RIGHT.** The facility can also boast several quality, safety and environmental certifications







THE OFFICIAL OPENING OF THE PLANT IN WACOL WAS CELEBRATED WITH A **BALLET EVENING AND** AN EVENT HELD AT THE MANUFACTURING **PLANT**

The new Mapei Australia manufacturing plant in the Wacol district of Brisbane was officially opened by two days of special events: an evening at the Lyric Theatre in Brisbane on 9th December and a special opening of the production facility the following day.

Approximately 130 guests attended the evening: Mapei Australia VIP guests, members of the Group's Board of Directors like Veronica Squinzi, Global Development Director, and Marco Squinzi, Research & Development Director, as

well as General Managers and Financial Managers of Mapei subsidiaries in the Asia-Pacific region and other group executives.

The guests were welcomed to the Lyric Theatre, a building overlooking Brisbane River and home of the Queensland Performing Arts Centre's theatrical company, by Mapei Australia's General Manager, Philip Gray, and the subsidiary's Marketing Manager, Debby Norgrove.

At the beginning of the evening, the guests enjoyed the view of the river







LEFT. Before the ballet began quests got the chance to enjoy refreshments on the Lyric Theatre's open-air terrace.

IN THE FACING PAGE

Friends and customers of Manei Australia were invited to attend a performance of the ballet Don Quixote held at the Lyric Theatre in Brisbane on the evening of 9th November **RIGHT.** Various members of Mapei subsidiaries in the Asia Pacific region also took part in the event.



and city from the rooftop terrace of the theatre, where they were served refreshments

Many took the opportunity to be photographed against a backdrop reminiscent of the show they were to see: the ballet Don Quixote with Rudolf Nureyev's choreography performed by the La Scala Ballet Company, which was performing in Australia for the first time.

Over 75 ballet dancers performed one of the most popular classical operas with Australian audiences. With its sparkling energy and the warm colours, Rudolf Nureyev's Don Quixote offered choreographic splendor, transporting audiences to a Spain alive with gypsy dances, fandangos, matadors and windmills.

During the two intervals Mapei guests were invited into the theatre lounge to enjoy drinks and desserts.

DOORS OPENED AT THE PLANT

The following morning 180 guests took part in the official opening of the Mapei Australia production facility in Wacol. In addition to Veronica Squinzi and General Managers and Financial Managers from subsidiaries in the Asia-Pacific region, the guests also included such local dignitaries as the Lord Mayor of Brisbane, Graham Quirk, the Italian Ambassador in Canberra, Stefano Gatti, and the Consul of Italy in Brisbane, Ludovico Carlo Camussi. Guests were given the opportunity to visit the production areas, laboratory, training facility and offices.

During the official speeches, Philip Gray thanked everybody for attending and briefly retraced the history of Mapei Australia.

The Ambassador, Stefano Gatti, and the Mayor, Graham Quirk, emphasised just how important companies like Mapei are in strengthening relations between Italy and Australia and boosting the local economy.

Veronica Squinzi and Marcel Smit pointed out that the opening of the plant in Wacol was part of the Group's much wider internationalisation and reinforcement strategy for the Asia Pacific region, where Mapei is ready to invest even more to keep on growing over the years to come.

The official speeches were followed by a plague ribbon-cutting ceremony performed by Veronica Squinzi and the Italian Ambassador to Australia, Stefano Gatti. The commemorative plague has later been fixed to the building at the front entrance to the Mapei facility.

As well as visiting the plant, quests also enjoyed Italian ice cream, beer, coffee, wine and some typical Italian food served at a few stands specially created for the occasion.

There was also a special performance by the three "Singing Waiters", actors pretending to be waiters of different nationalities, who entertained the audience with their jokes, opera singing and a rendition of the song "Mapei, my way" composed by Paul Anka.

The festive atmosphere continued into the early afternoon when guests left the plant full of happy memories.



PHOTO 1. Veronica Squinzi, Marcel Smit, Philip Gray, the Italian Ambassador in Canberra and the Consul of Italy in Brisbane gave speeches at the official opening of the Wacol plant before a plaque ribboncutting ceremony. PHOTO 2. Guests were entertained by the "Singing Waiters", a trio of actors who sang opera songs and performed comic sketches. PHOTO 3. A very special and memorable day for lots of Mapei's friends.



1. BRISBANE INTERNATIONAL AIRPORT

Extension works at the airport took 2 years and involved more than 30,000 m². Mapei supplied products for installing ceramic tiles, marble and natural stone slabs in the North and South Terminals. NIVORAPID, PRIMER G and ULTRAPLAN were used for preparing substrates; MAPEGUM WPS and MAPEBAND for waterproofing; KERABOND PLUS + ISOLASTIC for bonding ceramic tiles and stone slabs.

2. OPERA HOUSE - SYDNEY

Renovation works on this imposing multi-venue performing arts theatre (which is an iconic symbol for Sydney and Australia) included installing over 1000 m² of rubber and textile floorings bonded with ULTRABOND ECO 85* and ULTRABOND ECO 200* adhesives

3. GROSVENOR MINE - MORANBAH

Mapei supplied the following admixtures for concrete and products for underground constructions for building a five million tonne per annum underground longwall mine in Moranbah: MAPEQUICK CBS SYSTEM 1, MAPEQUICK CBS3, MAPEBENT CBS5*, POLYFOAMER FP. MAPEBLOX T. MAPEBLOX H. MAPEBLOX PKG. and MAPEDRILL BIO.

4. STADIUM AUSTRALIA - SYDNEY

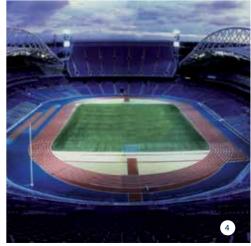
The stadium, designed by the Hok+Lobb architectural studio, covers a 16 hectare surface. Rubber coverings were laid on the athletic tracks with ADESILEX G19. PLANO 3, NIVORAPID, PIANODUR R, ULTRAPLAN and PRIMER G were used for levelling and smoothing the concrete surfaces.

Building works IN AUSTRALIA

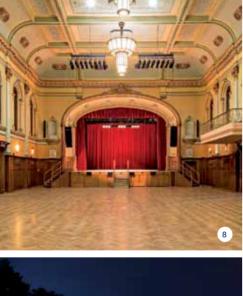
Ever since Mapei Australia Pty Ltd was first established, it has contributed to building work in the most important Australian cities like Adelaide, Brisbane, Melbourne, Perth and Sydney, supplying products and technology for carrying out numerous prestigious building projects, examples of which can be found over these pages. As well as helping build and renovate numerous sports facilities (including the ones hosting the Sydney Olympics and Commonwealth Games), Mapei Australia has also been involved in redevelopment projects on Australia's main airports, such as those in the cities of Brisbane, Cairns, Melbourne and Sydney.















5. MARGARET COURT - MELBOURNE

In the latest redevelopment phase of Melbourne Park, Margaret Court Arena has been given a complete transformation to create the precinct's third all-weather arena, in time for the 2015 Australian Open. Over 7000 m² of granite and bluestone pavers were installed in and around the arena with Mapei products such as KERAQUICK, KERAPOXY, KERACOLOR FF, KERACOLOR GG, MAPEPRIM SP*, PLANICRETE SP*, MAPECEM QUICKPATCH, MAPELASTIC SMART.

6. LEGACY WAY TUNNEL - BRISBANE

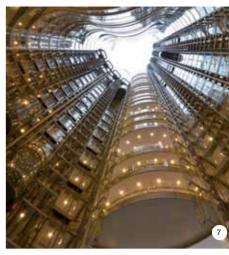
This 4.6 km tunnel was built to ease the local traffic and required special products for underground constructions. MAPEQUICK CBS SYSTEM 1, MAPEQUICK CBS SYSTEM 3, MAPEBENT CBS5* were used to inject the cementitious backfill grout into the lining of the tunnel. The MAPELASTIC TU SYSTEM was used to waterproof the Cross Passage.

7. BLIGH STREET - SYDNEY

This imposing skyscraper hosts over 27 floors modern offices for companies and VIP people, including Malcolm Turnbull, Australia's former Prime Minister. They offer breath-taking views on the Sydney Harbour and the Sydney Harbour Bridge. Mapei products contributed to prepare substrates (PLANICRETE SP*), installing marble and ceramic tiles (KERABOND PLUS, ISOLASTIC, KERAFLEX, KERAPOXY), sealing expansion joints (MAPESIL AC) and installing wooden floors (ULTRABOND P990 1K).

8. HAWTHORN ARTS CENTRE **BOROONDARA**

Since 1888, the Hawthorn Town Hall has been an iconic fixture of the city of Boroondara, near Melbourne, and a venue for civic and community functions. In 2009, redevelopment works began turning it into an arts and cultural facility. During the redevelopment works, wooden and vinyl floor and wall coverings were installed using NIVORAPID, ULTRABOND P990 1K UITRACOAT PREMIUM BASE ULTRACOAT HIGH TRAFFIC, PRIMER G, ECO PRIM T, PLANIPREP FF*, ULTRABOND ECO TACK, ULTRABOND ECO 350, ROLLCOLL, MAPECONTACT.



9. ANZAC WALK - ADELAIDE

This imposing granite wall depicts Australian society through a century of conflict and honours more than 102,000 Australian servicemen and women who died serving their country. To complete it, PLASTIMUL and ECO PRIM GRIP were used for preparing the substrates, KERAFLEX MAXI S1 for bonding the granite slabs, ULTRACOLOR PLUS for grouting the joints and MAPESIL AC for sealing expansion

10. BURNIE TENNIS CLUB - BURNIE

The 2017 edition of the ATP Burnie International Tennis Tournament was hosted at the Burnie Tennis Club in Tasmania (Southern Australia). Mapei contributed to the upgrade of the center from a '3 coat Professional' system to a '9 coat MAPECOAT TNS CUSHION' system. The system comprises MAPECOAT TNS GREY BASE COAT, MAPECOAT TNS FINISH 1, MAPECOAT TNS FINISH 3 MAPECOAT TNS LINE and ensures the formation of semi elastic playing surfaces.

*These products are manufactured and distributed on the Australian market by Mapei Australia Pty Ltd.

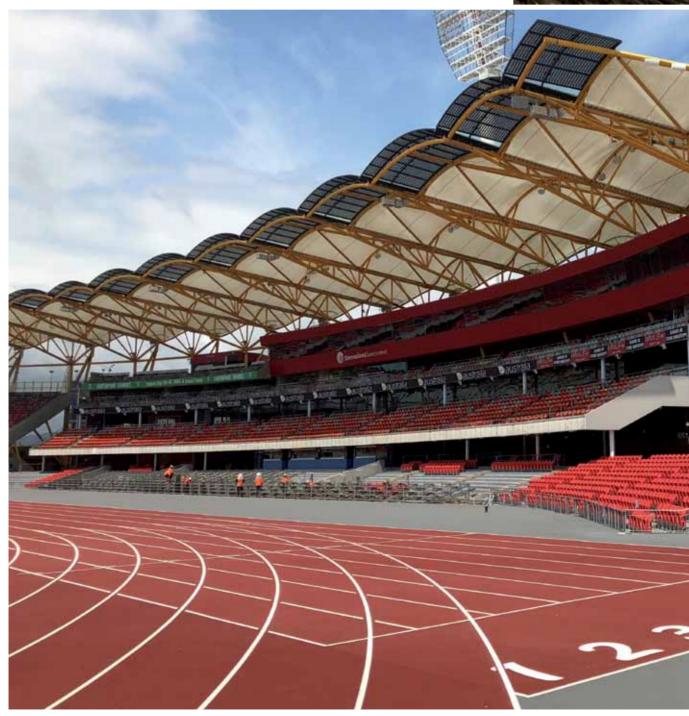


Gold Coast

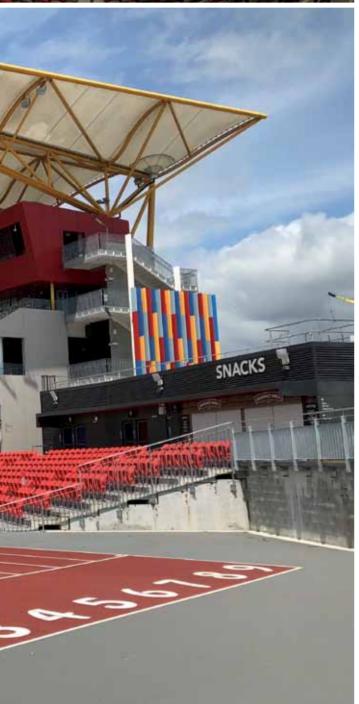
CARRARA STADIUM

CUTTING-EDGE TECHNOLOGY FOR THE ATHLETIC TRACK OF THE STADIUM THAT HOSTED THE 2018 GOLD COAST **COMMONWEALTH GAMES**









A unique characteristic of the Commonwealth Games is being the only Games which share a common language. All athletes and officials can converse with each other in English, creating an atmosphere that has led to the Commonwealth Games being long known as the 'Friendly Games'. From the first host city of Hamilton in Canada, the Games have been held in many of the major Commonwealth Countries. In fact Australia has been the only country to hold the Games on five occasions, including Gold Coast, in Queensland, in 2018. Significantly this edition of the Games marked the first time a Commonwealth Games has been held in a regional Australian city.

A key player in the staging of the first Commonwealth Games was sports reporter and administrator Melville Marks (Bobby) Robinson, who helped bring to reality what Commonwealth nations had been dreaming about for three decades. Since then, the Games have grown from an event featuring 11 countries and 400 athletes to a modern sporting spectacular that includes 71 nations and territories and over 6.600 athletes and team officials.

An important change has also been made in gender equality over the years, with 'GC2018' marking the first time in history of a major multi-sport Games with an equal number of medal events for men and women. The size and format of the sporting competition has also grown over the years. Up until the late 1990's, there had only ever been single competition sports before the introduction of hockey (men and women), netball (women) and rugby 7'2 (men) at the Kuala Lumpur Games in 1998. It wasn't until eight years later at the Melbourne Commonwealth Games in 2006 that basketball was introduced. 'GC2018' saw the first ever Beach Volleyball competition on the Gold Coast: a fitting inclusion for the globally renowned beachside destination.

THE JOURNEY TOWARDS GC2018

The journey of Gold Coast towards 'GC2018' began in 2008, with preliminary discussion between the Queensland Government, the Australian Commonwealth Games Association and City of Gold Coast. In 2010, the Queensland Premier formally announced the government's intention to bid for the 2018 Commonwealth Games. Over the next 12 months, the City worked with the Queensland Government to develop the Gold Coast's Commonwealth Games Candidature File. This 220 page 'bid book' contained comprehensive technical information and commitments addressing specific criteria set by the Commonwealth Games Federation (CGF). The Gold Coast's bid book was officially submitted to the CGF in Kuala Lumpur, Malaysia, in May 2011. Voting delegates from International Commonwealth Games Associations then visited the Gold Coast in the months that followed. On the 12th of November 2011, final presentations were made to the Commonwealth Games General Assembly in St. Kitts and Nevis by both bid cities, before a vote to decide the next host city.

Almost three years later, when the curtain closed on the Glasgow 2014 Commonwealth Games, a 10 minute presentation introduced the Gold Coast as the next host city.





ADESILEX G19 ensured a perfect installation of the 'Warm-Up' track, the 'Sprint' track and the 'Commonwealth Games Athletics' track

IN THE SPOTLIGHT

ADESILEX G19

Two-component, epoxypolyurethane adhesive for resilient and textile flooring. It is an extremely strong, tough, and elastic adhesive for general purpose use, particularly suitable for non-absorbent substrates or moisture-sensitive substrates (wood, metal, ceramic, stone, resin. PVC. rubber. etc.). It can be used in interiors and exteriors. It was specifically developed for the installation of rubber athletic tracks but it is also suitable as universal adhesive for rubber. PVC and all common resilient and textile floor covering types, especially in the event of extreme temperatures due to solar radiation, intense mechanical stress by lift truck, forklift, etc. or frequent washing (in particular when the floor coverings are not welded or sealed).



INSTALLING TRACKS SAFELY AND QUICKLY

With the announcement of the 2018 Commonwealth Games to be held on the Gold Coast now commenced the major selection process of various segments of the housing facilities as well as the sporting event tracks. Part of that process was the announcement of Cockram Construction as the builder for the completion of the Carrara Stadium (known commercially as Metricon Stadium) overlay development works.

With a history of involvement in track supply and installation the decision was made to proceed with athletic tracks supplied by Mondo.

To ensure a perfect installation of the tracks, the adhesive chosen was ADESILEX G19 two-component, epoxy-polyurethane adhesive that has been used to bond athletic rubber tracks in the facilities hosting the Olympics since the 1976 edition in

Montreal (Canada).

Installation of the tracks commenced in October 2017 with the 'Warm-Up' track being the first of the three main components of the centre. The three components creating the centre were the 'Warm-Up' track, the 'Sprint' track and the 'Commonwealth Games Athletics' track. With a two-part process of installation being to totally cover the asphalt surface with ADESILEX G19 adhesive before applying the rubber coverings, the completion of all tracks ended in February 2018.

The supply of over 17 tons of ADESILEX G19 has provided the contractors with the perfect adhesive to ensure a track surface which meets all IAAF (International Association of Athletics Federations) and Commonwealth Games standards as well as a system which ensured the safe and efficient removal of the tracks after the completion of the Games.

TECHNICAL DATA Carrara Metricon Stadium.

Gold Coast (Queensland, Australia)

Period of the Mapei intervention: October 2017-February 2018 Design: SportEng

Client: Gold Coast City

Council

Main contractor: Cockram

Construction

Installation contractor:

Spectrum Floors

Project manager: Derek

Collins

Main engineer: Michael Bale & Associates

Mapei coordinator:

Neil McIntosh, Mapei Australia

Photos: Neil McIntosh

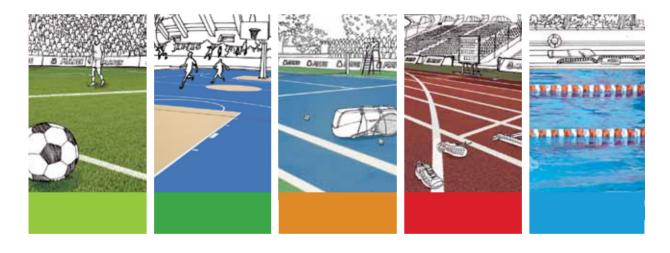
MAPEI PRODUCT

Installing athletic rubber tracks: Adesilex G19

For further information on products see www.mapei.com and www.mapei.com.au



to design and build sports facilities



MAPELJOINS





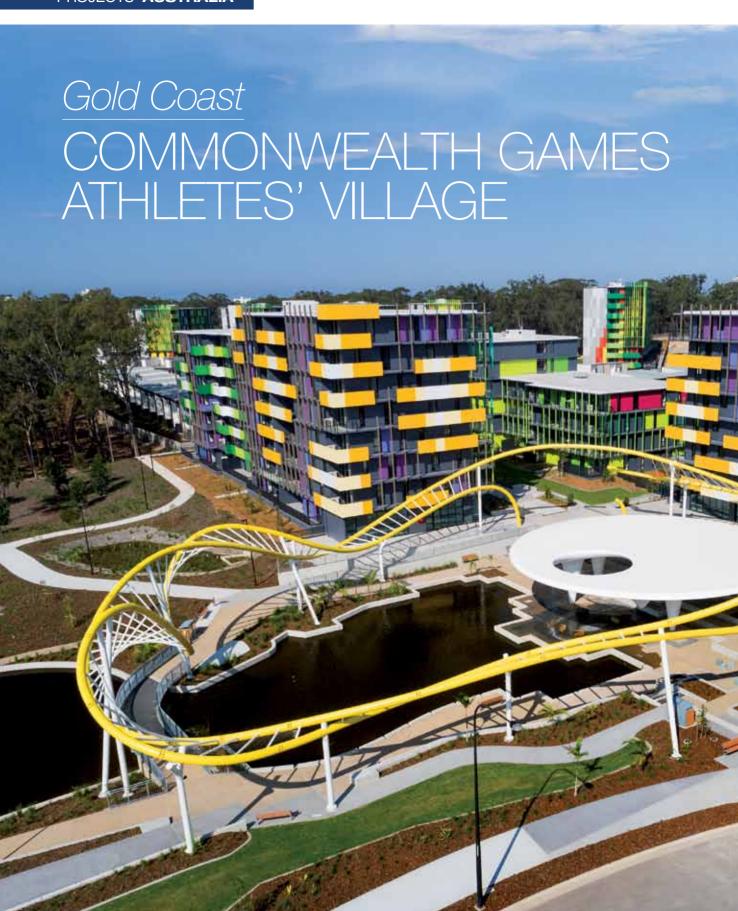




EVERYTHING'S OK WITH MAPEI









6.600 athletes and team

officials during the Games.



A COLORFUL VILLAGE FOR THE ATHLETES OF THE COMMONWEALTH GAMES COMPLETED WITH MAPEI PRODUCTS ON THE GOLD COAST

The Parklands Project in the Gold Coast (Queensland, Australia) incorporates seven hectares of residential and retail precincts and over seven hectares of green and open spaces, including a community park and extensive landscaped areas. The project features 1,252 permanent dwellings, comprising 1,170 one and two bedroom apartments and 82 three bedroom townhouses over 18 buildings and a village heart that connects the master planned development.

In late 2017 the site was leased to the Gold Coast 2018 Organising Committee (GOLDOC) and was transformed into the athletes' village for the 2018 Gold Coast Commonwealth Games. During the Games, the Village accommodated 6,600 athletes and team officials. Construction commenced in late 2015 and the project was completed in late 2017.

After the Games, the Parklands Project provides a range of housing options, retail businesses, services and community infrastructure for those working in, studying at and visiting the Gold Coast Health and Knowledge Precinct.

A SPLASH OF COLOUR

The over 6,000 athletes that entered the 2018 Commonwealth Games village near Southport followed the purple brick road to the entrance – through a screening process similar to an airport – then to their accreditation centre before locating their rooms in one of six residential zones.

And this was where the real splash of colour comes into play. The 2018 Commonwealth Games Village is just colour everywhere; with splashes of primary reds and yellows washed with bright swashes of green, purple and blue. The 29 hectare site just screams Queensland in the very nicest way, with the residential villages called Rainforest, Reef, Outback, Beach, Surf and Sunset.

The balconies overlook the Games Village, which just oozes holiday at the Gold Coast. There is an international food hall, gymnasium and athlete recovery rooms, a poly-clinic that



covers everything from optometry to pregnancies to accidental injuries, saunas and ice baths, weight rooms, special services for wheelchair athletes and people with prosthetics and a drug-testing centre completing both drug and blood tests.

The athlete's gymnasium is one of the nicest features in the Village Heart, which includes a pool, a white sculpture that looks like an upturned molar, a vertical fountain and a piano in a pop art scene that could have come from London's swinging '60s. In fact, it is a useable sculpture modelled on the Natural Arch in the nearby Numinbah Valley behind the Gold Coast where water drips down the limestone and glow worms appear at night.

There are four pools and a big open space area called The Backyard. It also encompasses a running and walking track with brilliant landscaping. There is also a sculpture called Medal Blooms with 275 small golden "flowers" where the name of every gold medal-winning athlete will be engraved on its face.

MAPEI PRODUCTS AT WORK

Soundproofing of the apartment floors was an essential part of the interior fitout of each unit to ensure that all athletes were provided with a quiet area for relaxation as well as sufficient soundproofing for future tenants.

The acoustic matting was installed using ULTRABOND ECO V4 SP, an acrylic polymer adhesive which is ideal for the fast and safe installation of resilient floors.

ULTRAMASTIC III, ready-to-use paste adhesive with no verti-

PHOTO 1

ULTRABOND ECO V4 SP and ULTRAMASTIC III. adhesives were used in the apartments for the athletes. PHOTO 2.

In the wet areas screeds were fixed to the substrate using PLANICRETE SP, latex additive mixed with cement and sand. KERAFLEX cementitious adhesive was used for installing the white ceramic tiles on both walls and floors. Joints were grouted using KERAPOXY.

PHOTOS 3 AND 4.

The substrates of the swimming pools and water tanks of the village were waterproofed with MAPELASTIC SMART.



cal slip and extended open time, was used for installing the

KERAQUICK deformable, rapid-setting and hydrating, nonslip cementitious adhesive with extended workability was chosen for bonding the floor tiles in the common areas to allow early traffic for other trades to work.

All tile joints were grouted using KERACOLOR FF polymermodified, water-repellent, cementitious grout on the floors while ULTRACOLOR PLUS anti-efflorescence, quick-setting and drying polymer-modified grout was used on the walls.





IN THE SPOTLIGHT

MAPELASTIC SMART

It is a two-component, high-flexibility cementitious mortar (with crack-bridging capacity > 2 mm) applied by trowel or roller. MAPELASTIC SMART is used for waterproofing hydraulic projects such as channels, dams, swimming pools, basins, storage tanks, etc. and balconies and terraces. Particularly suitable for waterproofing irregular surfaces, it is also used to protect concrete structures, renders with hairline cracks and cementitious surfaces in general which, being subject to vibrations, may suffer from cracking.

In the wet areas, screeds were installed using PLANICRETE SP, a multipurpose latex additive distributed by Mapei Australia and mixed with cement and sand, and KERAFLEX cementitious adhesive was used for installing the white ceramic tiles on both walls and floors. Joints were grouted using KERAPOXY two-component, acid-resistant epoxy grout. In the swimming pools MAPELASTIC SMART cementitious mortar was applied to waterproof the substrates. 5 water tanks were waterproofed using MAPELASTIC SMART due to its excellent mechanical characteristics.

TECHNICAL DATA

Commonwealth Games Athletes

Village, Gold Coast (Queensland, Australia)

Period of construction: 2015-2017 Period of the Mapei intervention:

2015-2017

Design: Archipelago

Client: Queensland Government

Contractor: Grocon

Ceramic installation company:

Saba Bros Tiling Pty Ltd

Project manager: Steven Grimes **Mapei coordinator:** Dyorn Taylor,

Mapei Australia

MAPEI PRODUCTS

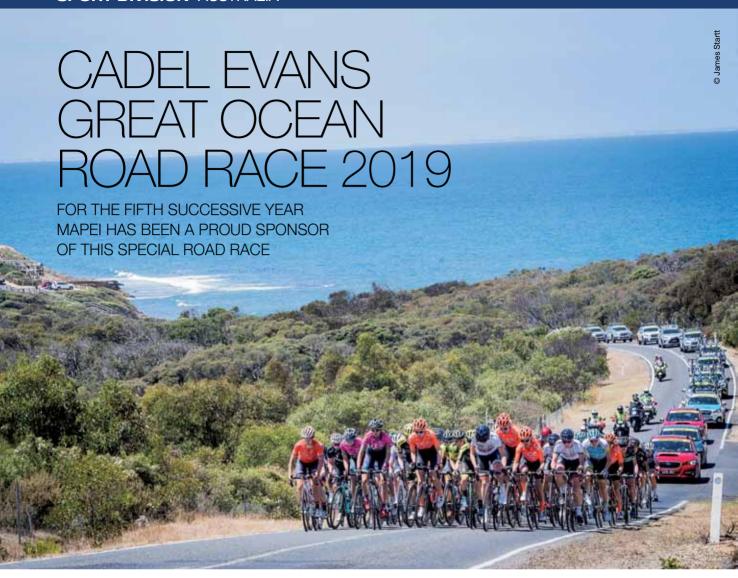
Preparing the substrates: Planicrete SP* Installing soundproofing mat: Ultrabond Eco V4 SP

<u>Waterproofing substrates:</u> Mapelastic Smart

Installing ceramics and mosaics: Kerapoxy, Keraflex, Keraquick, Keracolor FF, Ultramastic III. Ultracolor Plus

*This product is distributed in Australia by Mapei Australia.

For further information on products see www.mapei.com.au and www.mapei.com



Cadel Evans is considered the greatest Australian cyclist of the modern era and is the only Australian to win the prestigious Tour de France. He joined the Mapei Professional Cycling Team back in 2002 and continued to train at the Mapei Sport Centre in Italy. Cadel also won the UCI Road World Championships in 2009. Cadel retired from professional cycling on 1st February 2015, after finishing fifth in the inaugural Cadel Evans Great Ocean Road Race in Victoria. an event named in his honour. Residing in Barwon Heads (near Geelong, in the State of Victoria) when in Australia, Cadel is still a regular feature on the roads that comprise the course of the Cadel Evans Great Ocean Road Race and the Swisse People's Ride, riding alongside young Australian cyclists, TV and sporting celebrities as well as local dignitaries.

The Cadel Evans Great Ocean Road Race generates over 6 million Euros to

the region with more than 20,000 visitors choosing to holiday and stay in the area and attend the event.

Mapei has been a long-term sponsor of cycling events: from 1993 to 2002 it also sponsored its own Mapei Professional Cycling Team that dominated the international cycling world. The Group continues as the main sponsor of the UCI Road World Championships that is held in a different country each year (including the 2010 edition in Geelong, Australia) and which will return to Australia in 2022.

THE 2019 EDITION OF THE RACE

A record 120,000 cycling fans packed Geelong and the Surf Coast to watch the events that started on the Saturday morning with over 3100 eager cyclists lined up to participate in the Swiss People's Ride. This ever-popular ride enables the general public to ride the circuit that the professional athletes will also com-

plete during the weekend. Participating cyclists ranged from as young as twelve to an amazing eighty-four old. Cyclists were offered the choice to register for the 35km, 65km or the full 115km circuit. Mapei Australia, the Group's local subsidiary, was proud to sponsor the Sprint Jersev for both the Women's and Men's Races.

The winner of the Women's Sprint was Chloe Hoskings from Australia and the Men's winner was Nathan Elliott, also from Australia.

The Mapei Sprint is comprised of two sections in the race: one in Barwon Heads and the other in Torquay. Both towns are situated on the Great Ocean Road with beautiful, natural beach and ocean views that can be seen by the cyclists from the road.

The overall winner of the Men's Elite Race was Italian cyclist Elia Viviani from team Deceuninck-Quick Step and the



ABOVE. The podium of the Men's Elite Race won by the Italian rider Elia Viviani. BELOW. The winner of the Women's Elite Race, Arlenis Sierra, at the finish.



>> 120,000 CYCLING FANS **PACKED GEELONG AND** THE SURF COAST

winner of the Women's Elite Race was Belgian cyclist Arlenis Sierra from team Astana.

SPECIAL TREATS FOR MAPEI'S GUESTS

Mapei Australia also hosted a VIP Hospitality Area on the First Floor of the Novotel Hotel that is situated on the waterfront in Geelong. With over 500 VIP guests attending, Mapei provided meals and refreshments while guests sat back on the lounge and watched the race unfold, or those wanting to sit on the outdoor balconies were treated to the entertainment from Steampacket Gardens that continued over the weekend. The Hospitality Area also overlooked the start/finish line and offered one of the best vantage points to watch the elite cyclists start and finish their respective races.

Mapei also hosted some interactive games in their branded marguee in Steampacket Gardens, situated opposite the VIP area on the Esplanade. Thousands of people lined up to play a soccer target game where they needed to kick the soccer ball and try and beat the Mapei Sassuolo goalie. If soccer wasn't their choice, then they had the option to shoot a netball into the ring thanks to the assistance of Maddie Okley, the Western Regional Co-Ordinator from Netball Victoria. Mapei Australia, indeed, has developed a special relationship with Netball Victoria as a Programs Partner Sponsor to support the development of young children into the world of netball.

Both children and adults competed in the games to win a Mapei soccer ball, Mapei cycling cap or Mapei water bottle. The games were extremely popular with spectators forming a continuous line. The Mapei stilt guys were also seen walking around the event handing out Mapei cycling caps to eager spectators. Mapei Australia will continue its support of this race into 2020, encouraging more customers and contacts from the building and construction industries to share in this great event.



ABOVE. The start of the race. BELOW. Mapei's VIP Hospitality area and, below, the pavilion set up in Steampacket Gardens.







Sassuolo still hopes to finish high enough up the league table to qualify for international football in the 2019-2020 season. The end of the first half of the 2018-2019 season was not easy for Sassuolo, but the team battled away to maintain its healthy position in the league. The midfield player from Ghana, Alfred Duncan, has been playing at a very high level most of the time and other players who have performed really well are Domenico Berardi, who now gets much more involved in the team's play than he did two years ago, Stefano Sensi, Khouma El Babacar, and a number of others. The great performance in the match at San Siro Stadium against Inter Milan injected fresh impetus into the team managed by Roberto De Zerbi, but Sassuolo still needs to do better in its home matches.

FIREWORKS

Sassuolo could not beat Udinese at Mapei Stadium: the match ended in a 0-0 draw. The next home game finished 3-3 against Fiorentina with all the fireworks happening in the second half. From a sporting viewpoint, Sasssuolo committed footballing suicide: 3-1 ahead after 80 minutes, its opponents managed

to equalise in the 96th minute. The magnificent Duncan opened the scoring with Babacar getting a second before Simeone pulled one back for Fiorentina. Sensi then scored again for Sassuolo only for Benassi and Mirallas to score twice for the away team. "We dominated the game for 70 minutes", so Mr De Zerbi was keen to tell us. But the team clearly faded at the end, particularly during all the time added on. The team sponsored by Mapei was back to its winning ways when it beat Frosinone 2-0. The team took the lead through an own goal scored by the former Sassuolo player Ariaudo in the 43rd minute. "We played well in the first half - so De Zerbi added - even though we did not always move the ball around very quickly.". Domenico Berardi scored a second in the 58th minute. "Domenico gives Sassuolo that something extra and he could also do it for the Italian national team", so the manager assured us. The next game was bound to be tough against Torino. The match ended 1-1 with Torino taking the lead in the 58th minute thanks to its striker Belotti, but Enrico Brignola scored an equaliser in the first minute of added time. Here is what De Zerbi had to say: "We could have avoided conceding that first

Sassuolo finished the first half of the 2018-19 Championship with **25 points** from 19 games. The team had 21 points after the same number of games in the 2017-18 season



the penalties Sassuolo took in the 2017-18 season and converted four of them

goal, although I must admit Belotti did something quite extraordinary. Considering the chances we created, we could have done better. Enrico is in fantastic form at the moment: he took part in the UEFA European Under 19 Championship, so he was a little bit behind with his preparation at the beginning of the season. Brignola's problem is that he is Berardi's reserve at the moment. Enrico must grit his teeth and remember that very few people rate him as highly as I do". Sassuolo's slow climb back up the table into a Europa League qualifying position came to a halt at the Olympic Stadium against Roma losing 3-1 with goals by Perotti (penalty), Schick and Zaniolo. Babacar's goal in the 90th minute made the score line more respectable.

Sassuolo's game against Atalanta at the Mapei Stadium also went badly with the team from Bergamo winning 6-2. Atalanta dominated much of the first half and scored through Zapata and Gomez; Sassuolo began the second half more promisingly and scored through Duncan, but it did not take Atalanta long to regain a two-goal lead after their promising defender, Mancini, scored in the 54'. Sassuolo's hopes were briefly revived when Duncan scored another spectacular goal, but Atalanta then brought on Josip Ilicic who scored a hat-trick in 18 minutes. So, were Sassuolo's problems more physical or tactical? "Apart from the first 10 minutes of the second half - so Mr. Zerbi admitted - nothing went well". Despite the poor overall performance, Duncan again showed his great qualities.

SAN SIRO, SURREAL ATMOSPHERE

Following a number of incidents outside the stadium and racist chants during the Inter Milan-Napoli match, the Italian Football League ordered Inter Milan to play it is match against Sassuolo



ABOVE. Sassuolo's midfielder Stefano Sensi gets away from Daniel Ciofani in the match at Stirpe Stadium in Frosinone.

behind closed doors on the first day of the second half of the season. This eagerly awaited match finished 0-0.

The only people allowed to watch the Inter Milan-Sassuolo game at Meazza Stadium were 11,000 children from Inter Milan's football schools, accompanied by a few adults. The stadium's first ring of seats opposite the VIP stand was decorated with banners with the abbreviation "BUU" written on them, standing for "brothers universally united": a decidedly surreal atmosphere for a Serie A match. The children's voices chanted some simple songs and a few of them even supported Sassuolo, but it felt like being at one of those charity football matches with famous singers playing. As De Zerbi rightly pointed out: "Football is played for people and I do not like it when the fans are not allowed to watch".

The first ever draw between Inter Milan and Sassuolo was a very evenly matched game in both halves. Boga, Bourabia and Boateng (with a header) had Sassuolo's best scoring opportunities. Inter Milan also had a number of chances to score, the best falling to Lautaro Martinez right at the end of the match. After a number of bad results in the Serie A League and Italy Cup, Sassuolo finally put on a phrase-worthy performance against one of the top teams. It is worth noting that Sassuolo has won seven and drawn one of its last nine matches against Inter Milan.

"Luckily for us Lautaro Martinez shot wide right at the end of the match - so Mr De Zerbi noted -; if he had scored, nobody would be singing our praises now. This fine performance shows the players are developing nicely and working really hard in training".

A draw at San Siro Stadium against a relatively poor Inter Milan



LEFT. The youngster Pol Lirola dribbles around some Torino players. RIGHT. Alessandro Matri and Nicolas Nkoulou again in the match against Torino.





The Inter Milan player Skriniar challenges Duncan; the Sassuolo midfielder received plenty of plaudits at San Siro Stadium in Milan.



Inter-Sassuolo: Sassuolo's Bourabia shows great skill as he takes on Brozovic and Borja Valero.

set the Sassuolo fans dreaming: "We want to qualify for the Europa League again", so the fans kept on saving. But Mr De Zerbi knows how to stop everybody from getting carried away: "We still need several points to avoid relegation. After we have achieved that aim, we can start thinking about other goals. At the beginning of the season our main aims were to avoid relegation, improve and, if possible, finish on level terms with or above teams like Cagliari and Atalanta".

GOALS AND GREAT ENTERTAINMENT

The team sponsored by Mapei won its next game 3-0 against Cagliari. Sassuolo took the lead after just nine minutes through its midfield player Locatelli, who tapped in the rebound after the goalkeeper Cragno failed to hold onto the ball. The second goal came just before the end of the first half with Babacar scoring his sixth goal of the season from the penalty spot. Matri added another towards the end of the match. Duncan also played a major part in this third goal after coming on in the 75th minute to replace Magnanelli. The defence also played extremely well with Peluso putting in a fine performance playing out of position as a central defender.

Defeat against Napoli in the Italy cup

Sassuolo's adventure in the 2018-19 Italy Cup ended in the round of the last sixteen. After finishing 11th in the 2017-18 League Championship, Sassuolo did not have to play in the summer qualifying rounds and only entered the Italy Cup in the round of the last thirty-two playing against Catania at Mapei Stadium. Sassuolo came under pressure during the middle of the match, due to the great determination shown by the team from Sicily but managed to win 2-1 in the end. Sassuolo took the lead through Matri in the 14' minute, but Brodic equalised for Catania in the 41'. Locatelli scored the match-winning goal in the 81' minute. Sassuolo then played against Napoli, one of the best teams in Italian football at the moment, at San Paolo Stadium in the round of the last sixteen. The match finished 2-0 for Napoli thanks to goals by Milik in the 15' and Ruiz in the 74'. It was a very physical game with seven players getting booked. The Italy Cup is still one of Sassuolo's dreams.

"Sassuolo-Cagliari was a match I really feared", so De Zerbi told us. "A team like mine with lots of young players in the squad was always likely to lose concentration after such a brilliant result against Inter Milan, and there was a real danger of playing very badly against an allegedly weaker team. On the contrary, my players were really up for the game against Cagliari, proving just how far they have come". Sassuolo finally won another league game at Mapei Stadium after 126 days. "All our best players are coming back into form, although we were missing certain key players we have built our team around: Marlon, Sensi and Duncan (initially). We played well both in defence and attack, constantly getting forward and only really coming under pressure from Cagliari for about 10

BOATENG LEAVES, DEMIRAL JOINS

minutes in the second half".

Sassuolo players were very much in the spotlight during the winter transfer window. The club's Managing and General Director, Mr Giovanni Carnevali, received plenty of enquiries about the midfielder Sensi, as well as Duncan and several other players: Sassuolo politely declined all the offers.

The club from Sassuolo sold the strikers Marcello Trotta to Frosinone and Kevin Prince Boateng to Barcelona. Boateng is on loan to the team from Spain that also has the option to buy him. The defender, Cristan Dell'Orco, moved from Sassuolo to Empoli (initially on loan but with the team from Tuscany eventually having to pay the full transfer fee)". Young Alessandro Tripaldelli is now on loan to Crotone. Meanwhile the Turkish defender Merih Demiral from Alanyaspor (in the picture on the

left) joined Sassuolo. Demiral

will be signing for Sassuolo after completing a period on loan.

> Gianluca Scamacca, who was on loan to Pec Zwolle (Holland), has now returned to Sassuolo.

Merih Demiral and Giovanni Carnevali

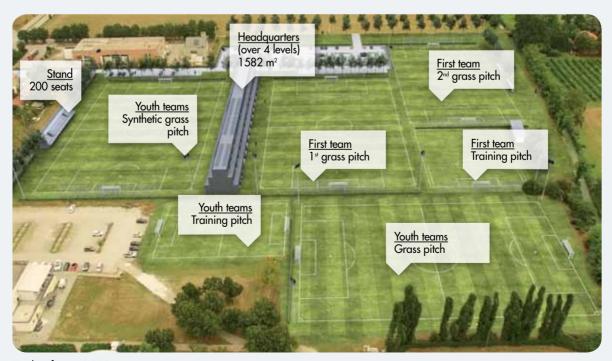




SASSUOLO, THE NEW SPORTS CENTRE IS READY TO GO

Sassuolo has a brand-new training centre all to itself. It is located in a suburb of Sassuolo known as "Cà Marta". The project's designer is the architect Giancarlo Floridi, and the centre was built by Colombo Costruzioni.

"It is a real diamond in terms of its architecture, facilities and functionality", so Giovanni Carnevali, Sassuolo's General and Managing Director, noted. "The materials used - so the lawyer Andrea Fabris assured us, Sassuolo's General Secretary - are of the highest order as is always the case with Mapei". The Centre includes three football pitches for matches between 11-a-side teams. One of the pitches is made using synthetic grass and has its own stand. One of the other two pitches, which are made of natural grass, has a heating system. There is also a pitch measuring 40x47 m for goalkeeper training. The new facility also has 178 parking spaces and a four-storey executive building with an underground level equipped with various utilities (storage space, garages, launderette etc). The centre will become fully-operational over the next few months.



Total surface: 43,000 m²

SPORT AND SUSTAINABI to improve our societies

MAPEI'S WORK IN LOCAL COMMUNITIES TO PROMOTE THE VALUES OF SPORT





"Sport relies upon the concepts of respect, understanding, integration and dialogue, and it contributes to the development and fulfilment of individuals regardless of age, gender, origins, beliefs and opinions. That is why sport is a unique forum for action and reflection to transform our". That is how Audrey Azoulay, Director-General of UNESCO, talked about sport when she outlined the Kazan Action Plan, adopted in the Russian Federation last year. The Plan should provide a direct link between sport policies and the Sustainable Development Goals of the 2030 Agenda, which is the most ambitious and intricate enterprise our planet is about to undertake and was signed by all the governments of the UN's 193 member states in September 2015.

Sport will help achieve other goals on the 2030 Agenda: the green economy, resilient cities and healthy living environments. Approaching sport from an environmental viewpoint is both an economic and cultural undertaking. It is cultural, because sport's communicative and promotional power is only comparable to that of the arts. Its universal across-the-board appeal to people of different ages, origins, languages, beliefs and cultural backgrounds is widely acknowledged.

Sport energises so many people, both physically by getting them involved and encouraging them to take part and in terms of the choices they make.

MAPEI'S PASSION FOR SPORT

Mapei has always placed the concept of sustainability at the focus of its manufacturing and business system, following welldefined guidelines encompassing every aspect of corporate life. Sport plays a fundamental role in this process because it has always been part of Mapei's history, indeed it may be described as being part of its DNA.

Mapei's involvement in sport does not just take the form of sponsoring teams like Sassuolo football team and global events like, for example, the annual UCI Road World Championships, but also through the technical-scientific support it provides through the cutting-edge Mapei Sport Research Centre in Olgiate Olona (Northern Italy), which carries out scientific research in the realm of sport and helps athletes improve their performances in all kinds of different sports.

Mapei's all-encompassing operations in the field of sport also include supplying innovative products and systems and provid-

IN THESE PAGES.

Mapei's involvement in sport does not just take the form of sponsoring international events (like the UCI Road World Championships) and memorial matches, but also through the support it provides thanks to the Mapei Sport Research Centre.





Sport can improve your health. self-confidence. interpersonal relations and performance at work





ing expert technical support for constructing and maintaining both indoor and outdoor sports grounds and facilities.

The Company's modern vision projected into the future and its avowed real commitment to environmental sustainability are partly focused around sport as a means of stimulating the its virtuous and constant corporate growth.

As Adriana Spazzoli, the Group's Operational Marketing and Communication Director, has frequently emphasised: "a company has a very definite place in society, profitmaking is not its only goal. A business has ethical, scientific, humane and cultural responsibilities that are the very backbone of its corporate character and reputation".

Genuine commitment to sustainability allows the Mapei Group to carry out its business in such a way that its social, environmental and economic values are carefully interrelated with each other. Tradition and excellence, a passion for sport and desire to stand out, a love of culture and attention to other people are the key features of the various projects Mapei undertakes to maintain its relations with the community.

SPORTING CULTURE AND THE COMMUNITY

The social side of sustainability is equally important and involves attention to people's well-being, not just the people with whom the company does business but, more broadly speaking, the whole of society.

Among the grounding principles of the Mapei Sport Research Centre's mission is its clear intent to promote a proper sporting culture. It aims at the disclosure and vulgarization of scientifically validated knowledge in order to contribute to spreading a more rational approach to sport, both competitive and recreational, to achieve better results.

Exercise as the focus of the right kind of lifestyle, good practices for promoting mental-physical health/well-being and promoting the social and educational value of sport as a pastime that can help prevent and combat many illnesses: these are the values Mapei promotes and passes on to the environment in which it operates.

The very close ties between Mapei and society as a whole translate every year into significant contributions to social responsibility and the sponsoring of sports-cultural events that the Group decides to support. Just to mention one figure, the investment in this field by Mapei SpA and the Group's Italian subsidiaries amounted to a total of approximately 32 million Euros in 2017.

Being involved in sports projects and events, from the very smallest only reported in the local press to highly publicised international events attracting global media coverage, does not just provide the Group with the chance to strengthen its brand across the world, but also to develop closer ties with all its many customers, friends and partners in a non-business context.

Without overlooking the fact that being involved in sport can improve your health, self-confidence, interpersonal relations and performance at work. Sport can enable you to enjoy a healthy life, personal well-being and excellent social relations. Mapei plays an active part in this process, having learned from direct experience that it takes a combination of sport, good health and environmental friendliness to improve the quality of life and the well-being of people, businesses, society and the environment

Andrea Morelli at work at the Trek Segafredo training camp.



The head of the Mapei Sport cycling programme with the cyclist Elisa Longo Borghini.



Morelli working with Trek Segafredo's technical staff



Champions of the futu



A TEAM OF PROFESSIONALS AT WORK FOR THE NEW CYCLIST SEASON

The new year began as usual at the Mapei Sport Research Centre with its experts offering their wide range of expertise to both professional and amateur athletes. With the professional cycling season just around the corner, the staff headed by Dr. Claudio Pecci have mainly focused on top-class cyclists over the last few months. In conjunction with tests performed on individual athletes at the Centre's headquarters in Olgiate Olona (Northern Italy), Mapei Sport technicians also took time out to attend the winter training camps of all the teams that draw on the expertise of this cutting-edge sports science centre. Andrea Morelli, who is the head of both the Mapei Sport's cycling programme and the Analysis Movement Lab, visited Trek Segafredo's training camp in Sicily last December to carry out initial road tests on both the men's and women's teams. "The athletes laid the foundations for the 2019 season during the 11-day training camp. First, they were interviewed individually, introduced to their new sponsors and had their official photographs taken before performing road tests designed to work out the right training paces for specific sessions over the following days. Just like laboratory tests, road tests are vitally important for both athletes and training staff to assess progress and work out how to gradually increase a cyclist's training load", so Mr. Morelli explained, who first began working with Prof. Aldo Sassi (the Centre's late founder) back in 1995 and witnessed the Mapei Sports Centre being first created and getting operational.

"The team hopes to immediately make an impact with its new signing Richie Porte at the very beginning of the season in Australia and during short stage races like Paris-Nice. Bauke Mollema will be focusing on the Tour of Italy. After winning the Tour of France stage that ended in Roubaix, John Degenkolb hopes to win some more important races. Alongside the Italian riders Fabio Felline. Gianluca Brambilla and Nicola Conci. the team has signed another Italian sprinter that we have been following for some time now, Matteo Moschetti, who will certainly make his presence felt in sprint finishes, and also the climber Giulio Ciccone, who will be attempting to win stages in the grand tours, particularly the Tour of Italy. The most important news this year is the setting up of a women's team, which we think will be one of the strongest in women's cycling thanks to such leading riders as Elisa Longo Borghini, Letizia Paternoster and the British star Lizzie Deignan, who won the World Championships in Richmond in 2015 and will be returning to racing after a maternity break", so Mr. Morelli went on to say. After training Cadel Evans, who won the 2011 Tour de France, Ivan Basso and Ivan Santaromita, Mr Morelli currently coaches Pavel Kochetkov from Team Katusha Alpecin and Edwin Ávila from the Israel Cycling Academy. Since last year he has also been monitoring and coordinating the training programme of Kometa Cycling Team run by Ivan Basso and Alberto Contador.

Matteo Azzolini, who is in charge of functional training for athletes from various sports and devises training plans for cyclists of various competitive standards, is also working with the young riders at the Kometa Cycling Team. The team set up by 'El Pistolero' (Alberto Contador) held its first training camp of the season at Oliva in Spain. "During the days leading up to the camp, we worked with the team's staff on planning the training sessions for the riders. This is the most important moment for the young riders, who all turned up highly motivated and keen to learn. The first training camp is vital for laying the foundations for the work to be carried out in January ready for the beginning of the racing season. As well as getting to know the new riders better, we give them all their new equipment focusing on the setup of their bikes and position of the cleats on their racing shoes, so they are ready to ride confidently. 2018 was the

Matteo Azzolini with the famous Italian cyclist Ivan Basso



Winning debut for Trek Segafredo's women's team: Letizia Paternoster wins the opening stage of the Santos Tour Down Under in Australia



Mapei Spor

Moschetti, wearing the Trek Segafredo jersey, is ready to face his first season as a professional rider.



Testing at the Mapei Sport Research Centre for the young riders from Kometa Cycling Team



team's very first season and the goal now is to keep on improving. The project is aimed at discovering talented youngsters with natural ability and the right character, helping them break into the professional ranks. We hope to be as successful again last year as we were last season with youngsters like Moschetti, Michael Ries and Kevin Inkelaar. The team performed to an extremely high standard right through the season and, as we all know, even though only one person can win, it takes the backing of an entire team to be successful", so Mr. Azzolini noted, a sports technician with a degree in the Motor Sciences and a former competitive cyclist.

Matteo Moschetti is the first magnificent product of the latest young riders' programme promoted by Mapei Sport in partnership with Trek Segafredo aimed at bringing on talented young cyclists. This 21-year-old from Milan, who rode for Polartec-Kometa in 2018, has signed a two-year contract with the American team World Tour after an excellent season in the under 23s and is now ready to make his professional debut.

"I am extremely happy with the start of my career in top-flight cycling. I am living proof that this is a serious and effective project. My dream is coming true thanks to Mapei and the teams I have ridden for. I am the first rider to benefit from this wonderful opportunity, but I hope to be one of many. I would like to thank Luca Guercilena, Trek Segafredo's General

Manager, for the faith he has shown in me, as well as Polartec-Kometa for allowing me to develop in a pressure-free environment. And I would also like to thank Mapei for mediating between the two and I hope they will continue to help me out with my training", so the rising star of Italian cycling went on to say.

This talented young rider has been undergoing physical testing and training with the help of the Mapei Sport Centre for five years now, ever since he joined Viris Vigevano's under 23 team.

"I am extremely lucky to work with Andrea Morelli, Matteo Azzolini, Massimo Induni and all the other knowledgeable and trustworthy experts my teammates and I can rely on." he claimed "If I managed to make my mark as an amateur rider, it is thanks to their professionalism and expertise, which enabled me to handle such a demanding racing season. I remember when I was riding with the under 23s for the first year and they had to devise my training plan to fit in around my school studies that left me with very little free time. After finishing high school, we began to work more seriously, and I gradually began to improve. They taught me a work method. Training always begins with testing at the Centre: we begin to plan for the most important races over the next 365 days".

Giulia De Maio. Mapei Sport, Olgiate Olona (Italy)

NEWS FROM THE MAPEI

WORI

EVENTS, TRADE FAIRS AND PROJECTS BY THE GROUP'S SUBSIDIARIES

NATIONAL SHRINE OF THE IMMACULATE CONCEPTION IN WASHINGTON (USA)



The Basilica of the National Shrine of the Immaculate Conception in Washington, D.C., is the largest Roman Catholic church in the United States and the second largest church in North America. As one of the 10 largest

churches in the world, the Basilica features over 80 chapels/oratories as well as extravagant domes with detailed mosaics in the Romanesque-Byzantine architectural style. The "crowning jewel" of the shrine is the Trinity Dome. It depicts the Christian trinity, the Virgin Mary and a procession of saints who have an association with the United States and the National Shrine. In celebration of the basilica's 100th anniversary, Mapei provided the KERABOND+KERALASTIC (the latter is the counterpart of ISOLASTIC, distributed on the international market) adhesive system to install 14 million pieces of Venetian glass tile across 1700 m² of the Trinity Dome.



MAPEI SPAIN LAUNCHES A NEW APP FOR CERAMICS

Mapei Spain SA has launched a new App available from App Store and Google Play designed to help architectural designers and people working in the building industry to work in accordance with UNE (Una Norma Española) directive 138002:2017, a regulation governing adhesives, grouts and elastic joints, which the Spanish subsidiary of the Group is committed to promoting in partnership with other associations. In 4 simple steps, the App allows you to choose



the ideal product for your requirements from a wide range of Mapei products and can also make an accurate calculation of the quantities that need to be used. Last but not least, the App also allows you to share your results by WhatsApp and email or even save them in the notes on your phone and then transfer them to Excel.

CHURCH OF SAINT SOPHIA, WISDOM OF GOD. LVIV. UKRAINE

Mapei Ukraine, the Group's Ukrainian subsidiary, has been involved in renovation works In the Church of Saint Sophia - Wisdom of God in Lviv. The layout of the church extends over three levels: underneath the church dedicated to Saint Sophia, there is also the Church of Pope St. Clement and the Church of the Holy Sepulchre. The restoration project included structural strengthening work on the main cupola and lantern (using PRIMER 3296, PLANITOP HDM MAXI and MAPEGRID G120) and the installation of mosaics with ULTRALITE S2). The installation team was trained by Marko Rupnik, a Slovenian artist who has installed important mosaics in Fatima (Portugal), the Vatican, and many other religious places.



ITALY: CONGRATULATIONS POLYGLASS!

Passion, intuition and creativity have always been the values that have sustained Polyglass, a subsidiary of the Mapei Group. For 50 years Polyglass has been working alongside its clients, offering 100% waterproof solutions through its range of waterproofing materials and insulating systems. Workshop-scale production soon gave way to industrial manufacturing and, from the late '70s, the company started making a name for itself the world over, especially in the US. An international business, vet Italian to the core. proudly flying the Made in Italy flag.

All thanks to its team: expert professionals devoted every day to fuelling their know-how to help the company deliver the highest possible standards of quality.



A number of events have been planned for 2019 to celebrate this important anniversary.

Hungary

CONSTRUMA 2019 (HUNGARY)

This year's edition of the Hungarian trade fair, Construma, dedicated to the world of construction (from the 3rd to the 7th of April in Budapest), is shaping up to be a great success. Five pavilions will be housing the stands of 600 exhibitors from 14 different countries, extending over an area of 44,000 m² of exhibiting space. Mapei Kft., the Group's Hungarian subsidiary, will treat the 46,000 expected visitors to a display of its extensive range of systems and products. The Mapei Kft. stand will be showcasing products for the installation of large format ceramic tiles and LVT, as well as its thermal insulation systems.

It will also be presenting this year's star event, the Tour of Zalakaros, a cycle race organised by the Hungarian



subsidiary for its clients and business partners. The photo shows the Mapei Kft.'s stand at Construma 2018.









Substrates for resilient materials

STRONG, DRY AND FLAT: THE MAIN FEATURES YOU SHOULD FOCUS ON



The term "resilient coverings" generally refers to floor and wall coverings made from carpet, rubber or PVC. One of the characteristics they have in common is resilience, a mechanical property that allows these types of material to deform so they can absorb impact loads or deformations without breaking.

What properties should a substrate have to make it suitable for bonding these types of material? Let's take a close look at three of them.

■ The first one is high mechanical strength. Why? Because most resilient materials do not distribute the loads acting on the floor. The forces pressing down on the surface of resilient floorings are transferred almost directly to the substrate. It isn't unusual to notice the marks (albeit temporary) left by desks and chairs on PVC flooring. The weight of these objects acts directly on the screed and skimcoat under the flooring.

This is why, according to current standards, the compressive strength of the screed must be a minimum of 15 N/mm² for floors subjected to pedestrian traffic and 30 N/mm² for other types of traffic.

- The second one is a low level of residual moisture. Even though this is a common requirement for all substrates and for different types of floor and wall coverings, it becomes even more important in the case of resilient materials. Why? Because PVC and rubber, for example, are essentially impermeable. If the level of moisture in the substrate is too high, they will swell or detach from the surface.
 - According to current standards, a carbide hygrometer should be used to measure the level of residual moisture in the screed. Going further into detail, the level of residual moisture (R.M.) should be \leq 2% for cementitious screeds and screeds made from special binders, ≤ 1.7% for heated screeds, $\leq 0.5\%$ for anhydrite (gypsum-based) screeds and ≤ 0.2% for gypsum-based heated screeds.
- The third one is flatness. Taking into consideration the characteristics mentioned above, and considering the compact thickness of resilient materials, if any imperfections or irregularities in the substrate are not eliminated, they show up quite clearly on the surface of the flooring. Flatness, therefore, must be guaranteed by taking special care when making the screed and the prescriptions for installing resilient materials must be adhered to.

A practical way of levelling off the surface of a screed and making it flat is to apply a skimcoat. Skimcoats are generally made from high-strength fast-drying cementitious mortars, often with self-levelling properties (such as ULTRAPLAN MAXI by Mapei).

While the three requirements above are particularly important they are, alas, not the only ones. All those working in this sector know only too well that curing, thickness, compactness, cleanliness and other factors all play their part in the successful outcome of a job.

Marco Albelice. Technical Services, Mapei SpA (Italy)



PRODUCTS IN THE SPOTLIGHT

CONSOLIDATING SCREEDS, SKIMCOATING SUBSTRATES AND FINISHING WOODEN FLOORS: A FEW SOLUTIONS BY MAPEL



PLANIPATCH FAST TRACK

It is a fine-grained, ultra-quick drying, thixotropic cementitious smoothing compound that can be used for the local repairing and skimcoating, even down to a "feather-edge", of interior floors, walls, steps and corners where quick hardening and drying, together with a particular smooth final surface, are required. It is suitable for surfaces in residential, commercial and industrial areas.

When mixed with LATEX PLUS.

PLANIPATCH FAST TRACK can be used for feathering or patching properly prepared metal and wood surfaces, old substrates with residues of paints, resin and bitumen-based adhesives, fully bonded resilient and wood flooring.



ECO PRIM PU 1K

It is a one-component polyurethane primer which hardens with the moisture present in the surrounding air and in the screed. It is low viscosity and. therefore, has a high capacity for penetrating into the porosity of the screeds. It is used for the surface consolidation of cementitious, anhydrite and heating substrates, as well as for the waterproofing of cementitious screeds with a residual humidity content higher than the level recommended before installing wooden floors.

Eco Prim PU 1K does not contain solvents and has a very low emission level of volatile organic compounds (EMICODE EC1 R-certified).



ULTRACOAT EASY PLUS

Highly protective, wear and abrasionresistant finish for solid and presanded wooden floors and wooden floors requiring repair. It has very low emission level of VOc (EMICODE EC1 Plus) and is suitable for civil and commercial environments subject to high foot traffic.

ULTRACOAT EASY PLUS is a onecomponent, water-based varnish formulated with 100% aliphatic polyurethane resins and a self-reticulating hardening system which considerably increases its resistance to abrasion and scuff marks from rubber-soled shoes. **ULTRACOAT EASY PLUS** is available in 10 gloss, 30 gloss, and 60 gloss shades.





CONSOLIDATING AND WATERPROOFING SCREEDS



HIGHLY PROTECTIVE FINISH FOR WOODEN FLOORS



ReStelvio **MAPEI 2019**

SUNDAY, 14th JULY

BORMIO - STELVIO PASS

HALF MARATHON 8.50 A.M.

(only open to members of FIDAL and promotional associations)

RUNNING EVENT OPEN TO ALL 9.00 A.M.

NON-COMPETITIVE E-BIKE RIDE 9.10 A.M.

WITH A DEDICATED START GRID

RE STELVIO - MAPEI COMPETITIVE CYCLE RACE 9.15 A.M. 35TH EDITION

(for FCI's and Italian National Cycling Commission' members only) Start for the Women's Cycle Race

RE STELVIO - MAPEI COMPETITIVE CYCLE RACE 9.30 A.M.

35TH EDITION

(for FCI's and Italian National Cycling Commission' members only) Start for the Men's Cycle Race

AFTERWARDS "ALDO SASSI" MEMORIAL BIKE RIDE

> (for all those interested, alongside champions of the former Mapei Professional Cycling Team and other sport VIPs) TWINNED WITH "PEDALA CON ALDO" OCTOBER 13TH, 2019

TIMELIMIT FOR ALL PARTICIPANTS 2.00 P.M.

PRIZE-GIVING CEREMONY in Piazza Kuerc, Bormio 4.00 P.M.

> A FREE TRAINING SCHEDULE FOR RUNNERS AND CYCLISTS IS AVAILABLE FROM: www.mapeisport.it

A 21.097 km climb from BORMIO (1,225 m a.s.l.) to the STELVIO PASS (2,758 m a.s.l.)

Difference in level: 1.533 m.

STARTING LINE: VIA AL FORTE (BORMIO CITY CENTRE) RETURN FROM STELVIO PASS TO BORMIO STARTING FROM 2.00 P.M.

+ \$\frac{1}{2} \text{\ti}\ext{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\ti}\ext{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\ti}\ext{\tin}\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\ti}\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\ti}\text{\texi}\titt{\text{\text{\text{\text{\text{\tii}\tittt{\text{\text{\tii}\tintt{\text{\text{\text{\text{\text{\text{\text{\tii}\tittt{\text

E-BIKE RIDE WITH A DEDICATED START GRID

Thanks to: Parco Nazionale dello Stelvio

ENTRIES

FROM MARCH 1ST TO JULY 11TH

at the web site www.usbormiese.com or else at the Unione Sportiva Bormiese headquarters, Via Manzoni, Bormio Maximum amount of entries: 3.000

Entry fee:

35 euros, for entries from 1ST March to June 15TH **45 euros**, for entries from June 16[™] to July 11[™]

The fee includes:

- Re Stelvio-Mapei jersey, which you are kindly requested to wear
- Clothes transport service up to the Stelvio Pass
- Refreshment points alongside the course and at the finish line
- Shuttle bus service from the Stelvio Pass to Bormio (for athletes)
- Commemorative medal
- Photo and race certificate. both available and downloadable
- Personal race time

N.B. Free entry on the website www.mapei.it for Mapei customers using their customer code and for readers of Realtà Mapei using their Realtà Mapei code

HOTEL INFO

Phone: +39 0342 903300 - booking@bormio.eu www.bormio.eu

























SET the **MOOD**

PERSONALIZE YOUR SPACE WITH MAPEI GROUT COLOUR COLLECTIONS



There are no two ways about it. The most attractive joints are always by **Mapei**. 5 collections to suit every taste and 4 products to cover all your needs: **Ultracolor Plus**, **Kerapoxy**, **Keracolor** and **Flexcolor**. **For all your wall and floor coverings, make room for Mapei coloured joints**.

EVERYTHING'S OK WITH MAPEI



