

INTERNATIONAL

[Realtà MAPEI]

ISSUE 47

**DANTE
BENINI**

Interview at page 4



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Skyline of Porta Nuova, Milan.



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the websites www.mapei.com



COVER STORY. Living Art in Moscow is the largest work of art in the world. It is made up of 5 towers, designed by Dante Oscar Benini. Mapei took part in the project by supplying products for wall coatings and resin floorings.

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No alternative model to Europe

Giorgio Squinzi launches a pro-European message during the conference “European scenario under the Italian presidency”

Europe is the only possible way ahead. That is why the forthcoming European elections (to elect the representatives of the European Parliament) next May, from 22nd to 25th depending on the country, are a crucial test and business people are ready to get involved and confirm their support for Europe, in order to defeat the Eurosceptics. This, in a nutshell, is the message that the President of the Confindustria (the Confederation of Italian Manufacturing and Service Companies), Giorgio Squinzi, sent out on 10th January when addressing the audience at the Accademia dei Lincei (the oldest academy worldwide and one of the highest Italian cultural institutions) during a conference on the “European scenario under the Italian presidency”.

Squinzi’s considerations are based on the current economic situation. Studying the global prospects for the next few decades “there is no alternative model to Europe that is even partly convincing”. The reason for this is that “divided and left to our own devices we will have no chance of being a global player and we will condemn ourselves to being a genuine irrelevance”. If we decided “to reverse towards renationalisation, we would lose

our entire capacity to keep up with the future”. On the other hand, the European Union “in its entirety has the capacity to act as a global power” and to make its individual member states count much more.

To underline what he was saying, Squinzi quoted the projections that the World Bank recently published, according to which “in 2050 no European country, taken individually, will be in a position to sit at the table of some hypothetical G7”. Not even such a solid nation as Germany can do without Europe. In this key, “2014 will be a crucial point of no return and a decisive challenge”, because it will pose important questions about the survival of the single currency. “If we manage to strengthen the Euro we will enjoy unimaginable benefits in terms of our competitiveness”.

Squinzi went on to talk for some length about the Euro and the strategy to adopt over forthcoming months. Basically what is needed is not less Europe but more “Europe to overcome the crisis and gain strength”. Even just considering leaving the single currency would be tantamount to giving up on “a potential catalyst for competitiveness and economic growth”.

Indeed, despite the crisis, the Euro “continues to be something powerful we can rely on for the future, which will allow us to more easily overcome the present crisis”.

Squinzi emphasized the fact that, contrary to what we might think, European business people truly believe in Europe: “on the verge of crucial elections, it is important to persuade everybody that we cannot afford to abandon what I believe is strategically the right way ahead for our future”.

Most notably, there is a genuine fear that the European elections might see a rise in the Eurosceptics, who “drawing on demagogical arguments will try to win approval based on the false idea that Europe is just an unfair source of duties and sacrifices for countries already suffering due to the crisis”.

Squinzi ended his speech by expressing his firm belief that the way ahead will indeed be a challenge “but it is a challenge we cannot avoid; there will certainly be a price to pay for undertaking the tricky task of constructing Europe but, most significantly, this will be of inestimable value both for us and for future generations”.

The future of the European Union

Giorgio Squinzi's *lectio magistralis* given at the opening of the 838th academic year at Modena and Reggio Emilia University

On 13th January, the University Rector, Professor Angelo O. Andrisano officially declared the opening of the 838th academic year at Modena and Reggio Emilia University.

The ceremony, hosted at the Faculty of Medicine and Surgery in Modena (Central Italy), included a series of speeches culminating in Giorgio Squinzi's *lectio magistralis* on Europe and the future of the European Union.

Young people and universities: the driving force behind Europe

Squinzi launched an appeal to young people to vote at the forthcoming European elections, "a fundamental steppingstone for our future". "Already sceptical and relatively unmotivated by national politics" so the President of Confindustria, the Confederation of the Italian Manufacturing and Service Companies, pointed out, "they feel even more detached from European politics at this crucial moment when the future of the Union is being played out at one of the most tricky moments in its history".

Squinzi claimed that our chances of re-launching and recovering growth lie within the European Union, starting with young people and universities, which "now produce young Europeans".

Emerging from the crisis

In the wake of the crisis that began in 2007, Squinzi had no doubts in claiming that the world is still suffering its effects and that we have yet to come up with any effective and long-lasting remedies for emerging from this recession. "Governments - so Squinzi said - are striving to come up with different means and ways of reactivating solid growth and defeating the great affliction of our times: a lack of jobs. Europe is struggling to find its own way out of the recession due to its weak identity, an enduring lack of political authoritativeness, and no solid process in place for tackling emergencies". Squinzi has no doubt about the future of Europe, because "it is the homeland for young people, who travel, study, share experiences and knowledge in a way they never have done before. It has just set up an important investment programme until 2020 based on know-how, the environment, research and reducing territorial disparities. It is a leader in technology and industrial production of the

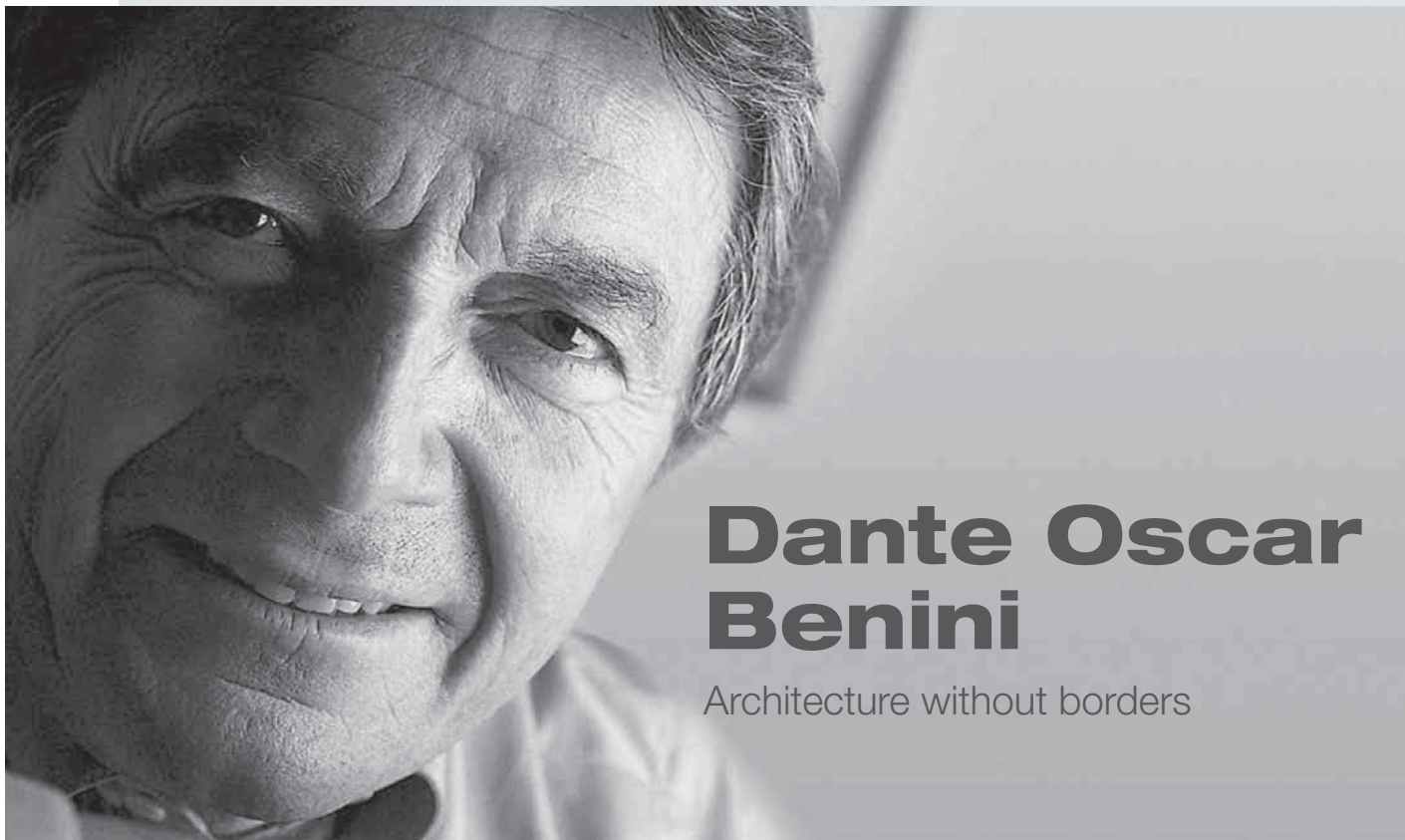
highest standard. Its welfare and health systems are envied the world over, and it is still a realm of peace and stability, as its founding fathers envisaged it".

Less bureaucracy and greater involvement

Squinzi has very clear thoughts on the excess of bureaucracy that has a stranglehold on the European economy, pointing out that "we will only have a united Europe if an internal system is gradually set up to facilitate work, business and innovation: this, in a nutshell, means synchronising all the member states' tax and labour laws, leaving greater room for free initiative, and focusing on the innovative values of the real economy at which we excel".

IN THESE PHOTOS. A few moments of the *lectio magistralis* given by Giorgio Squinzi at the opening of the academic year at Modena and Reggio Emilia University.





Dante Oscar Benini

Architecture without borders

You are renowned for being free from predetermined schemes. So who were your maestros and what do you think you owe to them?

As is, perhaps, quite well known, my initial training came from the fact that I grew up in the same neighbourhood as Carlo Scarpa and spent time with him from the age of 9 to 23, which actually resulted in me working with him on a very empirical basis from the age of 14 and then much more seriously at a later date.

I then moved to Brazil, where I gained a much more aggressive and determined professional education from Oscar Niemeyer, who was also my university tutor.

How important was your training abroad?

As I said, it was crucial, because it opened my mind, until then I had been almost provincial in my thinking, even though Venice was such an international city. My mentality and approach to the world were extremely constrained and confined. Living abroad allowed me to learn about major projects, major capitals and major global interests.

One of the acknowledged characteristics of your projects is that of creating works that adapt to their setting. Would you like to explain to us more clearly what principles inspire you in this respect?

I always say that a work of architecture inevitably blends in with its setting, either by analogy or by contrast, and this was one of the very first dogmas I learnt from Bruno Levi in relation to organic architecture. And then I always set out to ensure that any new project seems to have

always been around and is only noticed by those people who, due to their sensibility, discover a new emotion. Alternatively, I design projects that stand out so much that they actually manage to invent their own setting, thereby becoming a definite landmark.

Do you like these cities? What can we do to improve them?

In this case we must inevitably lapse into such rhetorical clichés as “Italy is an outdoor museum” or “historical Italy must not be touched”. The truth is that the Italian historical and artistic heritage is being left to die. Italian assets are not being enhanced, Italy is actually an immobile nation and Italians are as immobile as Italy itself. We must follow the same developmental processes as other countries and envisage life and the economy running together out into the world, in order to make Italians citizens of the world.

Cities are changing following guidelines increasingly inspired by the quality of life and living, and design plays a vital role in this process. Does this inevitably mean that the architect's job is changing too?

At last the kind of efforts I have been making my entire life are finally getting somewhere. Whenever I am at a conference, I love to say that until 20 years ago architects were described as people of good taste, now they are acknowledged as having a social role to play, which I believe is the only good reason for getting involved in architecture.

More and more skyscrapers are being built around the world. What do you think about this process and how do you think the kind of cityscapes we are used to seeing can coexist with these new extremely tall buildings?

Building skyscrapers is simply a means of saving space and I believe it is merely a consequence of protecting our soil and the results of technological progress coming from United States in the early 20th-century that the world is only now really becoming aware of and understanding.

If I were asked the question "What don't you like about skyscrapers?", my answer would be "Anger at not having designed them all myself".

The watchword in today's building industry seems to be "Green Building". What guidelines do you follow for designing an eco-sustainable building?

Amazement and astonishment. Here again I believe that, ever since man has been around, it must always have been the architect's job to construct something as comfortable as possible, spending as little energy as possible, and causing as little pollution as possible.

Unfortunately, speculation, ignorance and the recklessness of apartments builders have created an urban disaster, and once again we will have to rely on technology and perhaps a few more rules in order to construct along guidelines, which, even though they might occasionally be contravened, can guarantee a better way of building.

The economic crisis we are going through is also closely related to the world of building. How can design and the choice of materials help us tackle this situation?

The current economic crisis does not just closely concern the world of building, it concerns the world of building more than anything else. Everything is connected to the world's need for housing, which, in my opinion, is the architect's primary task or, in other words, the need to build low-cost housing for everybody.

And, in doing this, a deep understanding and equally deep awareness in choosing how to build (and the building process and materials) can lead to extremely respectable houses at very reasonable costs.

How can clients influence the work of architects?

In the same way that architects can influence clients. They just need to have a common goal. Architects and clients usually choose each other and complement each other.

Constructing new buildings or salvaging and redeveloping existing constructions. It would seem that the latter approach to architectural design is more closely tied to respecting constraints to the detriment of creativity. But is that really the case?

I think both approaches are equally important. Construct-

CONSTRUCTING NEW BUILDINGS MEANS CASTING AN EYE AROUND THE WORLD

ing new buildings means casting an eye around the world; salvaging and redeveloping existing constructions means saving cultures and traditions. Two extremely difficult tasks, but equally creative and important; first and foremost because old buildings must be readapted to living requirements as well as being redeveloped.

Cities are spreading and it is claimed that by 2050 the majority of the Earth's surface will be urbanised. Architecture will play a key role in this process. What is, and what will be, the architect's task in the near future?

Vision, determination and courage are the three factors determining the future of human life, possibly also through architecture.

Your *Living Art* project clearly reveals the close ties between architecture and art. Can modern art still influence architecture and vice versa?

What was previously said about clients also applies to architecture and art: it is just an obvious and indispensable part of a whole.

Freedom to design and freedom to build. Are there any differences between Italy and other countries around the world?

There is a world of difference. Many countries enjoy freedom, Italy is harassed by people who love to use mediocrity to make a name for themselves. Mozart/Salieri.

How can identity and globalisation be made to coexist in a work of architecture?

I do not think there is any difference between them. For me globalisation means a world without borders or passports, where everybody can find their own way of being, acting and coexisting everywhere, following the same guidelines, whose only variable is tradition and culture that must somehow be incorporated in order to live in a global world.

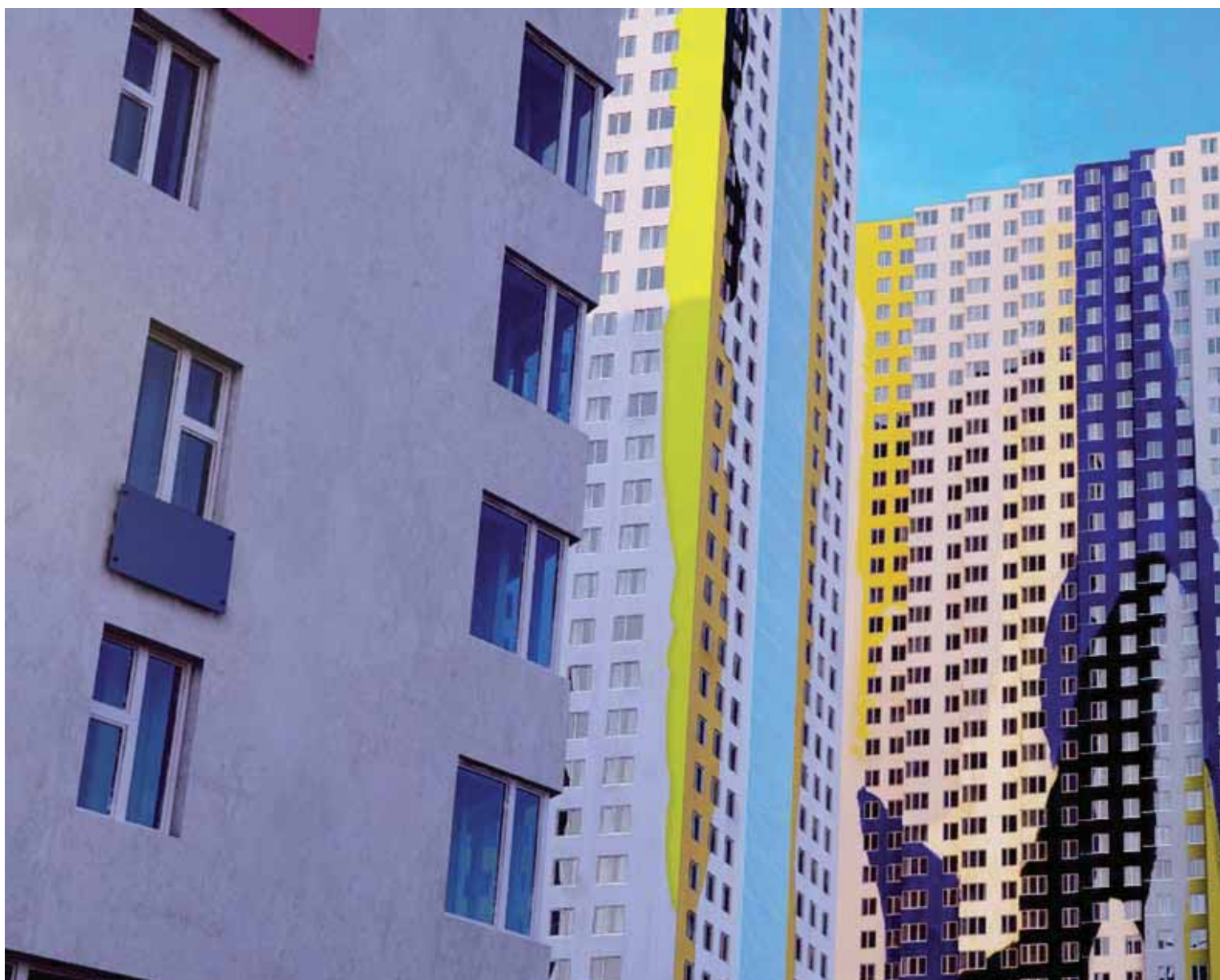
Are buildings the only truly tangible (and lasting) signs of the times? What kind of times are we living in as regards architecture?

Certainly not a Renaissance, at least not in Italy. Around the world thinking focuses on people, achieving the best possible, social factors, development and progress. Italy is just "a void".



Living Art: the largest work of art in the world

Mapei in Moscow to decorate five “made-in-Italy” skyscrapers





A joint Italian-Russian collaboration has conceived a residential complex of enormous cultural, artistic, economic and architectonic value in Moscow. This is "Living Art" by Dante Oscar Benini and Mauro Arlati, the largest work of art you can actually live in, built in an area that, until just a short time ago, was regularly invaded by cars. In fact it is so big that, once completed in 2016, it will have a place

in the Guinness World Records as "The largest work of art in the world". At the moment, two of the five towers are ready. Presented in Milan last year on the 25th of November, this residential project is the fruit of the collaboration between Alexey Alekseevich Dobashin, the founder of KROST (currently one of the largest investment groups in the building sector in Russia), the architect Dante Oscar Be-



FACING PAGE.

Mauro Arlati, on the left, and Dante Benini, on the right.

BELOW. A rendering of the completed towers.



IN THE SPOTLIGHT

COLORITE PERFORMANCE

It is a paint for internal and external walls, made up of non-saponifiable, pure acrylic resin in water dispersion. COLORITE PERFORMANCE is resistant to all climatic conditions and the aggressive attack of smog, salt and sunlight, and provides a long-lasting protective coat for the substrate. It is ideal for painting all old and new surfaces, including those which are already painted, where both an attractive, smooth, semi-gloss, silky finish and a long-lasting, protective coat are required.

It is available in a wide range of colours which may be obtained with the ColorMap® automatic colouring system.

It can contribute up to **3 points** to obtain the **LEED** (Leadership in Environmental Design) certification.





All your works stand out for an obvious symbiosis of material and art. Where does this idea come from and how has it evolved over time?

It comes from a period of figurative painting on the island of Ibiza in the early 1970's. While I was studying the motion of sunlight on a wall in a little alleyway in Ibiza on a Spanish afternoon, I sensed the beauty of the colour white lit up by powerful sunshine that was gradually fading and colouring the white wall with the various shades of twilight.

What is your relationship with the world of architecture and design?

I have always worked with architects, mainly from Milan, ever since the start of my career in 1960. The sheer size of my works and the materiality that makes them reminiscent of sculptures have been the key to my working partnerships with architecture firms resulting in my various projects. This work in Russia came after a telephone call with the architect Dante Benini, who, after looking at one of my works in his wonderful home, invited me to help work on the colour scheme for this project in Moscow.

How does constant progress in products and the technical-scientific experimentation lying behind them contribute to the creation of your works?

I have always been completely enthralled with material and colour: that is where my curiosity for technical-scientific research comes from. It is extremely rewarding to take part in specific projects working with technicians to improve the quality and durability of works, as in the case of this special palette of colours created with Mapei to enhance the quality and durability of colours applied to outside sur-

faces subject to extreme conditions.

Are there any advantages to being the artist who has created what has been described as the world's biggest work of art?

I certainly do not suffer from vertigo any more. But now I am just waiting: if there is some follow up to the project then that would be perfect, otherwise my life will not change one single iota and I will simply go back to the sunshine island.

In an increasingly technological world is there still room for creativity and colour?

Interacting with the client of such an important enterprise like Mr. Dobashin was a very pleasant experience, particularly during the initial phases: you talk about a rather visionary project and they listen to you and you can see enthusiasm and openness to a new idea in their eyes. Then you have to wait for a yes, a no or a perhaps, finding out whether the job will go ahead or not, and while you are waiting for these answers your mind has already moved on to another project, another step along the path of your own relationship with art. That is the really wonderful thing: the future.

Does being the continuators and conveyors of Italian cultural-artistic tradition still make a difference around the world?

I was born in Milan, I am Milanese, I travel all over the world and I am proud of being a Milanese Italian from Ibiza and a citizen of the world. I will leave any such judging to those who still have the time to do it. We will see in the future.



nini and the avant-garde artist and Maestro of colours Mario Arlati.

Living Art has a unique architectural form: over an area of 45,000 m² four 160 m towers with 45 floors (each tower has 600 apartments with 50 m² of floor area for each apartment) and a 110 m tower with 33 floors will reach towards the sky, along with an arts park, a sports complex and underground car parks, all to create an urban environment in which everything you need is within easy reach. The project has been conceived within a framework of urban requalification and the promotion of sporting and cultural activities and has been created to offer a home to all social classes.

"I wanted to create areas for all those who inhabit Living Art where they can come together, to create an atmosphere like that of old courtyards and, at the same time, a place where you could breathe Italian art", explained Dobashin. "I wanted Moscow to have a place just like this, and thanks to Benini and Arlati that is exactly what we are achieving". "The aim of renovating a suburb, such as the one where Living Art is being built", explained Benini "is to give a new identity and a new image to a rundown area, without falling into the trap of building yet another housing estate for the working class. And so it was decided to make these homes real works of art, albeit works of art that cannot be sold as such (how could you possibly sell the panel of a skyscra-

per!), yet which at the same time are unique and iconic in equal measure, as well as being liveable".

Mapei colours in the skies of Moscow

And that is how the Milan artist Mario Arlati had the idea to create "affrescoes" on the skyscrapers: harnessed 160 m above the ground alongside 1,500 workmen operating round the clock, the painter has managed to transform a residential complex into a kaleidoscope. "Behind the skyscrapers" said Arlati, "In the grey skies of Moscow, emerge the hues of the coloured roofs of Saint Basil Church. For me this has been a great source of inspiration, together with the knowledge that playing in the suburbs is a real stimulus, because elegance and quality work has helped enrich the area". Arlati's team painted the towers in five different colours: blue and red (which are also the colours of the Russian flag), white, black and yellow. Most of the surfaces were sprayed, but the final touches and finishing work was carried out exclusively by hand: not a simple task when you have to work suspended 160 m above the ground. The result is an enormous painting with more than 45,000 m² of colours developed and supplied by Mapei who, right from the initial design phase, worked alongside the artist, the designer and the client to choose the most high performing product system to meet the far from simple requirements that a work of art

IN THE SPOTLIGHT QUARZOLITE BASE COAT

It is a coloured silicone resin-based paint in water dispersion, with microgranular quartz and selected charges. It is used to even out the absorption of the substrate and promote bonding of successive coats of paint and layered finishing materials from the QUARZOLITE range. QUARZOLITE BASE COAT is indispensable when "scratch-effect" finishes are applied, to avoid the substrate showing through the more transparent part. It may be used to even out the surface, by creating an even finish and by covering small imperfections. When applied in white, or in a colour similar to the final coat, it helps to integrate the final coat particularly when bright, lively colours are applied, which do not usually have good covering properties. It can contribute up to **3 points** to obtain the **LEED** certification.



MAPEI'S CONTRIBUTION FOR THE ROSSO | RED | ROJO EXHIBITION BY MARIO ARLATI

The relationship between Mapei and Mario Arlati, just like the Moscow experience of Living Art, is based on a constant exchange of ideas between the Milan artist and the company's technicians. Their common objective is to create finishes with the ability to express all the power of colour, but without forgetting all its functional aspects.

Mapei offered support for Rosso | Red | Rojo, an exhibition held from the 29th of June to the 21st of July, 2012 at the Milan Stelline Foundation, in which 22 works of art by the artist invited visitors to undertake a journey through the colour red. The star was undoubtedly red, with its ability to unleash a particularly evocative power and, according to scientific studies, to offer 10% more emotions compared with other colours we observe. A theme that also involved other artists and experts who expressed their own personal sensitivity and experience on this journey through the colour red: from the music of Cecilia Chailly with her harp to the photography of Giovanni Gastel.



ON THESE PAGES.
MAPEFLOOR I 300 SL was used for the resin floors in various areas inside no. 2 Tower.

work of art like this demands. KROST opted for a technical solution which, to reduce construction costs, eliminated the application of a thermal insulation system in favour of traditional render on walls isolated on the inside. Mapei researchers prepared numerous colour samples to obtain a three-dimensional effect from the paint, without overlooking its performance in terms of durability. The surfaces were undercoated with coloured acrylic QUARZOLITE BASE COAT to regulate the absorption of the substrate and promote adhesion. The choice included the application of a coating of white QUARZOLITE GRAFFIA-

TO SP 1.8 mm, a product manufactured for the Polish market. This product is a flexible, fibre-reinforced, single-spread coating with a scratch-effect finish for interior and exterior walls made from acrylic resins in water dispersion, selected graded charges, quartz and light-resistant pigments. Another finishing product employed was COLORITE PERFORMANCE, a pure acrylic resin-based paint in water dispersion for protecting and decorating interior and exterior surfaces where a satin, semi-matt finish is required along with protection from aggressive surroundings and sunlight. COLORITE METALLIC GOLD was

IN THE SPOTLIGHT MAPEFLOOR I 300 SL

It is a two-component epoxy formulation suitable for self-levelling and/or multi-layered resin floorings and/or as a paint with an attractive smooth or non-slip finish. It is safe for the environment and contains no nonylphenol, which makes it particularly suitable for the foodstuffs, chemical and pharmaceutical industries. After application, surfaces are continuous and flat with a highly attractive finish. It has excellent resistance to chemicals and wear and may be used in both self-levelling and multi-layered systems. It can contribute up to **3 points** to obtain the **LEED** certification.

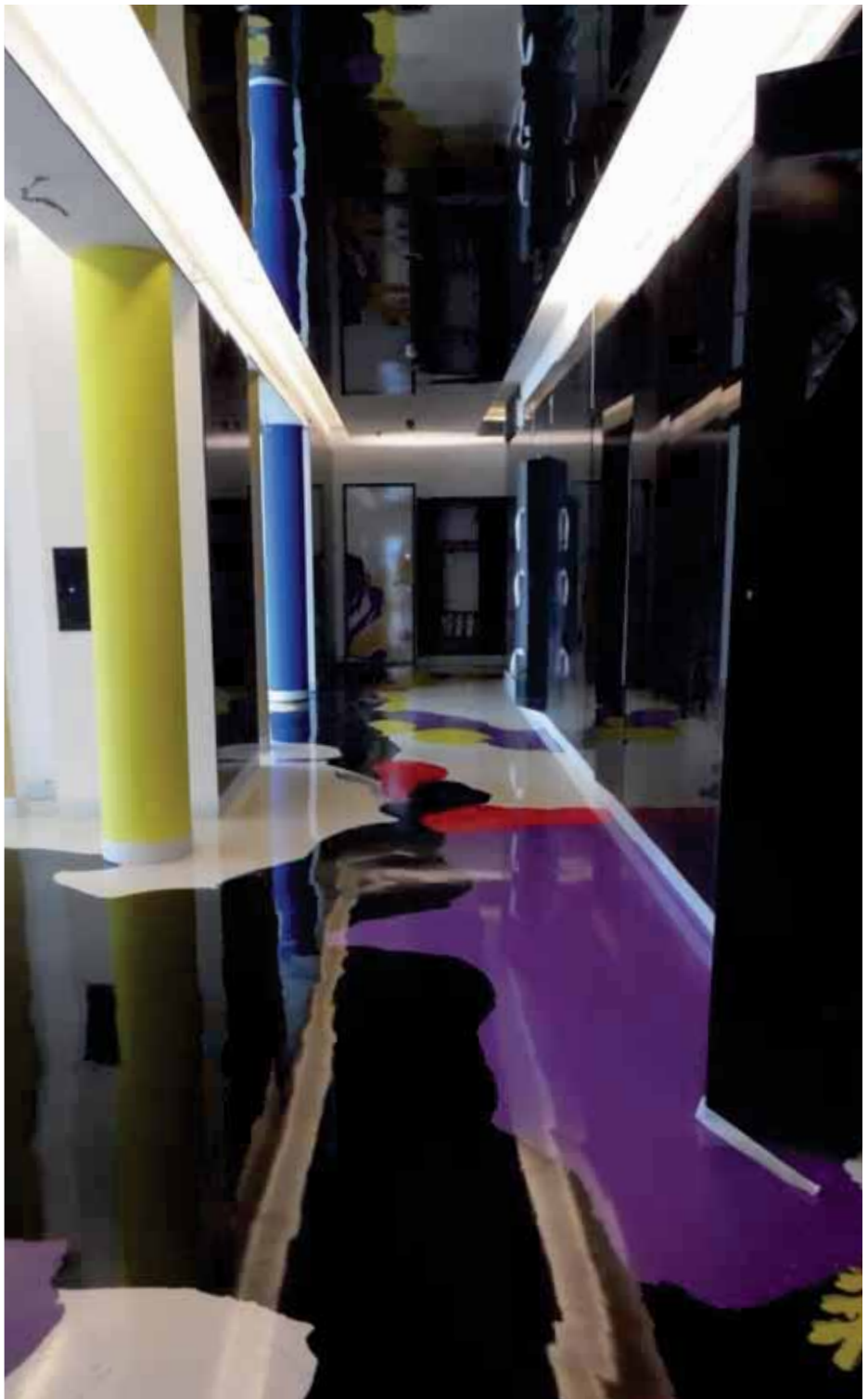




with the same characteristics but tailor-made for this important site.

Resin floors

Colours were also the dominating feature for the resin flooring in some of the communal areas in no. 2 Tower. In this case, after treating the surfaces with PRIMER SN, the two-component epoxy formulate MAPEFLOOR I 300 SL was applied, the ideal product for resin floors with a highly attractive smooth, non-slip finish. The artistic chromatic effects were obtained by adding MAPECOLOR PASTE, a specific colouring system, to the product. Exceptional products for the world's largest work of art you can actually live in, that also includes small and larger works of art in areas within the complex, such as paintings and sculptures created by two Russian artists, the painter Aleksej Parfenov and the sculptor Natal'ja Opiok. Such a rewarding project for all those involved, including of course Mapei, for a job that, thanks to the colours provided by the company and the artwork of Arlati, really has made this complex seem like a modern museum of contemporary art.



Technical Data

Living Art, Moscow (Russian Federation)
Period of Construction: 2014-2016
First Intervention by Mapei: 2012-2013
Intervention by Mapei: supplying products for external wall coatings and interior resin floorings
Client: Krost
Project: Dante O. Benini & Partners Architects
Art Director: Mario Arlati
Mapei Corporate Technical Services and Coatings Lab: Massimo Seregini, Gianluca Brichese, Massimiliano D'Ambra, Gino Kuijpers, Mapei SpA (Italy)
ZAO Mapei Co-ordinators: Irina Boldyreva and Vladimir Kovalenko, ZAO Mapei (Russian Federation)

Mapei Products

Wall coatings: Colorite Metallic Gold, Colorite Performance, Quarzolite Base Coat, Quarzolite Graffiato SP 1,8
Resin floorings: Primer SN, Mapefloor I 300 SL, Mapecolor Paste

For further information see
www.mapei.com and www.mapei.ru

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for a bright and
colourful ambience”



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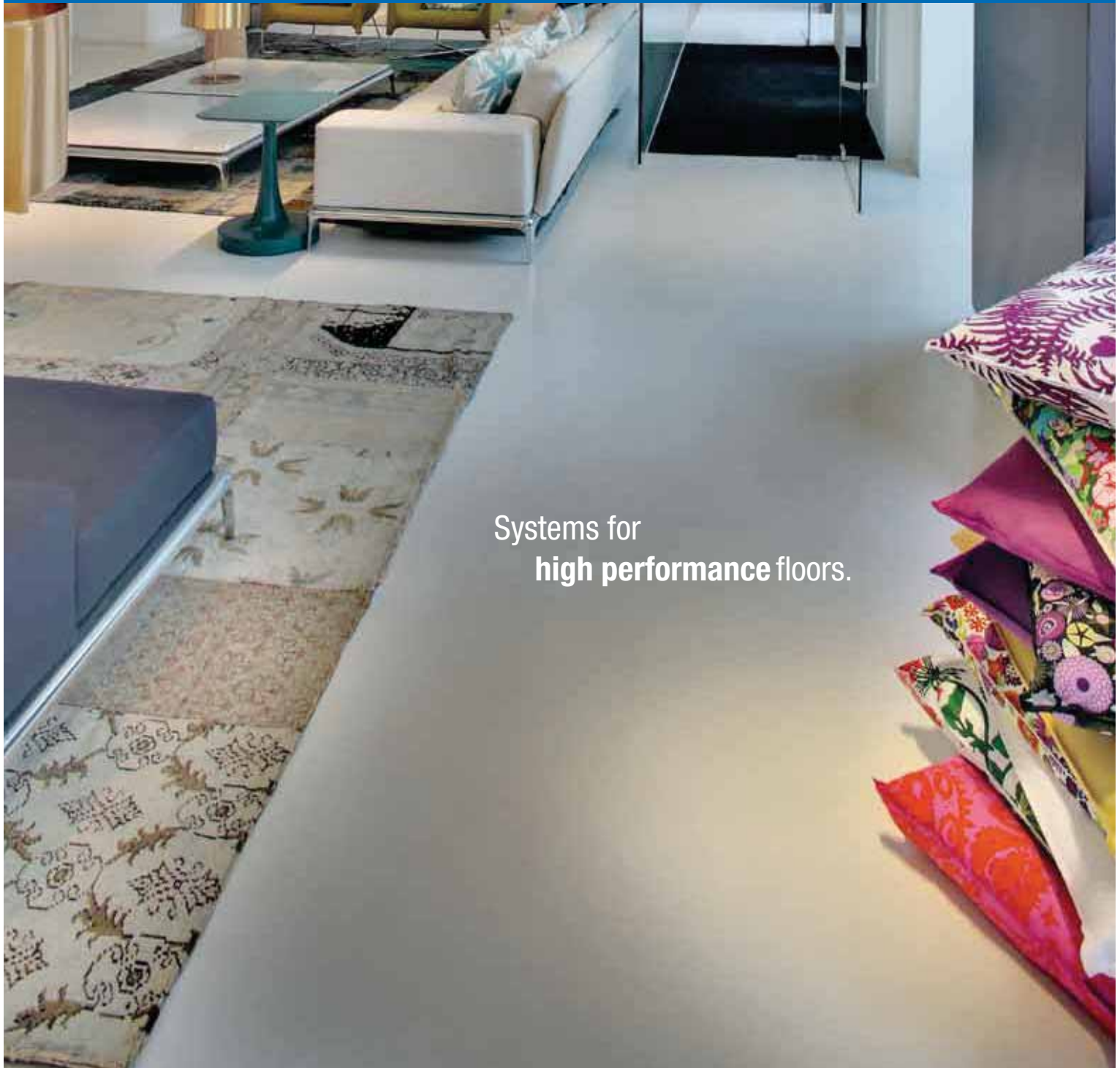
The new internal colour collection of Mapei. Bright colours, divided in contemporary schemes. For a bright and colourful ambience. The high quality and durability of Mapei coatings combine vivid colours with an optimum performance.

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Not just

Notes and thoughts about the 22nd Winter Olympics in Sochi

The Olympics have always been the most eagerly awaited event that every athlete dreams of and, nowadays, from a communications viewpoint they are one of the most noteworthy and eye-catching global media events of all.

For about two weeks the whole world watches an event that provides an exceptional showcase for the host nation.

In this respect the opening and closing ceremonies of the Olympics have turned into an opportunity to review the nation's history, enabling us to easily assess the current state of the nation in question. Sport is increasingly becoming tangled up with political, economic and commercial interests requiring enormous efforts on the part of the organising nation. Efforts which, in most cases, are rewarded thanks to new structures and infrastructures that become an integral part of the nation's landscape after the Games are over, and also due to the economic boost provided by the Games that can lift an entire nation.

Operating on five continents either directly or through its subsidiaries, Mapei has been a key player in the Olympic Games for a number of decades. Mapei product systems are used in sports stadiums and structures, as well as the specially designed reception facilities and infrastructures, to ensure durable works are constructed right on schedule.

As we can see from the following pages, the company, through its Russian subsidiary ZAO Mapei, has been actively involved in constructing various structures for the 22nd Winter Olympics that were held in the Russian city of Sochi.

The most expensive Games in Olympic history

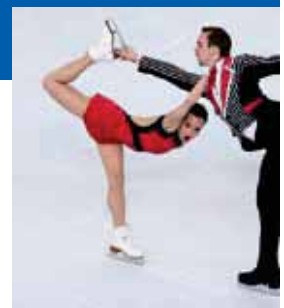
The Games were held entirely in the borough of Sochi but were split over two locations: a set of facilities in Adler and another up in the mountains of Krasnaya Polyana. Adler Olympic Park is located on the coast of the Black Sea. All the buildings were constructed around a central reservoir, where the square was built for the medal-awarding ceremonies. All this created a highly compact image connecting Fisht Olympic Stadium to all the surrounding facilities.

The city of Sochi's accommodation facilities were enhanced by providing 40,000 extra beds in nine new hotels - mainly 3 and 4 star - and lots of these structures will eventually be converted into housing and placed on the property market.

It is worth remembering that Sochi is a seaside resort, an ideal holiday location for anybody interested in combining relaxation with health care. Its enduring vocation for tourism originally dating back to the pre-revolution period is now being further enhanced. Sochi was once the most popular tourist destination for the wealthy, who had their own *dachas* (second homes) built along this stretch of coastline. The seaside facilities for mass tourism really boomed during the Soviet period and, at the same time, the city continued to be the most popular holiday resort for VIPs and members of the political elite.

These were the very first Olympic Games to be held in the Russian Federation - the Soviet Union actually hosted the 1980 summer Olympic Games in Moscow - and they were the most ex-

Sports



Sochi



Games

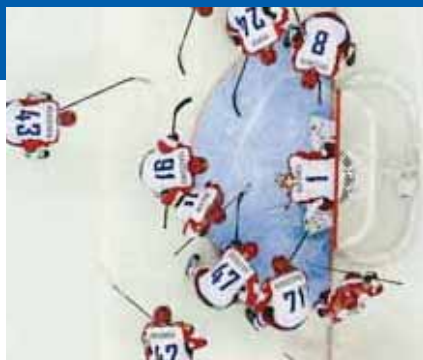
expensive ever at a cost of 51 billion dollars, with three Olympic villages and other infrastructures that have transformed the valley and coastline of this city on the banks of the Black Sea. Very expensive games, even more expensive than the Summer Olympics held in Beijing in 2008 on which China spent 46.5 billion dollars, and which also included the longest official Olympic torch relay in history, covering over 65,000 km and involving approximately 14,000 torch carriers.

Plenty of other ingredients that have nothing to do with sport also ignited this Olympic flame. Terrorism, civil rights and geopolitics took centre stage, as Russia seem to be opposed on every front by other Western powers.

In any case, and despite the ferocious arguments preceding them, the Sochi Winter Olympics have already been a success, at least as regards the property market. That is according to forecasts made by Casa.it Study Centre, a specialist research engine for property. Casa.it's experts have analysed the property market trend in this Russian tourist location on the Black Sea and found reiterated increases in the value and turnover of property, a constant with the Winter Olympics ever since they were held in Albertville (1992).

Indeed, after Sochi was officially awarded the 22nd Winter Olympics (4th July, 2007), the value of homes in this area increased by over 20% in just 18 months.

The rise in prices continued from the end of 2007 to the end of 2012, thanks to massive investments made in the Russian resort's infrastructures and links.





2014 Winter Olympics: Mapei was there too

The town of Sochi has a new look, with the construction and modernisation of structures used to host the Games, as well as the athletes and spectators. Mapei products have been used in various buildings, which are presented in this article.



Olympic village

For this village, which during the Olympics hosted the athletes, trainers and staff, Mapei products have been used in more than 50 buildings (used to host 3,000 people in 1,700 apartments) to waterproof substrates (MAPEBAND), grout joints (ULTRACOLOR PLUS) and seal expansion joints (MAPESIL AC) of surfaces in the bathrooms and showers covered with porcelain and ceramic tiles.





Gornaya Karusel tourism and sporting complex

This complex was built at the foot of Mount Aibga to host skiers who came to enjoy the sport in this area. It was bought by Gazprom in 2008 so that it could be used to welcome tourists during the 2014 Winter Olympics. It now includes tourist villages, a café, a restaurant, shops and an aquatic theme park with 4 swimming pools. Mapei supplied MAPELASTIC to waterproof the pools and the areas around the pools. The mosaic used to cover the pools' surfaces was installed using the KERACRETE system before grouting the joints with KERACOLOR FF+FUGOLASTIC. MAPEFILL was used to anchor metal elements while the pools were being built and to repair the external terraces.

Hyatt Regency hotel

This luxurious hotel is located in the old part of Sochi and has numerous meeting rooms and areas for special occasions. During its construction, MAPEGROUT THIXOTROPIC was used to smooth irregular surfaces and to repair the corners of various columns. MAPEFILL and MAPEFILL 10 (the latter is manufactured and distributed on the Russian market by ZAO Mapei) were used to anchor metallic fittings in place on the stairs, to fasten equipment in place outside and to consolidate joints between pre-cast concrete elements. ARB (manufactured and distributed on the Russian market by ZAO Mapei) was used to repair the roads around the hotel.



International Olympic University (RIOU)

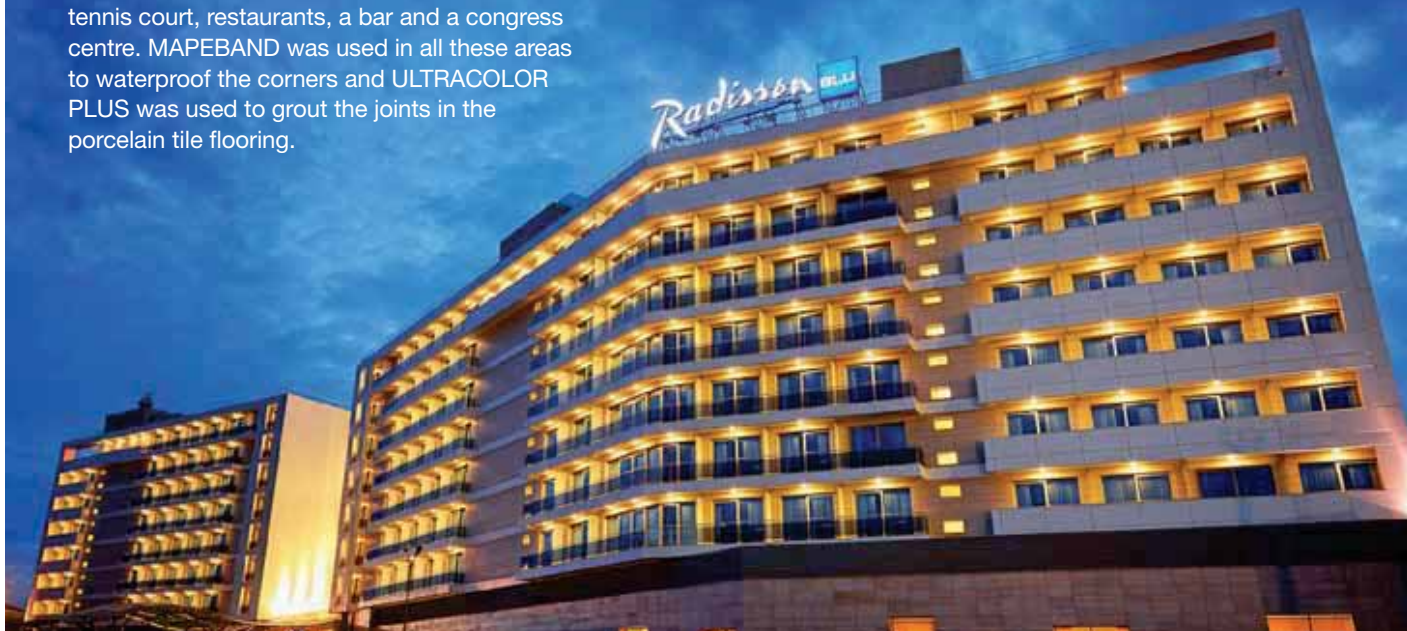
Apart from teaching and study areas, this university campus, which is used to train top level managers of sporting bodies, structures and events, has two hotels from the Mercure4 and Pullman chains. MAPELASTIC was used to waterproof various surfaces in more than 500 rooms in the hotels and in the bathrooms of the areas used for teaching. Textile floor covering was installed using MAPECRYL ECO in the hotel corridors and in some of the sections of the teaching area.






Radisson Blu resort & congress centre

This 5-star hotel and spa has 508 rooms near to the site of the Winter Olympics. It also has indoor and outdoor swimming pools, a gymnasium, a tennis court, restaurants, a bar and a congress centre. MAPEBAND was used in all these areas to waterproof the corners and ULTRACOLOR PLUS was used to grout the joints in the porcelain tile flooring.



Tunnel no. 2, Sochi exit road from the Dzhugba-Sochi motorway



The tunnel is 2 km long and is located at the exit from the motorway. MAPEGROUT THIXOTROPIC was used to seal intersection joints, repair cavities and smooth irregular surfaces, while NIVOPLAN was used to smooth the surfaces inside the tunnel and some of the sections of the tunnel with cable ducts and ducts for other utilities.

Park Inn hotel by Radisson Rosa Khutor

Located in the heart of one of the most famous skiing resorts in Russia, this hotel is the favourite haunt of lovers of winter sports. MAPELASTIC and MAPEBAND were used to waterproof surfaces in the bathrooms and showers in the 211 rooms and suites. KERAPOXY, on the other hand, was used to grout the joints in the porcelain tile flooring in the corridors and lobby.



MAPEI FOR SPORT

Winning together



Minsk Ice Palace, Belarus
Building concrete floorings with Mapecrete System

Mapei is glad to have contributed to build the biggest sports facilities in the world, by supplying cutting-edge products and technologies.

Building concrete flooring with **Mapecrete System** allow to reduce the concrete's natural shrinkage. **Mapecrete System** is the ideal solution for building large, long-lasting concrete surfaces subjected to heavy and continuous traffic.



/mapeispa

Mapei is with you: take a closer look at www.mapei.com





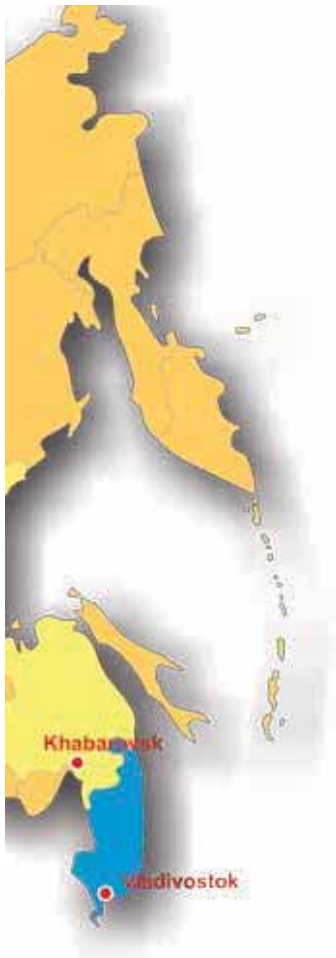
Steadier than ever in Russia

Mapei is strengthening its presence in Russia with a new manufacturing plant, new building works and new projects

On July 30th the second manufacturing plant belonging to ZAO Mapei, the Group's Russian subsidiary, officially opened in Aramil, Russia. This is an important step along the incessant path of growth that the company first set out on in this country over 15 years ago. Mapei OOO, a limited liability company with an office in Moscow, was first established in 1997 to sell the Group's products locally. Manufacturing began in a small factory in Juzhny Port in the city of Moscow in 2002. ZAO Mapei was then founded in 2004, a limited company for manufacturing and marketing Mapei products that opened new offices in a prestigious neighbourhood of Moscow in 2007.

A new manufacturing plant was then opened in Stupino, about 100 km away from the capital, in 2008 to supply the entire Moscow region. This recently extended manufacturing plant now has an output of 100,000 tons of products-a-year: including solutions from





ABOVE. ZAO Mapei has a **manufacturing plant in Stupino**, in the Moscow area, which was recently extended due to the introduction of the wall coatings line.

- **ZAO MAPEI Offices, Plants, Warehouses**
- **ZAO MAPEI Sales people**
- **Distributors**



LEFT. ZAO Mapei has its **headquarters and offices in downtown Moscow**.

ON THE MAP.

Mapei operates all over the Russian Federation through its subsidiary ZAO Mapei.

LEFT. On 30th July Mapei's second manufacturing plant in Russia was officially opened in Aramil. The picture shows the Group's executives and the Mayor of Aramil performing the ribbon-cutting ceremony.

Mapei's line of coating products, recently added to its range of products for installing ceramics and natural stone and for thermal insulation, mortars for repairing concrete, levelling compounds, waterproofers and other building materials.

Mapei's expansion programme in Russia also involved the creation of a distribution network capable of covering every land in the Russian Federal Republic from Kaliningrad on the Baltic Sea to Khabarovsk in the Far East, with over 150 professional building companies involved. ZAO Mapei's sales force has also grown, setting up in key cities like St. Petersburg, Nizhny Novgorod, Kazan, Ekaterinburg, Tyumen, Ufa, Tolyatti, Samara, Rostov-on-Don, Krasnodar, Novosibirsk and also Sochi.

The Group's development programme in Russia also saw the opening of a new manufacturing plant in Aramil in the Ekaterinburg region of the Urals. For good reason: the city

of Ekaterinburg, linked with historical events associated with Czar Nicholas II's family, is now the capital of the second richest region in the nation and one of Russia's main financial-economic centres. ZAO Mapei intends to use this new facility, which manufactures adhesives for installing ceramics and natural stone, solutions for repairing concrete and thermal insulation, levelling compounds and other building materials, to serve its customers in the Urals, Siberia and Kazakhstan, a region of great economic potential.

A big market

The Mapei Group's growth in Russia is explained by the Russian economy, which, over the last decade, has developed steadily, except in 2009. Unemployment and inflation levels, both around 5%, are positive signs for what is still the world's ninth biggest economy. Following the constant and at times even dazzling progress recorded through to 2012,



ABOVE. The Mapei plant in Aramil on the opening day and a view of the warehouse areas.

the Russian building industry slowed down last year, but is still the 12th construction market on the global level. The Russian ceramics market is still the biggest in Europe and 8th biggest in the world and grew by 120% from 2003 to 2013, with a total consumption of almost 192 million m² in 2013. In 2013 the Russian ceramic tiles market recovered from the drop it experienced in 2009, with a growth rate of 1.8% in comparison with 2012. Obviously Mapei intends to exploit this market's potential to the full. As Luciano Longhetti, General Manager of ZAO Mapei and the Group's Manager of Strategic Planning, has stated, "ZAO Mapei's growth strategy is to meet the demands of the market in an extremely vast country that is rapidly expanding on a grand scale, with different requirements and distinctive traits from region to region". And Veronica Squinzi, the Group's Global

Development Director, also pointed out: "We are very proud of being able to double our presence in such a highly strategic market as Russia, reaching and serving a nation of extraordinary potential. Mapei now has a well-established presence in Russia, a market that is continuing to grow and is extremely willing to welcome high-tech and innovative products, even in the building industry, something that will allow construction techniques to be improved and with them the quality of life. The Mapei Group is expanding competitively and is ready to take on new challenges, even in tricky regions like Siberia and the market for the Urals."

So the opening of a new plant in Aramil is an important achievement and will certainly not be the last Mapei plans for Russia. As Giorgio Squinzi, the Group's President, has pointed out: "Our expansion onto the Russian market certainly is not over and will involve extending our manufacturing capacity right across the land".

A celebration day for everybody

Aramil is one of the oldest towns in the Urals. Its name has Turkish roots and, legend has it, comes from the young daughter of a nobleman. Over the last few centuries various industrial operations have been set up in this land, which have boosted the economy of various cities in the Urals region, an important mining area that is currently booming. The Mapei Group actually announced its plans to build a manufacturing site here in 2012, when it opened a distribution centre in Aramil. On one hand this led to the start of the building process and, on the other, to an in-depth study of local materials to assess whether



LEFT. The opening ceremony was attended by (from left) Giorgio Squinzi, President of the Group, Veronica Squinzi, the Group's Global Development Director, Adriana Spazzoli, the Group's Operational Marketing and Communications Director, Valentina Rosi, Deputy General Manager of ZAO Mapei, Yuri Martirosow, Sales Manager of ZAO Mapei and Luigi De Martin, Mapei SpA's Export Manager for Russia.

they comply with European standards. On 30th July 2013 the plant was officially opened in the presence of clients from the region, local authorities, journalists and local workers. The entire executive staff of the Mapei Group was also present: Giorgio Squinzi, President of the Group, Adriana Spazzoli, the Group's Operational Marketing and Communication Director, Veronica Squinzi, the Group's Global Development Director, and Marco Squinzi, the Group's Research & Development Director. Roberto Boselli, the Group's Production Operations Director, and Luigi De Martin, Mapei SpA's Export Manager for Russia, also took part in the opening ceremony.

The opening ceremony was preceded by a press conference attended by representatives of the professional-economic press, the Mapei Group's executives and managers from ZAO Mapei: Luciano Longhetti, Valentina Rosi, Deputy General Manager, and Yuri Martirosow, Sales Manager.

Giorgio Squinzi thanked Aramil's administration authorities for having created favourable conditions for completing the manufacturing plant on schedule. Luciano Longhetti and Veronica Squinzi talked about the Group's strategy for the Russian market.

Yuri Martirosow described the selection guidelines for choosing the location for constructing the plant.

It was then time for welcome speeches by the Mayor of Aramil, Vladimir Leonidovich Gerasimenko, and Giorgio Squinzi, before the ribbon was cut to mark the official opening of the plant.

Guests got the chance to visit the plant and manufacturing areas and to watch the

creation of the first batch of Mapei materials manufactured in the Urals. The "golden bag", a package of high-quality adhesive, was the first product to come off the production line and was signed by all the executives to commemorate the event.

On the same day, representatives from the sales department, who have stood out for their contribution to marketing the Mapei brand and increasing sales in Russia, and members of staff already with ten-year's experience working for ZAO Mapei, were awarded a special little statue with a decorative star by the Group's management team and also received the President's congratulations. They included Yuri Martirosow, who was awarded a prize for his hard work and commitment working for the sales department.



ABOVE. The Group's and ZAO Mapei's executives signed the first bag of Mapei adhesives manufactured in Aramil.

BOTTOM. On the same day, staff from ZAO Mapei were rewarded for their hard work in sales and other departments of the subsidiary. They included Yuri Martirosow, Sales Manager of ZAO Mapei.





From Mordovia to Khakassia

Mapei has been doing business in Russia for a number of years and takes part in the construction of all types of building in every region: from Mordovia to Khakassia and from Moscow to Vladivostok, from aquatic theme parks to foundries and smelting plants.



H2O aquatic theme park, Rostov-on-Don

Various Mapei products were used during the construction of this enormous aquatic theme park: IDROSILEX PRONTO to waterproof the surfaces of brickwork and concrete; KERACRETE+KERACRETE POWDER to install ceramic and mosaics in the swimming pools; ADESILEX P10 +ISOLASTIC to bond mosaics in the Turkish bath; KERALASTIC T to install natural stone in the sauna and Turkish bath; MAPEKLEY EXTRA to install ceramic in the service areas; ULTRACOLOR PLUS to grout joints in the swimming pools, sauna and Turkish bath; MAPEFILL to complete anchoring works in the swimming pools; ELASTOCOLOR WATERPROOF to finish off the tubs in the service areas.





June shopping centre, Mytishi

This shopping centre, with an area of 75,000 m², is one of the largest in the Moscow region. The aim of the centre, designed by the British design studios of Chapman Taylor and Air Design, is to attract 1.5 million clients per month. In order to resist wear from such intense traffic, ceramic flooring installed with reliable products was chosen. In all the corridors, the entrance area and the service areas, large-size porcelain tiles were installed using KERAFLEX. Tile joints were grouted with ULTRACOLOR PLUS.



Sayanogorsk aluminium smelting plant, Republic of Khakassia

This smelting plant, located in the Republic of Khakassia in Siberia, is part of the Rusal Group, world leader in the production of aluminium. The plant employs around 2,400 people and has an annual production capacity of more than 530,000 tonnes of aluminium. To increase the production capacity of anodes, restoration and modernisation work was carried out in 2010 on the oldest of the three furnaces. MAPEFILL was used to repair cracks in the concrete archway at the entrance to the tunnels system for the water.

Hotel Borviha aquatic theme park, Berdsk

This 5-star hotel is surrounded by pine forests and is located on the banks of the River Berd. It has an outdoor swimming pool, a pool for children and an indoor pool. EPORIP was used to seal cracks in the foundations while MAPEFILL 10 (produced and distributed on the Russian market by ZAO Mapei) was used for anchoring works and to consolidate joints. MAPELASTIC and MAPEBAND were used to waterproof the surfaces in the swimming pools. With the KERACRETE system and GRANIRAPID, ceramic tiles were installed in the swimming pools. Tile joints were grouted with ULTRACOLOR PLUS.





Piterland aquatic theme park, Saint Petersburg

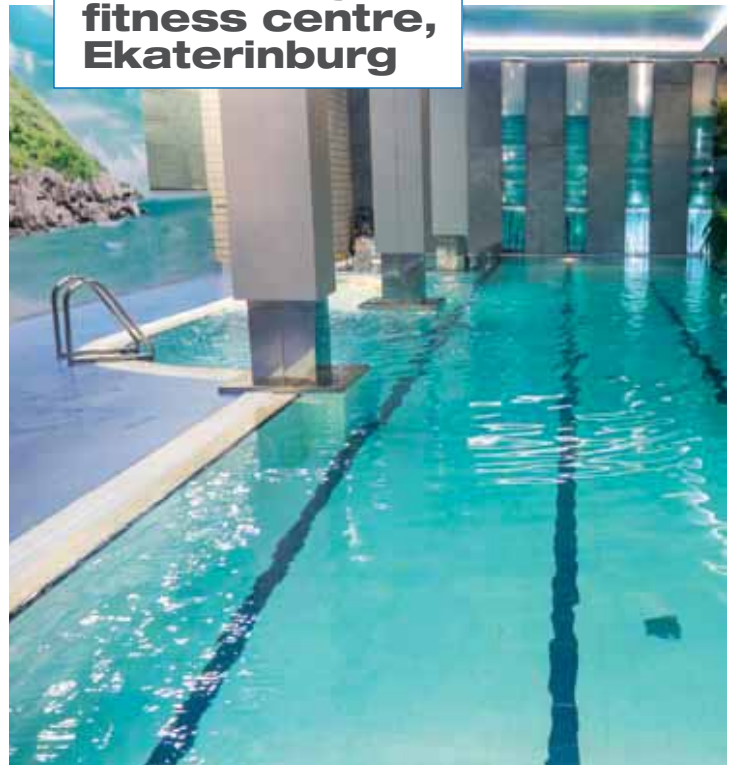
Mapei solutions were used to waterproof and lay more than 7,000 m² of surfaces in this complex, the largest indoor aquatic theme park in Russia. Opened in 2012 and covering an area of 180,000 m², it can host up to 2,000 people and has numerous water attractions, restaurants and shops.

MAPELASTIC was used to waterproof surfaces before installing ceramic tiles with KERABOND T and grouting the joints with KERAPOXY.



This fitness centre covers an area of more than 2000 m² and offers a high level of services to its numerous clients. Various Mapei products were used during the construction of the two swimming pools: MAPEGROUT and EPORIP to seal cracks in the pools; NIVOPLAN PLUS (produced and distributed on the Russian market by ZAO Mapei) +PLANICRETE to level off substrates in the pools; MAPELASTIC reinforced with MAPENET 150 to waterproof the pools; GRANIRAPID to install ceramic tiles; ULTRACOLOR PLUS to grout joints; MAPESIL AC to seal joints.

Ultra family fitness centre, Ekaterinburg



Sarmich dairies, Republic of Mordovia

Sarmich dairies is the first example of the large-scale production of dairy products using innovative methods in Russia. KERAPOXY ADHESIVE, KERAPOXY and KERAFLEX were used to install porcelain flooring in the processing and packaging areas after waterproofing the surfaces with IDROSILEX PRONTO. The expansion joints were then sealed with MAPEFLEX PU21. For the equipment used to gather up liquids, MAPEFILL was used to fill the rigid joints between the concrete surfaces and the trays and EPORIP was used to fasten metallic elements in place to concrete. KERALASTIC T was used to bond porcelain tiles to the columns and walls.



Lexus & Toyota showroom, Rostov-on-Don



Italian ceramic floor tiles were installed with KERAPOXY and KERAFLOOR in the display and service areas of this luxurious showroom. ULTRACOLOR PLUS was used to grout the joints in the ceramic flooring in the reception area and in the area reserved for employees of the showroom. Waterproofing work was carried out in other areas with MAPELASTIC.

Yug Rusi hotel, Rostov-on-Don



In this hotel in the city of Rostov-on-Don, KERALASTIC was used to bond natural stone on external surfaces after waterproofing the substrates with MAPELASTIC and MAPEBAND, while MAPEGROUT THIXOTROPIC was used to repair the concrete surfaces. GRANIRAPID and ADESILEX T SUPER were used to install stone slabs on the internal surfaces and then the joints between the stone were grouted with KERAPOXY, KERAPOXY DESIGN and ULTRACOLOR PLUS. ADESILEX P9 and KERACRETE were used to install porcelain tiles on the internal surfaces.

Tiki-Tak aquatic theme park, Anapa

This enormous aquatic theme park covers more than 3.5 hectares and can host more than 5,000 visitors. It includes a vast car park, various cafes, a restaurant, 7 swimming pools, 14 water slides, a spa area, a scuba diving pool and a wave pool. Mapei supplied products such as PLANICRETE, MAPELASTIC, KERACRETE+KERACRETE POWDER and ULTRACOLOR PLUS to treat substrates, install ceramic tiles and stone slabs and grout joints.







ABOVE. An external view of the showroom.

Rolls Royce showroom in Moscow

The opening of this new showroom required cutting-edge solutions

The luxury car market in Russia is certainly florid, and for a number of years it has no longer been a rare sight to see prestigious brands such as Bentley, Jaguar and Rolls Royce powering through the streets of Moscow. An icon of luxury, wealth and power, the Rolls Royce brand is highly appreciated by the elite of Russia who love its lines and the famous "Spirit of Ecstasy" statuette sitting on its bonnet.

In Moscow, the city with the highest number of billionaires in the world, sales figures for this luxurious automobile have more than doubled. A result that convinced Rolls Royce to open a second showroom, inaugurated last year.

The challenge for perfect service

The new showroom covers an area of 800 m² and is located on the third floor of a commercial building on Volgogradsky Prospekt. The client and contractor chose to install 60x60 cm artificial stone slabs for the floor and wall coverings in the showroom. The material used to make the slabs, made from a mineral-based aggregate with the addition of sand and fragments of stone to give it the appearance of natural stone, offers physical and mechanical characteristics designed specifically to meet the requirements of the showroom. To reduce the load on the floors and walls to a minimum, the manufacturer of the slabs was asked to reduce their thickness from 3 to 2 cm for the wall slabs and from 2 to 1 cm for the floor slabs.

Mapei supplied products and on-site techni-

cal assistance for the preparation of the substrates and the installation of the slabs.

Installation of artificial stone slabs

Work commenced by cleaning the substrate and removing all the areas in poor condition. The cracks were then repaired with EPORIP two-component epoxy adhesive and the areas of concrete in poor condition were repaired with MAPEGROUT HI-FLOW controlled-shrinkage, fibre-reinforced mortar. To form a perfectly flat surface, the substrates were smoothed over with ULTRAPLAN ECO self-levelling, ultra quick-hardening smoothing compound with very low emission level of volatile organic compounds (VOC).

One problem that needed to be overcome was the direct sunlight hitting the glass façade of the building, which would have then led to the generation of considerable thermal stress on the floor and wall coverings, particularly in hot weather. Mapei Technical Services Department recommended that the contractors removed the existing gypsum substrate and replaced it with a new one in cement.

PRIMER G synthetic resin primer (mixed 1:2 with water) was then applied on the cement before installing the slabs to consolidate the surface.

The large, artificial stone slabs were then installed on the floor using GRANIRAPID two-component cementitious adhesive in its white shade. This quick-setting adhesive is ideal for bonding floor coverings on floors subjected to intense traffic.

PROJECTS LAYING CERAMIC TILES

IN THE SPOTLIGHT ELASTORAPID

It is a two-component, high performance, highly-deformable, quick-setting and drying cementitious adhesive with no vertical slip and extended open time for ceramic tiles and stone material. ELASTORAPID can be used for bonding to internal and external walls and floors of all types and sizes of ceramic tiles, natural stone and artificial materials which are slightly sensitive to humidity. It has high bonding strength after only 2-3 hours and, therefore, floor and wall coverings may be put into service very quickly. It can contribute up to **4 points** to obtain the **LEED** certification.



IN THESE PHOTOS. Once prepared, the substrates were smoothed over and skimmed with ULTRAPLAN ECO. The artificial stone slabs were installed on the floor with GRANIRAPID adhesive. Slabs were bonded on the walls with ELASTORAPID. ULTRACOLOR PLUS was used for grouting the joints.



To install the slabs on the walls, on the other hand, the choice went to ELASTORAPID, a two-component, cementitious adhesive with extended open time and no vertical slip.

To grout the joints between the slabs, that had to be at least 5 mm wide, Mapei Technical Services Department recommended the use of ULTRACOLOR PLUS anti-efflorescence, quick-setting and drying polymer-modified mortar, ideal for grouting joints from 2 to 20 mm wide.

The expansion joints were then sealed with 6 mm diameter MAPEFOAM extruded foam polyethylene cord and then lastly with MAPE-SIL LM neutral silicone sealant.

Technical Data

Rolls Royce Motor Cars Showroom,
Moscow, Russian Federation

Year of Intervention: 2012

Intervention by Mapei: supplying products for preparing and repairing concrete substrates, laying artificial stone slabs on floors and walls

Client: Avilon Automotive Group

Laying Company: Sodalit Ltd

Laid Materials: artificial stone

Mapei Co-ordinator: Irina Boldyreva, ZAO Mapei (Russian Federation)

Mapei Products

Preparing and repairing concrete substrates: Eporip, Mapegrout Hi-Flow, Primer G, Ultraplan ECO

Laying stone materials and grouting the joints: Elastorapid, Granirapid, Mapesil LM, Mapefoam, Ultracolor Plus

For further information see the websites www.mapei.com and www.mapei.ru



Bocconi University - Milan, Italy

Granirapid

Two-component high performance fast-setting and hydrating cementitious adhesive for ceramic tiles and stone material.

- Particularly suitable for bonding stone material with fast drying times
- Particularly suitable for rapid re-tiling jobs or flooring that has to be ready for use within very short times (supermarkets, hospital, swimming pools, etc.)
- Suitable for bonding floorings subject to heavy traffic

Mapei is with you: take a closer look at www.mapei.com





Even more **INTERNATIONAL,** even more **INNOVATIVE**

International appeal and an eye on the progress made by the flooring sector: the curtain went down in Hannover (Germany) on the 2014 edition of Domotex with a feeling of optimism, thanks also to the excellent participation of visitors and exhibitors. The most important international trade fair for the textile, resilient and wooden flooring sector attracted around 45,000 visitors from more than 80 different nations and 1350 exhibitors from 57 different countries.

Four days, from the 11th to the 14th of January, focused on quality, innovation and new business prospects. "The vast range of materials, products, colours and formats, combined with eye-catching design, bear witness to the innovative spirit of the international carpet and flooring sector, ready to set the trends for next season" said Jochen Köckler, as the Managing Board at Deutsche Messe responsible for Domotex. Domotex strengthened its image as an interior design and life-style exhibition, thanks also to the side events organised during the trade fair. "Innovations@DOMOTEX" made its debut this year. With interactive spaces, guided visits and round-tables, where architects, designers, manufacturers, distributors and visitors from all corners of the globe could exchange opinions, according to Jochen Köckler "Innovations@DOMOTEX"

proved to be "the true essence of the trade fair", so much so that it also promises to be the heartbeat of future editions. Domotex 2015 will be held in Hannover from the 17th to the 20th of January.



Mapei at Domotex

PRODUCTS AND SYSTEMS

In an innovative and international context such as this one Mapei, with its world leadership in the adhesives and complementary products for the building industry, certainly couldn't miss out. Domotex 2014 was the ideal occasion to present new products and systems for laying textile, resilient and wooden floorings. A wide range of solutions from primers for substrates to levelling compounds, adhesives and grouts for textile, resilient and wooden floors, up to varnishes and finishing products for wooden floors. A range of proposals that offer added value to distributors, floor-layers, designers and construction companies alike. Numerous product demonstrations were held on the Mapei stand. And, to the surprise of many visitors, the display area was enriched even further by the presence of the faces behind the new advertising campaign launched by Mapei GmbH, the German subsidiary of the Group. "The real stars are our clients from Munich that really have gone public by choosing Mapei as their preferred brand", explained Michael Heim, Sales Manager for the resilient and parquet lines of Mapei GmbH. "Four spokesmen, chosen to represent the main categories of our target base: floor-layers, contractors, distributors and architects.", added Heim. This initiative follows precisely Mapei's corporate philosophy, which aims at promoting the importance of people and concrete facts, as well as constant innovation, complete product ranges, specialisation, internationalisation and Research & Development.

ENVIRONMENTAL COMMITMENT

At Domotex 2014, Mapei confirmed its commitment to eco-sustainability. How? By exhibiting display panels dedicated to both major projects and small jobs alike, where the Mapei products used included those certified according to international sustainability standards for their low impact on the environment, or those taking into account the health of workmen and end users. And through the presentation and practical demonstration of new products, many of which carry EMICODE EC1 (very low emission level of volatile organic compounds, VOC) and EMICODE EC1 PLUS (very low emission level of VOC-PLUS) certification awarded by the German body GEV (Gemeinschaft Emissionskontrollierte Verlegewerkstoffe, Klebstoffe und Bauprodukte e.V.), or the DER BLAUE ENGEL mark, a German ecology mark. Mapei products are borne out of the company's qualified commitment into research, the fruit of work carried out by the R&D laboratories that ensure projects that are not only more durable, thus avoiding repeated interventions on structures and infrastructures, but which also help save materials and energy.

CERTIFIED PROJECTS

Mapei solutions allow innovative, certified projects to be delivered and help them obtaining precious award points for prestigious certifications: LEED, "The Leadership in Energy and Environmental Design", developed by the US Green Building Council (for North America and parts of Europe); GREEN STAR in compliance with the Green Building Council of Australia; GREEN MARK promoted by the Building and Construction Authority of Singapore and BREEAM "BRE Environmental Assessment Method" for Great Britain, Germany and Scandinavia.



ABOVE. Numerous product demonstrations were held at the Mapei stand.



ABOVE. Numerous product demonstrations were held at the Mapei stand.



BELOW. Mapei products have been certified according international eco-sustainability standards and are respectful of the floor-layers' and end-users' health.



Eco Prim Grip

Multi-purpose, ready-to-use acrylic resin and inert silica based bonding promoter and primer, with extremely low emission level of volatile organic compounds (VOC).

Discover the world of Mapei: www.mapei.com

- Ready for use, quick and easy to apply by roller or flat brush
- Multi-purpose product: excellent bonding promoter for render applied on concrete and masonry substrates and for smoothing and levelling compounds and adhesives for ceramics applied on old internal ceramic and stone floors
- Completely harmless for floor layers: certified EMICODE EC1 by GEV, practically zero emission of volatile organic compounds



Our environmental commitment
More than 150 Mapei products help project designers and contractors building innovative projects, which are LEED (Leadership in Energy and Environmental Design) certified by the U.S. Green Building Council



/mapeispa



TRADE FAIRS

**DOMOTEX
2014**



Preparing **THE SUBSTRATES**

To guarantee correct, sound installation the substrate must be prepared adequately and primed. Priming the surface has three functions: to even out the absorbency of the substrate, making applying levelling products easier; to improve adhesion to the substrate (even in the case of difficult substrates); to anchor any residual dust on the substrate. At Domotex 2014 Mapei presented two new primers in water dispersions, with very low emission level of volatile organic compounds, which are also EMICODE EC 1 and DER BLAUE ENGEL certified: ECO PRIM T PLUS and ECO PRIM VG, especially developed for the German market.

NEW

ECO PRIM T PLUS is a new, multi-purpose primer that is practically odourless. It can be applied diluted with water on absorbent cementitious, bituminous and anhydrite-based substrates or undiluted on non-absorbing surfaces such as ceramic coverings. It is also particularly suitable for applications before levelling and for use as an adhesion promoter for Mapei consolidating and waterproofing products such as ECO PRIM PU 1K TURBO or PRIMER MF EC PLUS.

NEW

ECO PRIM VG has many of the same characteristics as ECO PRIM T PLUS. It is supplied ready-to-use and may be applied on almost any type of absorbent substrate

used in the building industry, such as cementitious and anhydrite-based surfaces. With a drying time of around 2-3 hours, depending on the absorbency of the substrate, ECO PRIM VG allows work at building site to be carried out quickly.

LEVELLING THE SUBSTRATES

There is one **new product** among the Mapei levelling compounds: **PLANITEX D5**, distributed on the German market. PLANITEX D5 features low emission level of VOC. This product is EMICODE EC1 R Plus-certified and is particularly suitable for levelling and smoothing calcium sulphate substrates and ready-mixed gypsum screeds, especially in the case of large surface areas.



TRADE FAIRS

DOMOTEX 2014



THE EXPERT'S OPINION



Angelo Nobili
Mapei Group's Resilient Line
Product Manager

Laying RESILIENT and TEXTILE FLOOR and WALL COVERINGS

In the design flooring sector there is an increase in demand for LVT (Luxury Vinyl Tiles), which opens new horizons in creativity applied to floor design. To meet these new trends, at Domotex 2014 Mapei presented four new products for bonding LVT surfaces, 'classic' textile and linoleum floorings: ULTRABOND ECO V4 LVT, ULTRABOND ECO TACK LVT, ULTRABOND ECO 140 T (only available on the German market) and ULTRABOND ECO 530. Beside, Mapei also presented ULTRABOND ECO CONTACT, a new, solvent-free contact adhesive in water dispersion for bonding steps, skirting, fillets and corner pieces in internal environments.

Given that the resilient floor and wall covering markets have contracted because of the overall general trend in the building sector, which categories of products are holding up?

In spite of the overall drop, with different rates in Europe between different countries, there is a category of products that is growing and that should continue to grow in future years: the family of PVC LVT, Luxury Vinyl Tiles.

Domotex is an international trade fair: what was the target of the visitors and from which countries?

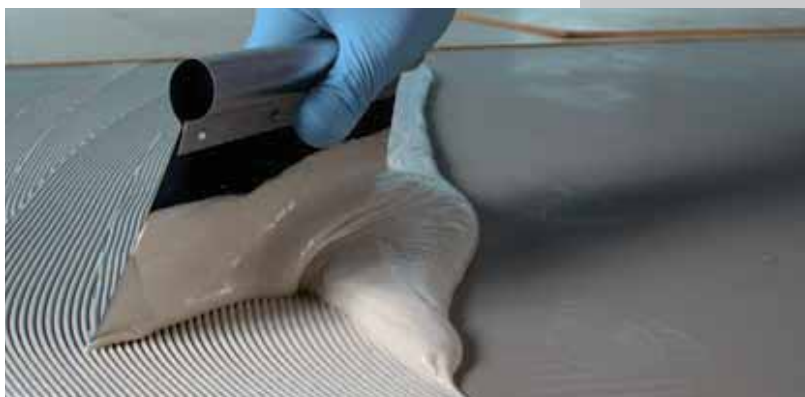
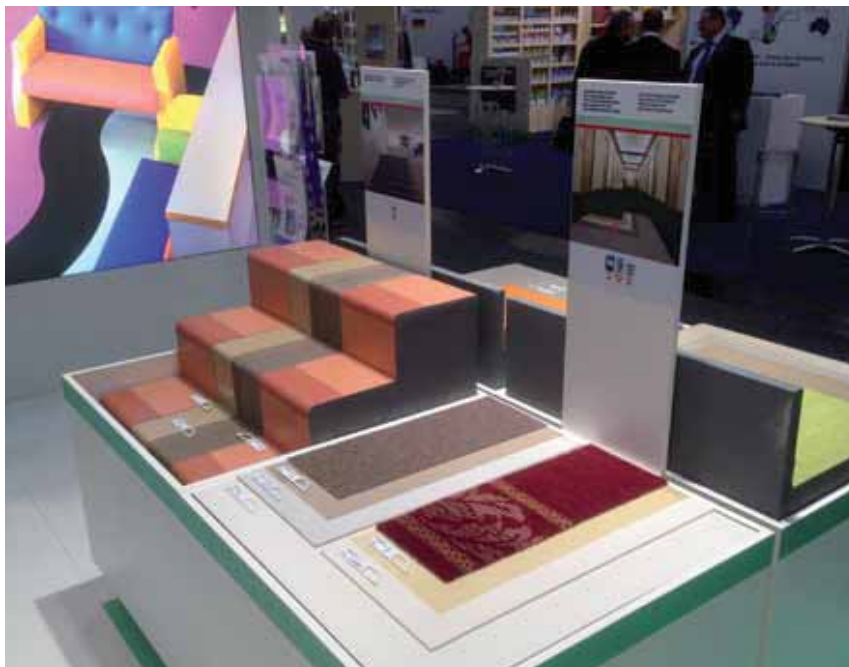
As far as we are concerned we have noticed more foreign visitors from the United Arab Emirates, Turkey and Russia, as well as obviously from Germany since they are on their home turf. The reference public were the designers, architects and distributors from the countries I mentioned, which are our potential clients.

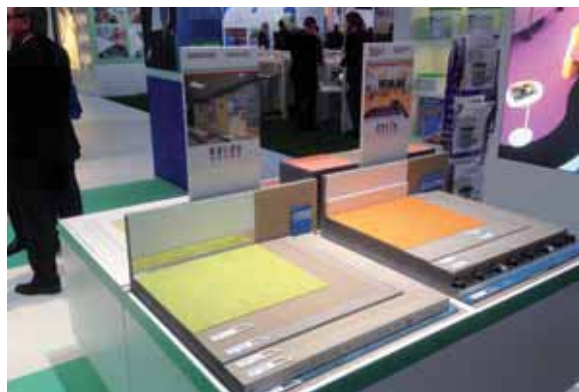
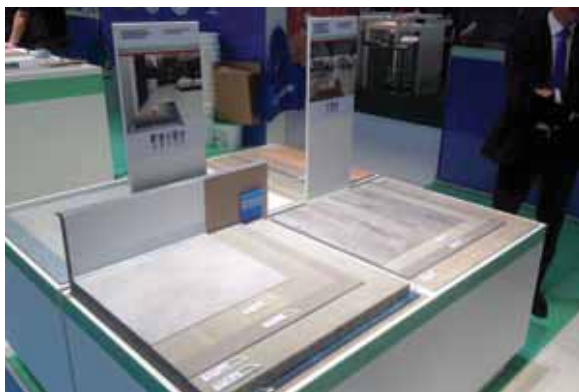
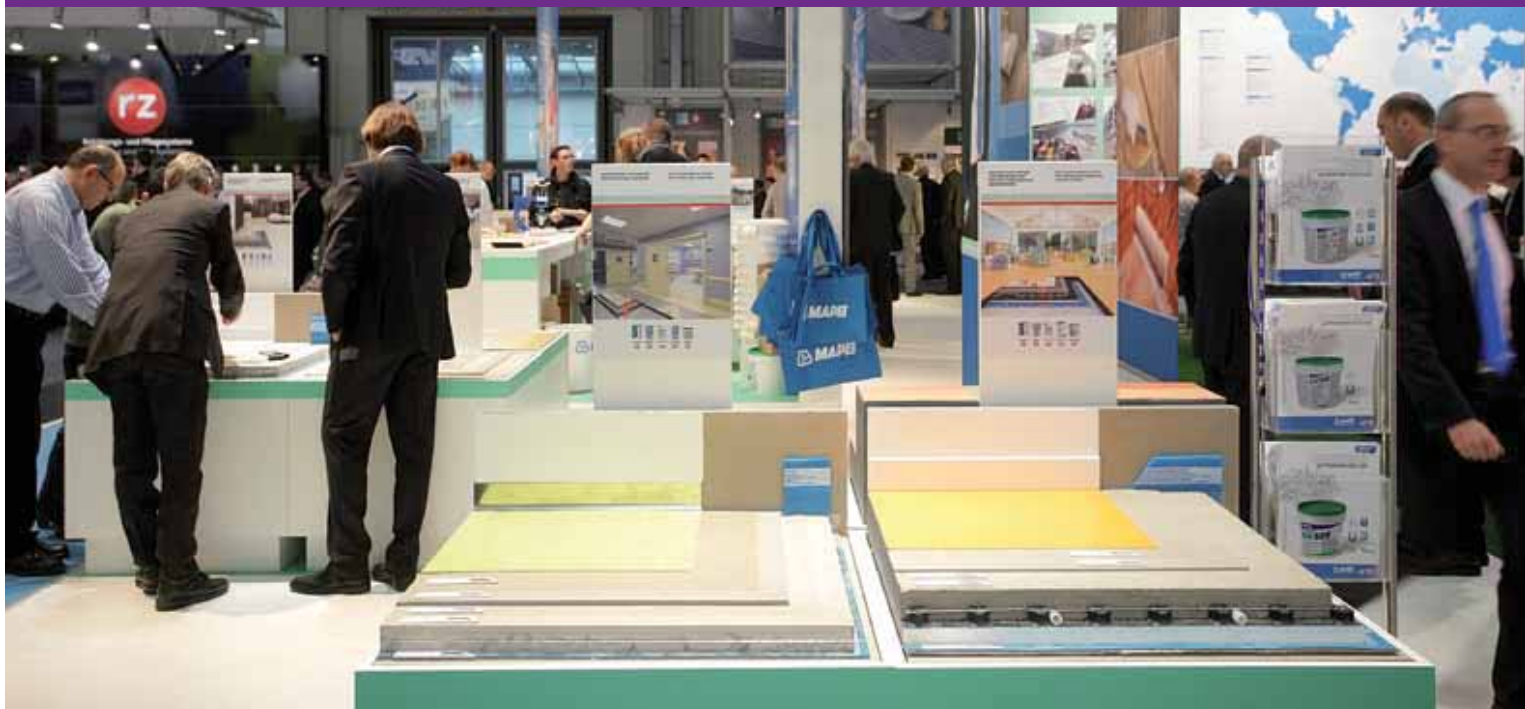
What was new in the resilient and textiles sector?

Generally speaking, Domotex 2014 was the occasion to present different categories of adhesives. From contact adhesives to water-based adhesives, to double-sided adhesive strips in various sizes and with different adhesion properties along the two sides and acrylic adhesives for PVC LVT.

How is Mapei, with its products and systems, meeting the new requirements of the market?

Mapei satisfies both the old and new requirements of the market with the usual determination, thanks to our constant investment into Research & Development. The company has introduced systems to the market targeted at the new family of PVC LVT in particular, without forgetting other products for resilient materials. We have introduced two new low-smell primers, something the German market has been asking for, but these will certainly be of interest to other European countries: ECO PRIM T PLUS and ECO PRIM VG. Also, most of our systems are now certified DER BLAUE ENGEL, EMICODE EC1 and EMICODE EC1 PLUS.





NEW

ULTRABOND ECO 4 LVT is an innovative adhesive specifically formulated for installing all types of LVT flooring tiles and planks. Not only does this product guarantee a rapid development of its initial adhesion strength, but thanks to the use of innovative microfibre-based technology, it also improves dimensional stability. It is particularly suitable for use in residential, commercial and industrial surroundings subjected to intense traffic; it has excellent workability and has been awarded EMICODE EC1 Plus and DER BLAUE ENGEL certifications.

NEW

ULTRABOND ECO TACK LVT is a new adhesive in water dispersion for the installation of self-laying LVT flooring tiles and planks. Thanks to its high adhesion, it reduces the risk of unsightly gaps forming in joints between tiles and planks. Flooring is ready for foot traffic immediately after installation.

NEW

ULTRABOND ECO 140 T is an adhesive in water dispersion for textile flooring. This product, with very low emission level of VOC (certified EMICODE EC1 Plus), may be used in internal environments on all types of absorbent substrates resistant to moisture. It features a high level of trowelability ideal for quick, effortless installation.

ULTRABOND ECO 140 T allows flooring to be put into service more quickly (after 24 hours) compared with traditional adhesives, while its open time (20-30 minutes) guarantees perfect buttering and secure adhesion of the flooring.

NEW

ULTRABOND ECO 530 is an adhesive for linoleum sheets and tiles up to 4 mm thick and linoleum with cork backing. It is characterised by its high, rapid tack and guarantees high dimensional stability for flooring. This new EMICODE EC1 Plus-certified product may be used to install linoleum in both residential environments and in areas subjected to high volumes of traffic, such as shopping centres, airports, offices and schools.

NEW

ULTRABOND ECO CONTACT is a solvent-free contact adhesive in water dispersion, used to bond steps, skirting, fillets and corner pieces made from PVC, textile, linoleum, rubber and cork materials in internal environments. Thanks to its very low emission level of VOC (certified EMICODE EC1 Plus), it is particularly suitable for use in closed environments with high volumes of traffic, such as hospitals, offices and residential areas. It stands out for its high adhesion and high initial tack.



LAYING, FINISHING and PROTECTING WOODEN FLOORS

Wood is the natural material par excellence, widely used in areas with various final uses: both commercial and residential, including where there is intense traffic. Mapei offers a complete line of products for preparing substrates and laying and finishing off wooden floors. To guarantee the natural beauty of wood, the company proposed at Domotex 2014 products and systems from the ULTRACOAT line. Basecoats, varnishes, oils, waxes, binders and products for substrates that guarantee eco-sustainability and care for wooden floors, including those subjected to wear, dirt, and pedestrian traffic. And for the adhesives sector? Highlighted by Mapei at the trade fair were the adhesives from the ULTRABOND line. Solvent-free, silitated polymer-based products with excellent workability, suitable for all types of wooden floors.

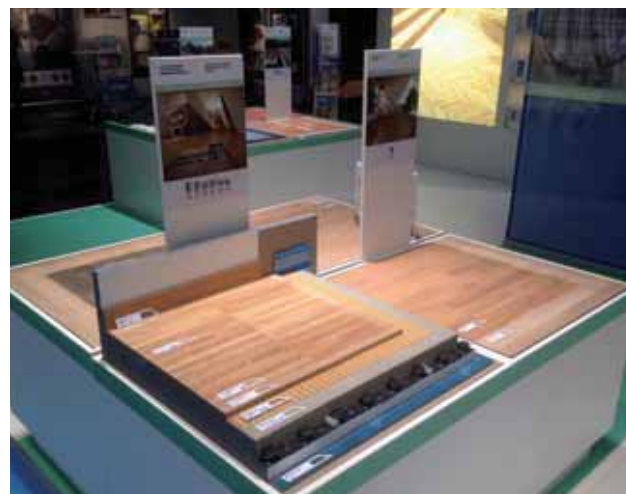


ADHESIVES

ULTRABOND ECO S945 1K is a ready-to-use, one-component adhesive, made from silitated polymers and ideal for bonding all sizes of pre-finished wooden floors and medium-size solid wooden floors on any kind of substrate. It features low emission level of VOC and is certified EMICODE EC1 R PLUS.

ULTRABOND ECO S955 1K is a solvent-free, polymer-based silitated adhesive. It features low emission level of VOC (certified EMICODE EC1 R PLUS) and is suitable for any type and sizes of wooden floor and pre-finished materials.

ULTRABOND S965 1K is a one-component, isocyanate and solvent-free, silitated polymer adhesive with very low emission level of volatile organic compounds, with extended open time, for all types and sizes of parquet. It is certified EMICODE EC1 R PLUS.



BASECOATS AND BINDERS

ULTRACOAT AQUA PLUS and **ULTRACOAT BINDER** are binders used in combination with oils and finishing products from the ULTRACOAT line. Mixed with wood flour, both products are easy to use when grouting wooden floors to create surfaces with a natural look.

ULTRACOAT PREMIUM BASE and **ULTRACOAT TONING BASE** are two-component, water-based basecoats with high isolating capacity for water-based finishing circles. They feature low emission level of VOC and are NMP (N-Methylpyrrolidone)-free. They have been developed to enhance the color of wood without creating undesired color variations.

ULTRACOAT SOFT TOUCH BASE is a water-based, rapid-drying, one-component basecoat. It is characterised by its high isolating capacity, low emission level of VOC, excellent defect-hiding properties, easy buffing, ease of application and short drying time. Used in combination with ULTRACOAT SOFT TOUCH FINISH two-component varnish allows you to create surfaces with a natural wood effect that is particularly soft to the touch.

ULTRACOAT UNIVERSAL BASE is an one-component water-based basecoat characterised by its excellent defect-hiding properties, ultra-rapid drying, easy buffing and ease of application, reducing problems caused by overlaps. It is ideal for preparing solid and pre-sanded wooden floors and floors requiring repair. It features low emission level of VOC and is NMP-free.



THE EXPERT'S OPINION

Angelo Giangiulio,
Mapei Group's Wooden Floors
Line Product Manager

The Mapei products and systems used to install and care for wooden flooring have been tried and tested on millions of square metres and are certified according to the most modern standards in terms of industrial processes and safety during use. What sort of impact do they have on the market?

It is practically impossible to sell products on any of the Northern European markets if they are not certified by, for example, EMICODE EC1 by GEV and DER BLAUE ENGEL, so as a result we must have our products certified by internationally recognized laboratories. And if Mapei didn't manufacture their products according to modern standards it would be impossible to be awarded this type of certification. Also, let's not forget how much Mapei invests in Research & Development, the starting point if you want to propose safe, innovative products.

According to figures released in 2013 by FEP,

the European Parquet Federation, the total production of wooden flooring in Europe had reached more than 75 million m² in 2012. Do you think there are good growth prospects for wood?

Wooden floor has all the potential for growth. We just have to consider that, in the whole world, the portion of the market for wooden flooring represents only 6-7% of investments into flooring.

Are trade fairs still a useful tool to strengthen the bond with distributors and contractors?

Personally I believe they are, especially if we consider that, for me, it is difficult to meet with all our European clients during the year. Trade fairs are an excellent occasion to strengthen the bonds and partnerships with manufacturers of wooden flooring and represent an important opportunity to meet many of our clients.

What was new in the wooden flooring sector?

For this edition of Domotex we presented something brand new: ULTRACOAT OIL WAX, a highly protective, water and oil-repellent oil/wax finish with very little odour. What is more, the trade fair was also the occasion to launch products on the German market such

FINISHING WITH VARNISHES

ULTRACOAT SOFT TOUCH FINISH is a two-component, water-based, 100% polyurethane varnish with no NMP and low emission level of volatile organic compounds. It ensures a natural, soft finish for protecting wooden floors in residential and commercial environments.

ULTRACOAT EASY PLUS is an one-component varnish with very low emission level of volatile organic compounds (certified EMICODE EC1), used in civil and commercial environments to bring out the natural colour of wood and exalt its intensity.

ULTRACOAT HIGH TRAFFIC is a two-component, water-based, 100% polyurethane varnish with very low emission level of volatile organic compounds (certified EMICODE EC1), ideal for solid and pre-sanded wooden floors and wooden floors requiring repair. It features high resistance to wear and abrasion and is suitable for wooden flooring with extremely high volumes of pedestrian traffic in civil and commercial areas.

ULTRACOAT EL is a mixture used to increase the open time of ULTRACOAT varnishes for wooden flooring to improve their workability. It is especially recommended in hot weather or when more time is required to apply the varnish.

as ULTRACOAT OIL COLOR and ULTRACOAT OIL PLUS: a range of coloured oils that can be painted over with our two-component, water-based varnishes. And we mustn't forget either that, in the last few years, Mapei has become increasingly well known as an innovative company in the field of adhesives for wooden floors. A recent development is the silylated polymer-based adhesives which, thanks to their special characteristics, offer solutions for all building site requirements. These are the adhesives from the ULTRABOND line: ULTRABOND ECO S945 1K, ULTRABOND ECO S955 1K and ULTRABOND S965 1K, solvent-free, one-component adhesives, certified EMICODE EC1 R PLUS, with very low emission level of VOC.

Do these products require special techniques when they are used?

Absolutely not. These products are easy to apply for professional floor-layers. When we insert a new product into our lines there are three characteristics they must all have: no risk to the health of those who use them, respect for the environment and easy to use. In so doing, floor-layers will carry out work perfectly according to specification, quickly and in complete safety.

FINISHING WITH OILS

The real novelty in the ULTRACOAT line presented at Domotex 2014 was **ULTRACOAT OIL WAX** a highly protective, water and oil-repellent oil/wax finish with very little odour. It gives the surfaces a delicate, warm color so that wood maintains its natural beauty for many years.

ULTRACOAT OIL is a solvent-free, natural drying oil-based resin for treating all types of wooden flooring. It leaves the floor with a warm, rustic effect and also brings out the natural beauty of the veins in the wood.

ULTRACOAT OIL PLUS is a low-odour, urethane impregnating oil for treating wooden floors. Thanks to its compatibility with ULTRACOAT finishing products, it gives the surface a highly-protective, long-lasting finish.

ULTRACOAT OIL COLOR is a low-odour, urethane oil finish used for impregnating and colouring wood. Thanks to its special formulation, it gives the surface a highly-protective, long-lasting coloured finish and is available in white, black, walnut-American, walnut, mahogany and cherry red.

ULTRACOAT OIL CARE is a solvent-free, natural drying resin oil in water dispersion for finishing wooden floors treated with oil. Used in routine maintenance operations, it helps maintain the original beauty of wooden floors.



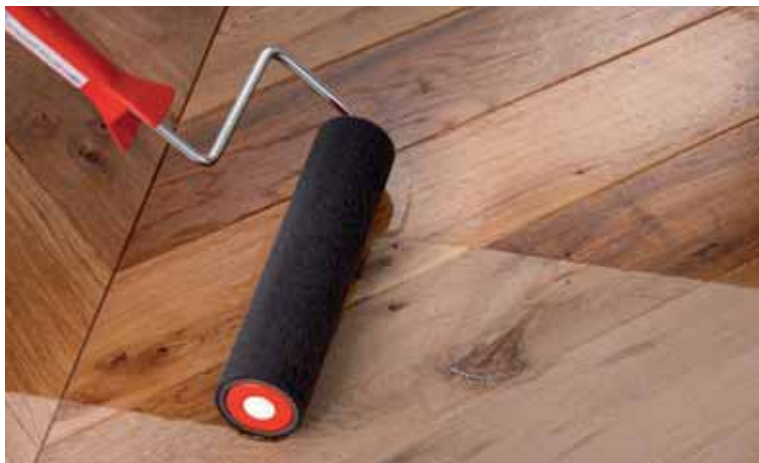
CLEANING AND MAINTAINING WOODEN FLOORS

ULTRACOAT CLEAN POLISH is a special product, supplied ready-to-use which may be diluted according to requirements. It has been developed specifically for routine maintenance work on wooden floors in residential and commercial environments, treated with water-based varnishes from the ULTRACOAT range.

ULTRACOAT CLEAN WPM is a product used for the maintenance and protection of wooden flooring with water-based varnish with an opaque or extra-opaque finish. It increases the level of protection of floors against wear, covers light, surface scratches and leaves surfaces with a new, shiny finish.

ULTRACOAT UNIVERSAL CLEANER is a concentrated detergent developed for cleaning wooden flooring treated with varnish or oil. It is also suitable for routine cleaning operations and for very dirty floors.

ULTRACOAT POLISH REMOVER is a concentrated de-waxing solution developed specifically for removing ULTRACOAT CLEAN POLISH/ULTRACOAT CLEAN WPM from finished wooden floors. It may also be used to remove small surface defects from floors finished with water-based varnishes of the ULTRACOAT line.



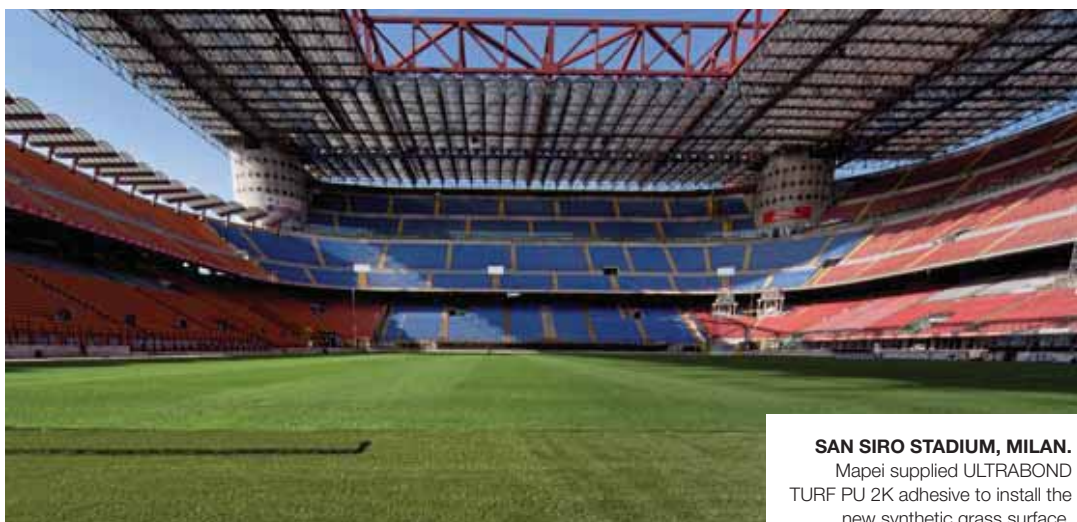
TRADE FAIRS

**DOMOTEX
2014**



For **SPORTS FACILITIES**

Mapei proposes cutting-edge products for sports facilities built for any sport and for the most prestigious national and international sporting events. In 2012, for example, the company took part in the installation of athletics tracks in the Olympic Stadium used for the London Olympic Games by supplying the high-performance adhesive ADESILEX G19. In 2013, Mapei also took part in re-building work carried out on the Dalmine Velodrome in Bergamo (Italy): an historical racetrack which, since 1926, has hosted events for both the Italian and European Cycling Championships. For this building site the company supplied MAPECOAT TNS URBAN, a coating system for cycle and pedestrian tracks and urban features which is part of the MAPECOAT TNS SYSTEM line for resin playing surfaces. MAPECOAT TNS SYSTEM also includes: MAPECOAT TNS PROFESSIONAL for tennis courts and MAPECOAT TNS MULTISPORT COMFORT for multi-purpose playing surfaces.



SAN SIRO STADIUM, MILAN.

Mapei supplied ULTRABOND TURF PU 2K adhesive to install the new synthetic grass surface.



MAPECOAT TNS PROFESSIONAL is a multi-layered acrylic resin system in water dispersion with selected fillers used to create playing surfaces suitable for professional level tennis with high resistance to wear, UV rays and various weather conditions. It may be applied on existing pre-painted surfaces or on new cementitious or asphalt flooring which requires final coating.

MAPECOAT TNS MULTISPORT COMFORT is a multi-layered acrylic resin system in water dispersion with selected fillers, applied in combination with granular rubbing matting, used to create multi-purpose playing surfaces with high resistance to wear, UV rays and various weather conditions. It may be applied on existing, pre-painted surfaces or on new cementitious or asphalt flooring which requires final coating and allows elastic surfaces to be formed with excellent playing comfort and excellent performance characteristics.

MAPECOAT TNS URBAN is an acrylic resin-based coloured coating in water dispersion with selected fillers, for coating cycle tracks, footpaths and urban features. It pro-

TECTS substrates (in asphalt or cement) against deterioration, and leaves a finish which is also non-slip and resistant to contact with oil and fuel.

ADESILEX G19 is a two-component epoxy-polyurethane adhesive for rubber, PVC and linoleum flooring. It is an extremely strong and flexible all-purpose adhesive especially recommended for non-absorbent or moisture-sensitive surfaces. After hardening it becomes flexible, resistant to moisture, water, heat and atmospheric agents, with high bonding characteristics on almost all materials commonly used in construction.



Mapei and GEV: the reasons for a choice

The EMICODE certification guarantees low emission level of volatile organic compounds in building products

Eco-sustainability is today an ever more recurring theme, since we spend most of our time indoor. The indoor air quality can be influenced by a lot of factors, such as human behavior and ventilation, but also furniture and building materials.

Everything used in our houses and offices can emit volatile organic compounds (VOC). It's very important to test and control the VOC emissions. Mapei formulates "green" products, with very low emission level of VOC, guaranteeing high air quality and protecting the health of both floor-layers and final users.

In the 1970s Mapei introduced on the market a line of water-based adhesives, with very small quantity of solvents. Research projects have been developed to formulate new products with very low VOC emissions and no solvent, in order to improve the air quality in the buildings where they are applied. The ECO line was born.

What is the EMICODE mark?

Since October 2005, Mapei products have been certified and labelled EMICODE EC1 (very low emission level of volatile organic compounds) and since June 2010 they have been certified EMI-

CODE EC1 PLUS (very low emission level of volatile organic compounds-PLUS), both issued by the German Institute GEV (Gemeinschaft Emissionskontrollierte Verlegewerkstoffe, Klebstoffe und Bauprodukte e.V.), association for the control of emissions in products for flooring installation, adhesives and building materials, of which Mapei is a member.

MAPEI chooses EMICODE, a German voluntary label, known at a global level for its excellence in the evaluation of VOC emissions from building products. In order to obtain the EMICODE certification, a product must be solvent-free, not be labelled as toxic, and have a complete Safety Data Sheet. Its emission of carcinogenic compounds and volatile organic compounds must also be carefully evaluated. The products tested include liquids (primers), powders (self-levelling products, mortars, and cementitious grouts), pastes (adhesives for resilient flooring, wooden floorings, and epoxy grouts), sealants and varnishes for wooden floorings.

How is the product tested?

According to the GEV test method, the product is applied on a non-adsorbent glass plate with a known surface area,

is weighed and then immediately transferred into an environmental chamber. The ratio between the area of the sample and the volume of the chamber is very important, since it reproduces the real situation in an apartment (floor/room volume ratio). Temperature and relative humidity in the chambers are tightly controlled (T=23°C and R.H.=50%), and the test chambers are ventilated continuously with clean air at a flow rate such that the air in the chamber is completely replaced every 2 hours. After 3 days and 28 days, air in the chamber is sampled by pumps onto tubes which can retain all the VOC. The tubes are then analyzed by gas chromatograph (GC/MS) in order to obtain a qualitative-quantitative analysis in $\mu\text{g}/\text{m}^3$ of all the VOC present in the air.

How can the product be classified?

During the environmental chamber test, the emissions of volatile organic compounds are measured after 3 days and 28 days: this parameter is called TVOC (Total Volatile Organic Compounds). It is expressed in $\mu\text{g}/\text{m}^3$ and is the sum of the concentrations of all the detected volatile compounds.

After 3 days, the level of carcinogenic compounds must also be measured, such as benzene (limit=2 $\mu\text{g}/\text{m}^3$), formal-

	$\mu\text{g}/\text{m}^3$ after 3 days TVOC	$\mu\text{g}/\text{m}^3$ after 28 days TVOC / TSVOC
EC 1 PLUS	750	60 / 40
EC 1	1000	100 / 50
EC 2	3000	300 / 100

TABLE 1. The table shows the VOC emissions limits set by GEV for the EMICODE certification.



MAPEI PRODUCTS WITH EMICODE CERTIFICATION

dehyde (limit=50 µg/m³) and any residual monomer.

After 28 days the level of semi-volatile compounds is also measured, and all the concentrations are summed: this parameter is called TSVO (Total Semi-Volatile Organic Compounds). The semi-volatile compounds are all those substances with high boiling point, which remain in the environment for a long time and hardly decrease. Even though almost all these substances are neither toxic nor harmful to a person's health, they can influence indoor air quality for a very long time.

Table no. 1 shows limits set by GEV for the EMICODE classification

Why MAPEI chooses GEV?

Mapei choose GEV because its method ensures:

- SEVERE LIMITS

An EC1 Plus product needs to achieve strictly set emission levels 3 days after the application of the product in the chambers, and after 28 days only a few traces of VOC are allowed! Carcinogenic compounds must also be almost absent in the emissions.

- IMPARTIALITY

GEV is an independent association guaranteeing an impartial assessment of the products' emissions.

- INTERNATIONAL REPUTATION

GEV is an internationally recognized association.

- QUALITY

EC1 and EC1 PLUS are quality labels for green materials.

- CONTROL

EMICODE-certified products available on the market are regularly tested by GEV.

For further info please visit

www.emicode.com

ADEFLEX GREEN S1	EC 1 PLUS-R	PRIMER MF EC PLUS	EC 1 PLUS
ADESILEX LC/R	EC1PLUS	PRIMER VT PLUS	EC 1 PLUS
ADESILEX P10	EC1PLUS	SILWOOD	EC 1
ADESILEX P4	EC 1 PLUS-R	TIXOBOND GREY	EC 1-R
ADESILEX P7	EC 1 PLUS-R	TIXOBOND WHITE	EC 1-R
ADESILEX P9	EC 1 PLUS-R	TOPCEM PRONTO	EC 1 PLUS-R
ADESILEX P9 EXPRESS	EC 1-R	TOPCEM PRONTO C60	EC 1 PLUS-R
ADESILEX P9 PLUS	EC 1 PLUS-R	ULTRABOND AQUA CONTACT CORK	EC 1
ADESILEX UP 71	EC 1 PLUS	ULTRABOND ECO CONTACT	EC1 PLUS
ECO PRIM GRIP	EC 1 PLUS	ULTRABOND ECO 140 T	EC 1 PLUS
ECO PRIM PU 1K	EC 1-R	ULTRABOND ECO 170	EC 1 PLUS
ECO PRIM PU 1K TURBO	EC 1 PLUS	ULTRABOND ECO 185	EC 1
ECO PRIM T PLUS	EC 1 PLUS	ULTRABOND ECO 375	EC 1 PLUS
FIBERPLAN	EC 1 PLUS	ULTRABOND ECO 4 LVT	EC 1 PLUS
GRANIRAPID	EC 1 PLUS	ULTRABOND ECO 520	EC 1 PLUS
KERABOND	EC 1 PLUS-R	ULTRABOND ECO 530	EC 1 PLUS
KERABOND T	EC 1 PLUS-R	ULTRABOND ECO 540	EC 1
KERABOND T-R	EC 1 PLUS-R	ULTRABOND ECO 571 2K	EC 1 PLUS-R
KERACOLOR FF 100	EC 1 PLUS-R	ULTRABOND ECO 575	EC 1 PLUS
KERACOLOR FL-S	EC 1 PLUS	ULTRABOND ECO FIX	EC 1
KERACOLOR GG	EC 1 PLUS-R	ULTRABOND ECO P909 2K	EC 1 PLUS-R
KERACOLOR SF	EC 1 PLUS-R	ULTRABOND ECO P971 2K	EC 1-R
KERACRETE + KERACRETE LATEX	EC 1 PLUS-R	ULTRABOND ECO P991 1K	EC 1
KERAFLEX	EC 1 PLUS-R	ULTRABOND ECO P992 1K	EC 1
KERAFLEX EASY	EC 1 PLUS-R	ULTRABOND ECO S945 1K	EC 1-RPLUS
KERAFLEX EXTRA S1	EC 1 PLUS-R	ULTRABOND ECO S955 1K	EC 1 PLUS-R
KERAFLEX LIGHT S1	EC 1 PLUS-R	ULTRABOND ECO TACK	EC 1
KERAFLOOR	EC 1 PLUS-R	ULTRABOND ECO TACK LVT	EC 1 PLUS
KERAPOXY	EC 1 PLUS-R	ULTRABOND ECO V4 SP	EC 1 PLUS
KERAPOXY CQ	EC 1 PLUS-R	ULTRABOND ECO V4 SP	
KERAPOXY DESIGN	EC 1 PLUS-R	CONDUCTIVE	EC 1 PLUS
KERAPOXY IEG	EC 1 PLUS-R	ULTRABOND ECO V4 SP FIBER	EC 1 PLUS
KERAQUICK	EC 1 PLUS-R	ULTRABOND ECO VS 90	EC 1
KERAQUICK D	EC 1 PLUS	ULTRABOND MS RAPID	EC 1 PLUS-R
KERASET	EC 1 PLUS-R	ULTRABOND P980 1K	EC 1 PLUS-R
KERASET MAXI EXPRESS	EC 1-R	ULTRABOND P990 1K	EC 1 PLUS-R
MAPE-ANTIQUE CC	EC 1 PLUS-R	ULTRABOND P997 1K	EC 1 PLUS-R
MAPE-ANTIQUE FC CIVILE (WHITE)	EC 1 PLUS-R	ULTRABOND SUPER GRIP	EC 1 PLUS
MAPE-ANTIQUE FC CIVILE (LIGHT PINK)	EC 1 PLUS-R	ULTRABOND TURF 2 STARS	EC 1 PLUS-R
MAPE-ANTIQUE FC GROSSO	EC 1-R	ULTRABOND TURF PU 1K	EC 1-R
MAPE-ANTIQUE FC ULTRAFINE	EC 1 PLUS-R	ULTRABOND TURF PU 2K	EC 1 PLUS-R
MAPE-ANTIQUE INTONACO NHL	EC 1 PLUS-R	ULTRABOND TURF PU 2K RAPID	EC 1 PLUS-R
MAPE-ANTIQUE MC	EC 1 PLUS-R	ULTRACOAT EASY PLUS	EC 1
MAPE-ANTIQUE MC MACCHINA	EC 1 PLUS-R	ULTRACOAT HIGH TRAFFIC	EC 1-R
MAPECRYL ECO	EC 1	ULTRACOAT P 915 O S	EC 1
MAPEFLEX MS 45	EC 1 PLUS-R	ULTRACOAT P 915 T	EC 1
MAPEFLEX PU40	EC 1-R	ULTRACOAT P 920 2K	EC 1-R
MAPEFLEX PU45	EC 1-R	ULTRACOAT SUPER TOUCH BASE	EC 1
MAPEGUM WPS	EC1PLUS	ULTRACOAT SOFT TOUCH FINISH	EC 1
MAPESET	EC 1-R	ULTRACOLOR PLUS	EC 1-R
MAPESONIC CR	EC 1 PLUS	ULTRALITE S1	EC 1 PLUS-R
MAPESTONE 1	EC 1 PLUS	ULTRAPLAN	EC 1 PLUS
MAPEWRAP AQ ADHESIVE	EC 1 PLUS	ULTRAPLAN BASIC	EC 1
NIVORAPID	EC 1 PLUS-R	ULTRAPLAN ECO	EC 1 PLUS
PLANIPATCH	EC 1 PLUS	ULTRAPLAN ECO 20	EC 1-R
PLANIPATCH	EC 1 PLUS	ULTRAPLAN F	EC 1 PLUS-R
PLANITEX D10	EC 1 PLUS	ULTRAPLAN MAXI	EC 1 PLUS
PLANITEX D10 STANDFEST	EC 1	ULTRAPLAN QUICK TRAFFIC	EC 1 PLUS-R
PLANITEX D10 TURBO	EC 1	ULTRAPLAN RENOVATION	EC 1
PLANITEX D5	EC 1	ULTRAPLAN TURBO	EC 1-R
PLANITOP FAST 330	EC 1 PLUS	ULTRATOP	EC 1
PLANO D	EC 1-R	ULTRATOP INDUSTRIAL	EC 1-R
PRIMER G	EC 1	ULTRATOP LIVING BIANCO	EC 1





Westend campus at Goethe University in Frankfurt

Upgrading the campus required eco-sustainable and high quality products

The Westend Campus of the Goethe University in Frankfurt was lately upgraded and extended to host one of Europe's most modern universities. State-of-the-art auditoriums were artistically connected with the buildings designed by the architect Hanz Poelzig in the 1930's to become a coherent ensemble in a landscape which is reminiscent of American elite universities.

Quality and eco-sustainable products

Since 2013 the Westend Campus has also been home to the faculties of psychology, educational sciences, and social sciences, hosting around 10,000 students and 1,000 employees. A new five-storey building (called PEG) was built which hosts auditoriums, seminar rooms, a department library, a cafeteria, a study service center and a central underground parking. The central administration with the university data centre is hosted in the neighboring building. The main building's design emphasizes clear lines, simple shapes, high functionality and tasteful aesthetics. The inside floor coverings have been chosen in

accordance: linoleum and textile floor coverings in the library, auditoriums and seminar rooms and needle-punched floor coverings in the office and administration areas. Overall an area of 30,000 m² had to be laid. Mapei product systems were chosen for the works, due to their quality and eco-sustainability characteristics.

Working on the substrates

On-site visit was initially carried out. It showed that the existing substrate, a calcium sulphate screed, needed strengthening and moisture curing interventions.

Mapei Technical Services Department recommended using EPORIP TURBO two-component, quick-hardening polyester resin to fill the useless joints and cracks. After a thorough cleaning, the substrate was treated with PRIMER G synthetic resin primer in water dispersion with a very low emission level of volatile organic compounds (VOC). The day after, ULTRAPLAN ECO self-levelling, ultra quick-hardening smoothing compound was used to prepare an uniform, even surface.





THIS PHOTO shows the flooring in the University library which was bonded with ULTRABOND ECO FIX.

PROJECTS LAYING RESILIENT AND TEXTILE MATERIALS



ABOVE, LEFT. In the offices of the administration department, needle-punch floors were laid with ULTRABOND ECO 170.
ABOVE, RIGHT. In the auditoriums and seminar rooms linoleum floor was laid with ULTRABOND ECO 520.

Eco-sustainable solutions for any kind of need

In an area of around 1,500 m² an induction loop system was installed, which enabled hearing impaired students to receive undisturbed audio signals wirelessly. A perfectly prepared substrate was required for the installation of such a system.

After cleaning the calcium sulphate screed, it was treated with PRIMER G to regulate its absorption. Copper strips with a special film were installed on the dried surface.

The surface was then smoothed over with PLANIPATCH fine-grained, ultra quick-drying, thixotropic cementitious smoothing compound mixed with LATEX PLUS. This system ensured a perfect bonding of the special film covering the copper strips.

PRIMER G was again applied on the dried surface which was levelled with ULTRAPLAN ECO. In the offices of the administration department, high quality needle-punch floor covering was laid over an area of around 15.000 m² with ULTRABOND ECO 170, adhesive in water dispersion with a quick, strong initial bond and very low emission level of VOC (certified EMICODE EC1 Plus).

Textile floor coverings were also laid on a area of 5,000 m² with ULTRABOND ECO 170 in another section of the building. Self-laying floor tiles were laid in the area of the raised axes floor slabs with ULTRABOND ECO FIX, adhesive in water dispersion which remains permanently tacky, with very low emission level of VOC.

In the auditoriums and seminar rooms linoleum floor in marbled gray and brown shades was laid with ULTRABOND ECO 520 adhesive in water dispersion on around 10,000 m². Mapei products' eco-sustainability and high performances fully satisfied the client and the project designers.

IN THE SPOTLIGHT

ULTRABOND ECO 520

It is a solvent-free synthetic polymer-based single-coat adhesive in water dispersion, easy to trowel. It has very low emission levels of volatile organic compounds (EMICODE EC1-certified). It has a high initial bond, but has a long open time which permits laying to be carried out up to 30-40 minutes after applying the adhesive. It was developed for installing linoleum on flooring subjected to heavy traffic and areas where wheeled chairs are present. It can contribute up to **4 points** to obtain the **LEED** (Leadership in Energy and Environmental Design) certification.



Technical Data

PEG and Administration Buildings,
Westend Campus, Goethe Institute, Frankfurt
(Germany)

Period of Construction: 2011-2012

Year of Intervention: 2012

Client: Goethe Institute

Project: BAL Bauplanungs und Steuerungs
GmbH

Intervention by Mapei: supplying products
for repairing screeds, smoothing substrates,
laying textile, needle-punch and linoleum

floorings

Contractor: HBM Hessisches
Baumanagement

Laying Company: Has GmbH

Laid Materials: needle-punch by Nadelvlies
Typ CarpetConcept – Tizo B; linoleum by
Forbo; textile floors by Eco 1

Mapei Distributor: W. & L. Jordan GmbH

Mapei Co-ordinators: Harald Bott and Olaf
Enke, Mapei GmbH (Germany)

Mapei Products

Substrate preparation: Primer G, Ultraplan
Eco, Planipatch, Latex Plus

Laying textile floorings: Ultrabond Eco 170,
Ultrabond Eco Fix

Laying linoleum floorings: Ultrabond Eco 520

For further information see

www.mapei.com and www.mapei.de



Ultrabond Eco 520

From Mapei's research and development laboratories a new adhesive in water dispersion specially developed for linoleum floors.

- One component, ready-to-use
- Synthetic polymer base in water dispersion
- **Low environmental impact(*)**
- High and quick initial setting

- Long open time
- "Pressure sensitive"(**)
- Suitable for laying in environments subject to intense traffic

(*)Certified by the GEV Institut as EC1 Plus, extremely low emission level of volatile organic compounds.
 (**)Rolling guarantees excellent transfer to the back of the floor covering, even several hours after laying.



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ADHESIVES • SEALANTS • CHEMICAL PRODUCTS FOR BUILDING





House of Representatives in Brussels

The new floor covering in PVC planks required a new conception in adhesives

The House of Representatives is one of the two Houses – the other is the Senate or “upper House” – that make up the Belgian Federal Parliament. The home of the House of Representatives is in the Palace of the Nation in Brussels, a Neo-Classical style building built in 1783. The complex has an articulated structure that has been under constant development since the end of the 19th century when, following the creation of a bicameral system, the original building was extended so that it

could also include the Upper House. The Palace and its buildings currently occupy a vast area in the form of an irregular quadrilateral, and also include the Belgian Ministry of Transport, the Belgian Ministry of the Navy and the Belgian Ministry of Communications.

The problems in obtaining perfect installation

Construction work started in 2008 on a new building called Forum 2 to provide a new,

ABOVE. An external view of Forum 2.

BELOW, LEFT. The raised floors before installing the PVC planks.

BELOW, RIGHT. One of the phases during the application of ULTRABOND ECO TACK LVT.





LEFT. Before installing the flooring, ULTRABOND ECO TACK LVT must turn from white to transparent.
BELOW, RIGHT. The floor once installation had been completed.



more modern and comfortable home for the House of Representatives. The construction of the building involved a second phase of interventions in 2012, with work being carried out on the interior finishes and floor coverings in the offices and meeting rooms (an area of around 18,000 m²). The managerial offices are characterised by raised floors, where the new floor is lifted by the screed to create an area underneath with easy access to house all the plant equipment and utilities. The designers opted for PVC floor covering in LVT (Luxury Vinyl Tiles), the latest evolution in vinyl flooring, which is more resistant and is particularly suitable for industrial and public environments. Mapei Technical Services Department visited the building site to carry out an inspection of the substrate and floor covering to be installed and, before suggesting the most suitable adhesive, decided to contact the Mapei Group's Corporate Research & Development Laboratory in Milan. The R&D Department also inspected the site to evaluate the requirements of the designer and the installation company: the adhesive had to guarantee excellent bonding and long-lasting stability for the PVC planks and had to contain no solvents. Also, because of the large glass windows around the building, there were large temperature variations at floor level that could cause problems to the floor covering. After assessing the various problems that came out during the inspection, Mapei Technical Services recommended ULTRABOND ECO TACK LVT, a solvent-free, acrylic resin-

IN THE SPOTLIGHT

ULTRABOND ECO TACK LVT

It is a solvent-free, acrylic resin-based adhesive in water dispersion for the non-permanent bonding of loose laid textile and resilient flooring tiles. When dry, it remains tacky so that floorings may be held in place and then easily removed and/or replaced. It may be used to hold tiles with any type of backing in place and to prevent them slipping, even on existing flooring or on any type of raised or heated floor. It can contribute up to **4 points** to obtain the **LEED** certification.

based adhesive in water dispersion which may be used to hold loose lay resilient and carpet tiles with any type of backing in place and to prevent them slipping on all types of substrate normally used in the building industry, on existing flooring or on any type of raised floor. The adhesive was applied on the substrate with a roller. After waiting several hours to let the water completely evaporate and allow the layer of ULTRABOND ECO TACK LVT to turn from white to transparent, the PVC planks were placed in position. This adhesive is particularly suitable for installing loose laid flooring planks, in that it reduces their tendency to shrink at the ends and between the joints.

This building site may quite rightly be considered a model for the next interventions using this type of PVC floor covering.

Technical Data

House of Representatives, Brussels (Belgium)
Period of Construction: 18th century

Period of Intervention: 2012-2013
Intervention by Mapei: supplying products for laying PVC LVT flooring in the offices and meeting rooms
Project: Archi 2000 (Philippe Verdussen)
Client: Chambre des Représentants
Contractor: Louis de Waele
Laying Company: Rinaldi
Laid Materials: PVC LVT floorings
Mapei Co-ordinator: Dany Remacle, Mapei Benelux SA/NV

Mapei Products

Laying PVC floorings:
Ultradond ECO Tack LVT

For further information
see www.mapei.com and
www.mapei.be



Grand hotel et de Milan

New wooden flooring for the Verdi suite and the suite dedicated to Tamara de Lempicka

The so-called "Albergo di Milano", now known as the Grand Hotel et de Milan, was inaugurated in 1863, and is the oldest hotel in Milan. The building is in an eclectic style and, towards the end of the 19th century, became particularly important because it was the only hotel in the city that offered a postal and telegraph service, making it a favourite haunt for diplomats and businessmen. Amongst the most illustrious guests that made the Grand Hotel et de Milan famous were Giuseppe Verdi, who chose to stay here from 1872, and who also died here on the 27th of January 1901. In the 1920's one of the most extraordinary guests was the *femme fatale* painter Tamara de Lempicka. The beautiful Polish artist was a guest in Milan of the Italian writer Gabriele D'Annunzio. The coming and going of illustrious guests that have chosen the Grand Hotel et de Milan as their "home in Milan" over the years is celebrated by the suites that have been named in their honour. And it is precisely suite 105, where Giuseppe Verdi passed away, and





the one which is now dedicated to Tamara de Lempicka, as well as the restaurant, that have had their wooden flooring renovated. After a roughing operation with sandpaper, the surfaces were grouted with ULTRACOAT BINDER solvent-free, water-based binder with no NMP (N-Methyl-pyrrolidone), which is mixed with sawdust from any type of wood. A coat of ULTRACOAT PREMIUM BASE was then applied, a two-component, water-based undercoat with high insulating capacity, specially developed to enhance the natural colour of wood without creating undesired colour variations in species rich in tannins or other extracts (oak, teak, etc.). The final finishing operation was carried out by applying ULTRACOAT HIGH TRAFFIC, a two-component, 100% polyurethane and water-based varnish containing no NMP for wooden floors, with very low emission level of volatile organic compounds (certified EMICODE EC1 R) and high resistance to wear and abrasion. A tradition as international hoteliers and the best Mapei eco-sustainable products for the treatment of wood are a winning combination for a story that is destined to continue with success.

IN THE SPOTLIGHT

ULTRACOAT HIGH TRAFFIC

It is a two-component, NMP (N-Methyl-pyrrolidone)-free, 100% polyurethane water-based varnish with high resistance to wear and abrasion and very low emission level of volatile organic compounds for wooden floors. It is suitable for use in civil and commercial environments, including those subject to extremely high foot traffic. Floors treated with this varnish have a natural, even finish, and their cleanability is very similar to that of impregnation cycles with oil and wax. If applied directly without a base product, it considerably enhances the colour of the parquet and does not yellow over the years. It can contribute up to **3 points** to obtain the **LEED** (Leadership in Energy and Environmental Design) certification for eco-sustainable projects.

IN THESE PHOTOS. View of the rooms in the Grand Hotel et de Milan after their wooden floors had been renovated with ULTRACOAT BINDER, ULTRACOAT PREMIUM BASE and ULTRACOAT HIGH TRAFFIC.

Technical Data

Grand Hotel et de Milan, Milan (Italy)

Period of Construction: 19th century

Year of Intervention: 2013

Intervention by Mapei: supplying products for renovating and finishing wooden floors

Laying Company: Angelo Cattaneo
Mapei Co-ordinator: Davide Zanotti, Mapei SpA (Italy)

Mapei Products

Products for finishing wooden floors: Ultracoat Binder, Ultracoat Premium Base, Ultracoat HighTraffic

For further information see
www.mapei.it and www.mapei.com



Bulgari hotel in Milan

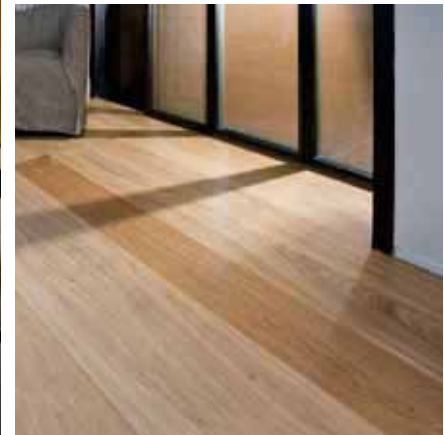
Eco-sustainable products for the wooden floors in the suites

In a private street between Via Montenapoleone, Via della Spiga (which are located in the fashion district of Milan), the La Scala Theatre and the Brera Academy, a building in Milan dating back to the 18th century has been tastefully renovated to become the Bulgari Hotel in Milan. It is set in the heart of the commercial and cultural district of a city that hides behind its facades delightful courtyards and unexpected gardens. One such example is the 4,000 m² private garden owned by the Bulgari Hotel, a regenerative oasis of serenity and relaxation set amongst the frenetic rhythms of Milan. Its 58 rooms and 11 suites offer guests unexpected tranquillity in the centre of Milan. The

furnishing and finishes help create a refined, welcoming atmosphere. The rare, high quality materials used, such as teak and oak, create an atmosphere of warmth and intimacy. To keep the wooden floors in perfect condition, Mapei products have been used for some time to keep the flooring alive, in cycles that vary according to the hospitality requirements of the hotel. Recently, this periodic maintenance involved the parquet in some of the suites. After a roughing operation with sandpaper, the surfaces were grouted with ULTRACOAT BINDER solvent-free, water-based binder with no NMP (N-Methyl-pyrrolidone), which is mixed with sawdust from any type of wood. A coat of ULTRACOAT



IN THESE PHOTOS.
The rooms in the Hotel Bulgari in Milan after finishing off the wooden flooring with ULTRACOAT HIGH TRAFFIC.



IN THE SPOTLIGHT ULTRACOAT BINDER

It is a one-component, water-based binder used to make grout for water-based finishing systems and ULTRACOAT OIL.

Its extremely high wetting properties, low viscosity and high binding power allow grout with a high content of residual solids to be obtained, characterised by its excellent, extended workability.

When ULTRACOAT BINDER is blended with sawdust, it has excellent adhesion and filling properties and is easy and quick to sand down.

It is solvent-free and contains no NMP (N-methyl-pyrrolidone).

It can contribute up to **3 points** to obtain the **LEED** (Leadership in Energy and Environmental Design) for eco-sustainable projects.

PREMIUM BASE was then applied, a two-component, water-based primer with high insulating capacity, specially developed to enhance the natural colour of wood without creating undesired colour variations in species rich in tannins or other extracts (oak, teak, etc.). The final finishing operation was carried out by applying ULTRACOAT HIGH TRAFFIC, a two-component, 100% polyurethane and water-based varnish containing no NMP for wooden floors, with very low emission level of volatile organic compounds (certified EMICODE EC1 R) and high resistance to wear and abrasion. The most suitable products for floors subjected to intense pedestrian traffic, that are destined to last for years.

Technical Data

Bulgari Hotel, Milan (Italy)

Period of Construction: 18th century

Year of Intervention: 2013

Intervention by Mapei: supplying products for finishing wooden floors

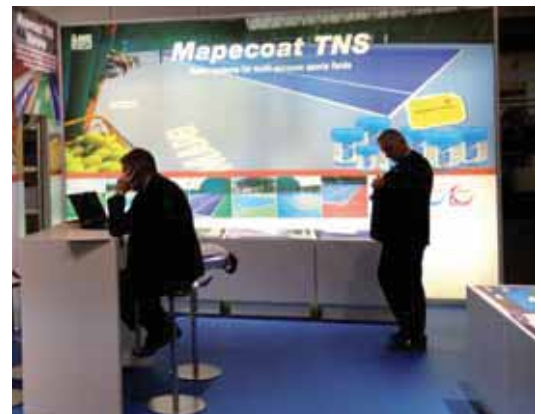
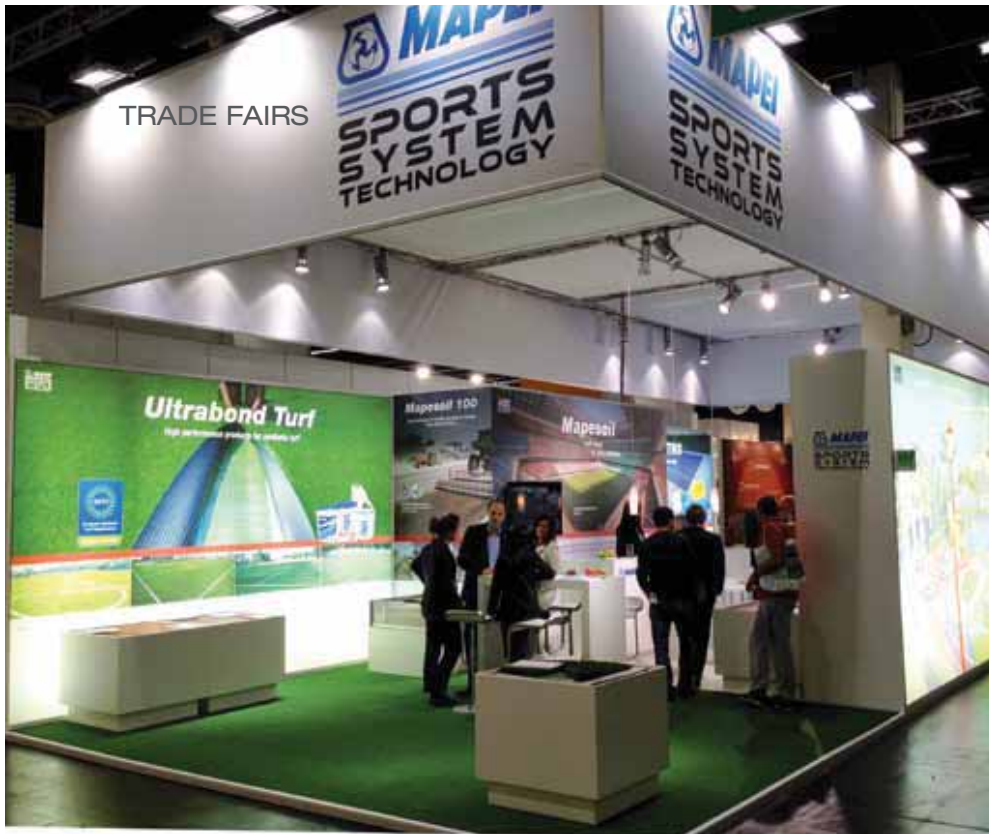
Laying Company: Castiglioni SpA

Mapei Co-ordinators: Davide Zanotti and Andrea Pillepich, Mapei SpA (Italy)

Mapei Products

Finishing wooden floors: Ultracoat Binder, Ultracoat Premium Base, Ultracoat High Traffic

For further information see www.mapei.it and www.mapei.com



FSB 2013

Amenity areas, pools and sports facilities

It is the international benchmark event for facilities designed for leisure, sport and pool. FSB 2013, held in Cologne from 22nd to 25th October, was attended by 622 exhibitors from 44 countries.

A wide range of products, innovations and services were on display over an area of 67,000 m². FSB's international prestige was particularly appreciated and attracted 25,000 visitors from 115

nations, with an increase in numbers from Great Britain, Russia, France and the Netherlands. The long-time involvement of IAKS (International Association for Sport and Leisure Facilities), IOC (International Olympic Committee) and IPC (International Paralympic Committee) contributed to these figures by organising a series of side events. They included the 5th Cologne Swimming Pool



Ultrabond Turf

High performance products for synthetic turf



ESTO
European Synthetic Turf Organisation
ASSOCIATE MEMBER





7-a-side pitches at the Juventus football school Grugliasco, Italy



Parma Calcio training pitch Parma, Italy



Da Radovia 11-a-side pitch Braga, Portugal



Football pitch Debrecen, Hungary

and Wellness Forum organised by IAKS and the German Federal Association for Swimming Pools & Wellness; 23rd IAKS Congress focusing on global trends for building sports and leisure facilities; IOC/IAKS Awards and IPC/IAKS Distinction for Accessibility, rewarding the world's best projects in terms of architectural accessibility and innovation. The winning projects included the Bao'An Stadium in Shenzhen, China; the Shanghai Oriental Sports Center in China and National Stadium in Warsaw, Poland.

FSB 2015 will be held in Cologne from 27th to 30th October.

Making way for synthetic turf

One of the leitmotifs of FSB 2013 was synthetic turf. Alongside, amongst others, the European Synthetic Turf Organisation, ESTO, and the International Federation of Association Football, FIFA, Mapei was also present in Pavilion 11 with its own 60 m² stand and a full range of products for surfaces used for various different sports. This wide selection of products that goes under the name of Mapei Sport System Technology has been used successfully in sports facilities all over the world for years now. For example, the company helped construct the athletics tracks at the Olympic Stadium in London built for hosting the Olympic Games in 2012.

FSB 2013 provided the chance for Mapei to present two innovative high-performance products for the synthetic turf

industry: MAPESOIL and ULTRABOND TURF. MAPESOIL is a solution for the artificial turf sports field sub-bases construction. ULTRABOND TURF is a high-performance adhesive for laying synthetic turf. Also to the fore was MAPECOAT TNS SYSTEM, which includes synthetic resin-based products in water dispersion for tennis courts, multipurpose playing fields and urban features, and ADESILEX G19, a high-performance adhesive for bonding rubber athletics tracks.

Mapei systems at the 23rd IAKS congress

Worldwide trends in the construction of sports facilities and other leisure facilities were also discussed at the 23rd IAKS Congress. Over four days' proceedings, the International Association for Sport and Leisure Facilities outlined the best architectural and operating solutions for high-performance sport with the help of 45 experts, focusing on an active and healthy lifestyle. Approximately 550 participants from 38 countries listened to talks on such issues as studies into London's Olympic facilities and their subsequent development and sustainability from an ecological, economic and social perspective. Mapei presented a wide range of its technological products to an audience of professionals at the conference and, in particular, those products (MAPESOIL) allowing the re-utilisation of surfaces made of synthetic turf.

INTERVIEW

Mapei engineer Elisa Portigliatti, Specialist in Products for Sport Facilities (in the photo in the middle, on the facing page)

Mapei offers cutting-edge products for sporting arenas hosting the most important world-class events. Can you give us a few examples? The technology of Mapei products has been a key player during the most important international sporting events, from the Montreal Olympics in 1976 to the London Olympics in 2012, right up to the most recent Winter Olympics held in Sochi. Thanks to the intense activity carried out in the Research & Development laboratories, Mapei is able to offer cutting-edge solutions for floor-layers to create any type of playing surface, from artificial turf fields for contact sports to acrylic resin surfaces for tennis, basketball and volleyball courts, right up to rubber-tracks used for athletics events.

The star of the show at FSB 2013 was synthetic turf. What did Mapei propose for this event? This important two-yearly trade fair was the ideal occasion to present the application of MAPESOIL technology, which uses the soil stabilisation method to prepare sub-bases for artificial grass playing surfaces. At the same time, MAPESOIL also allows old synthetic grass surfaces to be re-used so they do not have to be disposed of.

How much is the interest in sports arenas growing in different countries? The international community's interest in the creation of new sports arenas follows the natural enthusiasm for the most important sports events and, at the moment, the most interesting areas are South America and the Middle East. Other countries, like Italy, are going through a period in which most of the resources are being invested in the management, maintenance and requalification of existing arenas.

MAPEI
SPORT
TECHNOLOGY

Mapecoat TNS

Resin systems for multi-purpose sports fields

Tennis Academy Varesse
Palazzolo sull'Oglio, Italy

Available in 20 standard colours, others colours on request

ITF COURT FACE 1 SLOW
ITF COURT FACE 3 MEDIUM
ITF COURT FACE 4 MEDIUM-FAST

- Tennis courts Marano Vicentino, Italy
- Multisport area Villa Sora Institute Frascati, Italy
- Multisport area Palmi, Italy
- Tennis court Busto Arsizio, Italy
- Tennis court, San Biagio, Genova, Italy
- Tennis court for the Italian Tennis Federation Potenza, Italy
- SI Sport tennis court, Turin, Italy

A multisport court in Montmeló, Spain

An old sports court was renovated with safe and durable products

IN THE SPOTLIGHT MAPECOAT TNS FINISH 1.3.4

It is a coloured acrylic resin-based coating product in water dispersion with selected fillers for building indoor and outdoor tennis courts and multi-purpose playing surfaces. It is characterized by excellent performance, providing a perfect bounce to the ball and safe, secure changes in direction for players. It is available in three court-pace categories (1, 3 and 4) and is certified by the ITF (International Tennis Federation).



The students of CEIP (Centro de Educación Infantil y Primaria) Pau Casals nursery and primary school in Montmeló (a Spanish city not far from Barcelona) can now use the school's new sports court. The court covers a surface of 1,300 m² and allows the practice of different sports, such as basketball, handball, 5-a-side football, and volleyball. The former court had been built in the 1980's and its floor caused slips and falls among the students who used it, due to its damaged surface. Mapei's Technical Service Department suggested using MAPECOAT TNS SYSTEM, a coloured acrylic resin-based sys-

tem for indoor and outdoor tennis courts and multi-purpose playing surfaces. Thanks to its use, the floor now has a non-slip surface, resistant to abrasion and UV rays.

Building a multisport surface

The work included an initial milling of the floor to improve the final coating's bonding. It was followed by dusting the surface and repairing the expansion joints with NIVORAPID quick-drying, thixotropic, cementitious smoothing compound, mixed with LATEX PLUS. MAPECOAT I 600 W two-component transparent epoxy primer in water dispersion was



An image of the field makeover.



then applied on the surface. The next step has been the application of MAPECOAT TNS BASE COAT semi flexible acrylic resin base coat used to prepare and level the substrates before applying MAPECOAT TNS FINISH 1.3.4 coloured coating. MAPECOAT TNS FINISH 1.3.4 is available in 20 colours, two of which have been used for the court of CEIP Pau Casals school.

To complete the work, the surface has been painted with MAPECOAT TNS PAINT coloured paint made from acrylic resins in water

dispersion. MAPECOAT TNS LINE was used for marking out the lines of the court. This is an acrylic resin-based paint in water dispersion designed to mark out indoor and outdoor sport courts and pitches.

The use of the MAPECOAT TNS SYSTEM proved to be the ideal solution for this building work. It satisfied both the client and the building company. It also ensured resistance and durability as well as the safety of the sportspeople, even when raining and on wet floors, preventing slips and, therefore, injuries.



PHOTOS 1 and 2. The substrate was first milled before repairing the joints with NIVORAPID +LATEX PLUS.

PHOTOS 3 and 4. Applying MAPECOAT I 600 W before laying MAPECOAT TNS BASE COAT.

PHOTO 5. Applying MAPECOAT TNS FINISH 1.3.4 in two colour shades.

PHOTO 6. The work was completed by applying MAPECOAT TNS PAINT and MAPECOAT TNS LINE in two colour shades.

Technical Data

Multisport Court at CEIP Pau Casals School, Montmeló (Spain)

Year of Intervention: 2013

Intervention by Mapei: supplying products for repairing and preparing the substrates and for laying an acrylic resin-based multisport surface

Client: CEIP Pau Casals

Laying Company: Two Lines Sport

Mapei Co-ordinator: Jaume Valls, Ibermapei (Spain)

Mapei Products

Treating the substrates:

Nivorapid+Latex Plus

Rebuilding the playing surface:

Mapecoat I 600 W, Mapecoat TNS

Finish 1.3.4, Mapecoat TNS Base Coat,

Mapecoat TNS Paint

Marking out the lines: Mapecoat TNS

Line

For further information visit

www.mapei.com and

www.mapei.es

TRADE FAIRS



DUBAI, 25-28 November 2013

Mapei at The BIG 5

The Big 5 is the largest exhibition of innovative building and construction products and services in the Middle East. The 2013 edition spread over 48,610 m² of floor space and attracted a record 74,474 participants from 150 countries, with a 23.4% increase from the previous year's show. In terms of exhibitors, more than 2,742 companies from 57 countries exhibited at The Big 5, with a 13.5% growth from 2012. The Mapei Group attended The Big 5 2013 through its UAE subsidiary IBS Mapei LLC and was also present at Middle East Concrete (MEC), a side event devoted to concrete technology. The Big 5 2014 will be held in Dubai from the 17th to the 20th of November.



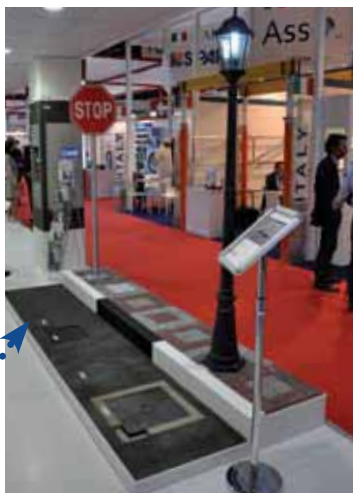
The Big 5 event in 2013 can boast 74,474 participants from 150 countries (+23.4% in comparison with 2012). The picture shows the Mapei stand.

3D Design Solution

Mapei showcased products and technologies via three-dimensional (3D) displays which offered distributors, retailers, contractors, building companies and other professionals a clear, three-sided perspective. Mapei's 3D Design Solution makes use of cutting edge technology that enables design and architectural firms to model multiple angles of a build-

ing or structure using realistic renderings. The company highlighted its solutions for installing ceramic tiles and mosaics in bathrooms and wet areas (KERAFLEX, ULTRACOLOR PLUS, MAPELASTIC); products for road maintenance (MAPEGROUT SV, MAPEFILL); systems for structural waterproofing, concrete repair and admixtures for concrete (MAPEFER 1K, MAPEPLAN TU WL and DYNAMON SR1380 which is distributed on the UAE market by IBS Mapei LLC); adhesives, mortars, waterproofer, sealants, levelling compounds and products for structural repairs and the

Installation of ceramic tiles and mosaics in bathrooms and wet areas



Road maintenance



Repairing and protecting concrete



Waterproofing

Building indoor and outdoor sport facilities



Repairing balconies, terraces and outdoor floorings

construction of balconies (MAPEGROUT T60, KERAFLEX MAXI S1, MAPELASTIC SMART); solutions for indoor and outdoor sport facilities (ADESILEX G19, MAPECOAT TNS SYSTEM).

In the spotlight

Two Mapei products were in the spotlight at The Big 5: PLANITOP 400 ME and RE-CON ZERO. PLANITOP 400 ME is a shrinkage-compensated thixotropic mortar for treating damaged reinforced concrete in structures such as corners, beams, pillars and concrete panels. It is manufactured and distributed on the Middle East market by IBS Mapei LLC. Featuring excellent bonding and high mechanical strengths, its use is especially suitable in the Middle Eastern region which is subject to high temperatures and humidity for most part of the year. RE-CON ZERO is an innovative solution that allows the complete recycling of the returned concrete from the building site to the cement production plant within minutes and without any wastes. It does not require special equipment as its admixtures treat the returned concrete in the mixer trucks and the resulting material can be used as aggregate for new concrete production. It reduces the use of natural aggregates, thus preserving natural resources and reducing the cost for waste disposal.

Mapei at Middle East Concrete

During Middle East Concrete a two-day event was held on the 26th and 27th of November: the International Concrete Sustainability Conference, which was organized in partnership with NRMCA (the National Ready Mixed Concrete Association based in Maryland, USA) and Grey Matters Consultancy, a company located in Dubai and offering training, publications, consultancy and recruitment. The conference focused on the concrete's environmental impacts and on available sustainable concrete products and construction techniques. The technical presentation on 'New Sustainable Technology to Recover Returned Concrete' by Giorgio Ferrari from Mapei SpA's HPSS (High Performance Solidification/Stabilization) Department gave an insight to the conference attendees about RE-CON ZERO as a revolutionary product. On 27th November, a live practical demonstration of RE-CON ZERO was carried out in the demo area of Middle East Concrete by Giorgio Ferrari and Walter Nussbaumer, Mapei Group's Admixtures for Concrete Product Manager.

LEFT. Mapei's experts attended the International Concrete Sustainability Conference on 26th-27th November, 2013.

RIGHT. A live practical demonstration of the RE-CON ZERO was carried out on 27th November.

MAPEI GROUP'S NEW SUBSIDIARY IN QATAR

Last February the Mapei Group founded a new subsidiary: Mapei DOHA LLC. The company is based in Qatar and joined Mapei IBS LLC (with headquarters in Dubai, UAE) as a Group's subsidiary in the Middle East. The aim of this investment is growing in the local booming market by being closer to Mapei's current and potential customers and making the Mapei brand ever better known in the Qatari market.





Atlantis hotel in Dubai

A huge complex spreading over thousands square meters. Mapei products were used to build the hotel's swimming pool, lobbies and entrances

Atlantis is one of the Middle East's most spectacular new resort hotels in Dubai. Situated on palm-shaped island Palm Jumeirah, the complex includes an hotel and a water park. Its design, management and building cost a total over 850 million dollars.

Over 1500 rooms on 112 acres

The resort was opened in November 2008 and has fast become one of Dubai's iconic resorts. Its figures are striking: it has 1,539 rooms spread over a 112.5 acre site with 42 acres of water park amusement and further marine and entertainment attractions. It hosts one of the largest open-air marine habitats in the world, with some 65,000 marine animals in lagoons and displays including "The Dig", a maze of underwater corridors and passageways providing a journey through ancient Atlantis.

Working in the swimming pools

The resort can boast a 2,500 m² open-air swimming pool, one of the largest in the United Arab Emirates. When building the swimming pool, the surfaces were carefully cleaned and levelled. The concrete substrate

was waterproofed using MAPELASTIC, a two-component, flexible cementitious mortar for waterproofing concrete structures, balconies, terraces, swimming pools, etc. even at high temperatures. It was reinforced with MAPENET 150 fibreglass mesh, which makes it resistant to movements in the substrate, bridging cracks of up to 1.5 mm.

After complete curing of MAPELASTIC, PLANICRETE rubber latex was used to complete the substrates' preparation. The glass mosaic chosen for the swimming pools was laid using ADESILEX P10 high-performance, white cementitious adhesive with no vertical slip and extended open time. The adhesive was enhanced by the addition of ISOLASTIC, diluted 1:1 with water, to improve its bonding, deformability and waterproofing properties. This adhesive system is classified as C2TE S1 (highly-deformable, improved, cementitious adhesive with extended open time) according to ISO 13007 standard.

Works in the hotel

Marble mosaic tiles were bonded in several indoor areas of the hotel with KERAFLEX MAXI

IN THE SPOTLIGHT MAPELASTIC

It is a two-component mortar based on cementitious binders, fine-grained selected aggregates, special additives and synthetic polymers dispersed in water, used for waterproofing balconies, terraces, bathrooms and swimming pools. Thanks to the high content and quality of the synthetic resins, the cured layer of Mapelastik remains constantly flexible under all environmental conditions and resistant to the chemical attack of de-icing salts, sulphates, chlorides and carbon dioxide. It can contribute up to **3 points** to obtain the **LEED** (Leadership in Energy and Environmental Design) certification.





S1, high-performance deformable cementitious adhesive with no vertical slip, extended open time and Low Dust technology, classified as C2TE S1 according to ISO 13007 standard.

To lay natural stone slabs in the lobby and entrance areas of the hotel, GRANIRAPID was chosen, a two-component, high-performance, deformable, rapid-setting and hydrating cementitious adhesive, certified as EMICODE EC1 R Plus (very low emission level of volatile organic compounds) by GEV and as C2F S1 according to ISO 13007.

The joints between both mosaic tiles and stone slabs were grouted using ULTRACOLOR PLUS high-performance, anti-efflo-

rescence grout for joints from 2 to 20 mm, with water repellent Drop-Effect® and mould-resistant BioBlock® technologies.

In the toilets and other wet areas, before laying natural stone coverings, substrates were waterproofed with MAPEGUM WPS quick-drying flexible liquid membrane, is certified as EMICODE EC1 Plus by GEV as a product with very low emission of volatile organic compounds. The flexibility of MAPEGUM WPS enables the surfaces to withstand normal expansion and contraction movements of the substrate due to temperature variations and vibrations. MAPEBAND was used to waterproof the corners and areas around the drains.

ABOVE. The swimming pool's substrates were waterproofed with MAPELASTIC. Once dried glass mosaic tiles were bonded with ADESILEX P10 mixed with ISOLASTIC.

Technical Data

Atlantis Hotel, Dubai (United Arab Emirates)

Period of Construction: 2005-2008

Period of the Intervention: 2006-2008

Intervention by Mapei: waterproofing concrete substrates and laying mosaics in the swimming pool; laying glass mosaics, marble mosaics and natural stones in the hotel's lobbies, entrances and other indoor areas;

waterproofing substrates and laying stone coverings in the toilets

Client: Kerzner International

Project: Al Naboodah Laing O'Rourke

Contractor and Laying Company:

Millerdruck Marble & Stone

Mapei Co-ordinator: Nisreen Salman, IBS Mapei LLC (UAE)

Mapei Products

Waterproofing the substrates: Mapeband, Mapegum WPS, Mapelastix

Laying glass mosaics: Adesilex P10, Isolastic, Ultracolor Plus

Laying natural stone and marble mosaics: Keraflexi Maxi S1, Granirapid

For further information see www.mapei.ae and www.mapei.com

**Portello Square
Milan (Italy)**

Alloria Assicurazioni

Mapestone System

From major projects to quarry: the successful application of an innovative product for laying stone surfaces

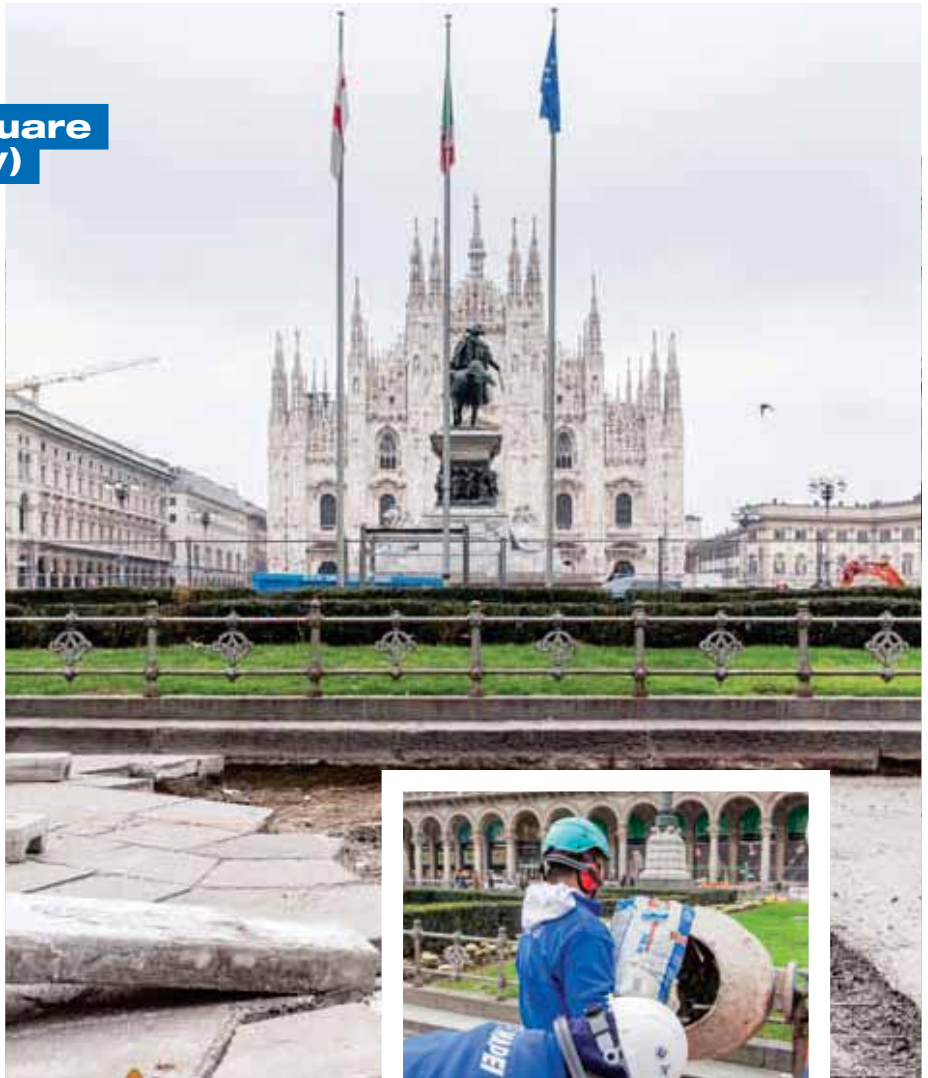


Duomo Square Milan (Italy)

For a number of years the Mapei range of products has included the MAPESTONE SYSTEM, a product line dedicated to the installation of architectonic stone floors.

In spite of the high resistance of the stone-based materials used, the products traditionally used to install and grout the stone cube setts and slabs have always led to the same type of problems: subsidence in the substrate, emptying of the joints and, as a result, displacement of the stone elements. These phenomena become more serious with time due to intense vehicle traffic, bad weather – the surfaces are exposed to high temperature variations, freeze/thaw cycles and de-icing salts – and by stresses generated by vehicles going round corners and bends, braking and manoeuvring. The MAPESTONE products have been developed to overcome the limits typical of the systems normally used, made from sand and cement. The system was studied and developed for surfaces in exposure classes XF3 and XF4 (according to UNI EN 206-1:2006), resistant to freeze/thaw cycles and de-icing salts. It includes:

- MAPESTONE TFB 60: pre-blended mortar particularly suitable for making screeds with high mechanical strength (C50/60) resistant to freezing weather and de-icing salts.
- MAPESTONE PFS 2 and MAPESTONE PFS PCC 2 (the latter with low modulus of elasticity): pre-blended mortars for grouting architectonic stone floorings with high mechanical strength (C45/55), resistant to freezing weather, de-icing salts and abrasion.



IN THIS PAGES. A few reference projects where stone floors were repaired with MAPESTONE.

A challenge faced and won

In order to demonstrate the effectiveness of its products, Mapei launched an interesting challenge to manufacturers of porphyry, who were by now used to the inherent weakness of installation systems and, therefore, the frequent repair work carried out on the surfaces.

The challenge was accepted by Antiqua Tempora, a company from Trentino (Northern Italy) that produces porphyry. They are on the market with their own range of eco-sustainable products made mainly from manufacturing waste, which is usually disposed of, and from old road surfaces. The company would like to strengthen the eco-sustainable value of its products, including through the use of systems that guarantee the durability of the installation process.

Antiqua Tempora singled out a plot of around 100 m² at the quarry in Fornace (in the province of Trento, Northern Italy) around 800 metres above sea level, an area where work is carried out on the porphyry. This is a particularly critical area right in front of the weigh station where vehicles have to manoeuvre, and is an area where the cement road surface has



Repubblica Square Bernareggio (Italy)

THE EXPERT'S OPINION



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2

had to be repaired a number of times without ever being able to resist for long periods to the stresses to which it is subjected. The plot is also in direct sunlight and sprinkled with water during the summer months, causing sudden temperature variations ranging from +10 to +50 °C. During the winter, on the other hand, the temperature goes from -20 to +10 °C, with long periods of freezing weather and widespread use of de-icing salts.

In April 2012, different types of Antiqua Tempora products were installed (cube setts and small blocks) using MAPESTONE TFB 60 and MAPESTONE PFS 2. The installation of architectonic stone floors and surfaces subjected to heavy vehicle traffic is normally carried out by creating a concrete slab (Rck 30) 15-20 cm thick to stabilise the substrate and improve load distribution. In this case, however, the building site's conditions were worse and MAPESTONE TFB 60 was applied directly on the ground, with just a thin layer of fragmented rock in between. Once finished, the area was subjected to the temperature variations mentioned previously, movements carried out by mechanical diggers, the passage of articulated lorries and trucks from the quarry (more than 30,000) and snow ploughs (approximately 20 times). The general opinion was that the surface would last for around one year, after which it would be so badly damaged that it would have to be removed. After more

PHOTO 1. An overview of the quarry where the experiment was carried out.

PHOTO 2. A close up of the substrate, the ground and a thin layer of fragmented rock.

PHOTO 3. Various steps of the installation of cube setts and small blocks using MAPESTONE TFB 60.

PHOTO 4. Grouting the joints in the road surface with MAPESTONE PFS 2.

PHOTO 5. Final cleaning of the road surface.

PHOTO 6. The test area was subjected to the passage and manoeuvres of heavy-goods vehicles for more than one year.

PHOTO 7. The condition of the road surface more than one year after installation.



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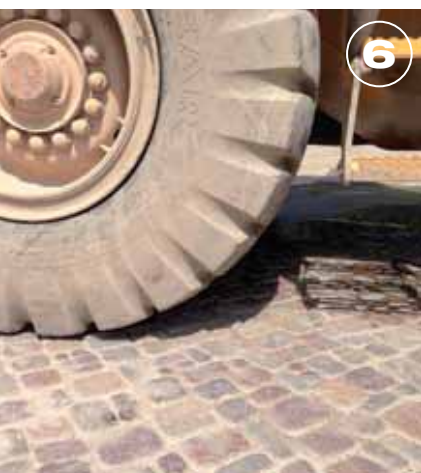
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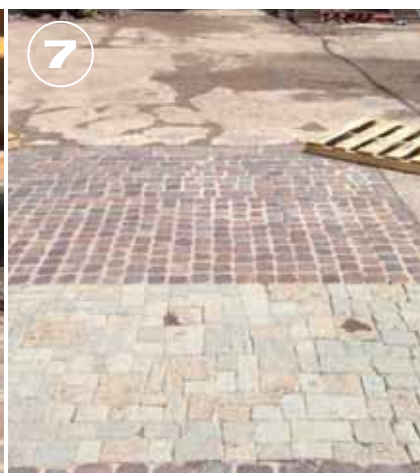
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than one year, however, the surface was smooth due to the friction generated by the vehicles while manoeuvring, but there were no signs of fractures or hollows, thus demonstrating the excellent resistance of MAPESTONE TFB 60. Neither the substrate made from MAPESTONE TFB 60 nor the joints grouted with MAPESTONE PFS 2 showed any signs of subsidence. Some cracks had formed, but only in joints around the edge of the area and

in correspondence with the areas in the surface where the cube setts were adjacent to the small blocks. The formation of cracks in these points is to be expected because, if the surface had been installed according to specification, expansion joints would have been included which, in the case of the sample area, had not. The MAPESTONE system, together with the qualified experience of the Antiqua Tempora installers, has allowed this experiment to be a success, the only one carried out until now in this sector, and demonstrates the reliability of the products and their resistance to mechanical and thermal stresses. For a further example on the use of MAPESTONE, please refer to the article "Problem-free Architectonic Floors" in *Realtà Mapei International* no. 41.



6



7

Stefania Boselli and **Marcello Deganutti.**
Mapei SpA Technical Services Department



Choose Mapestone. Time will prove you right.

Traditional stone flooring
- with signs of deterioration

Stone flooring installed with
Mapestone® System - durable and long-lasting

Mapestone System

The innovative installation system for porphyry and interlocking stone flooring, to make installing quick and long-lasting.

Mapestone System for architectonic stone floors which lasts a lifetime

- less maintenance
- less noise
- lower risk of falling
- Flooring rapidly put into service
- Resistant to freeze-thaw cycles and de-icing salts
- High resistance to wear and tear from public transport and commercial vehicles



LONG-LASTING



LESS MAINTENANCE



HIGHLY RESISTANT



LESS NOISE

Product info



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Mapei is with you: take a closer look together at www.mapei.com





Mo i Rana Mine in Norway

A unique, harsh environment now has safer
and more comfortable working conditions

The Rana Gruber Mine is near the village of Storforshei in the Nordland Region, around 40 km south of the Arctic Circle.

Located in the centre of Norway, the area is in an excellent position from a logistics point of view for the transportation of the extracted iron ore.

An important mine for Norway

Since ancient times the Dunderlandsdalen Valley has been well-known for its reserves of iron ore. Rana Gruber AS, the company that operates the mine, is one of the largest mining companies in Norway. Since 1999, iron ore has been extracted from the Rana Gruber mine using the open cast method (the deposits of iron ore are found close to the excavation face on the surface, and the rock is extracted by removing it from the open quarry). Nowadays the company also carries out underground mining, using drill and blast excavation. The yearly production of iron ore in Rana Gruber is 3 – 4 million tonnes.

A unique area below the ground

In order to save time and avoid transporting people from underground up to surface, the mining company decided to use the space down in the mine as office, meeting room and canteen. This installation is known as “the Cantina”. The Cantina is used as a rest area and for the lunch breaks of the miners and team leaders, who also use the meeting rooms for meetings.



The area is 300 m below the ground level under the mountain that overlooks the mine and 40 m below sea level.

The Cantina covers a total area of around 1000 m². It is 40.5 m long overall and varies in height from 7.5 to 9 m. The area is divided into three small offices (7.5 m² each one), four bathrooms with two small storage areas, a kitchen and a large canteen.

The contractor who got the job to excavate and build the Cantina contacted Mapei AS UTT in order to create an area combining cutting-edge security installations and a light coloured and modern appearance. The walls and ceiling of the Cantina are solid rock which has been secured by a 10 cm layer of a steel fibre reinforced shotcrete. 4 m long rock anchoring bolts were also set in 2x2 m pattern to consolidate the structure.

The entire surface was then sprayed with two layers of MURTETT HVIT, a special mortar made from Portland cement and fine-grain

ABOVE AND ON FACING PAGE. External views of the mine.

BELOW, LEFT. After applying the shotcrete, rock anchoring bolts were inserted in the rock walls.

TO THE RIGHT. Spraying MURTETT HVIT mortar on the walls and ceiling of the area known as “The Cantina”.

**IN THE SPOTLIGHT
MAPEQUICK AF2000**

It is an alkali free accelerator for wet mix sprayed concrete. It is very reactive and causes sprayed concrete to set immediately.

It is therefore suitable for fast securing of rock mass in tunnels and mines.

MAPEQUICK AF2000 can be used for spraying shotcrete in thick layers in one operation and even on rock with moderate water leakages.

The final strength of the sprayed concrete is normally not decreased when using MAPEQUICK AF2000.



PROJECTS UNDERGROUND CONSTRUCTIONS



ABOVE, LEFT. The entrance to the mine.

IN THESE PHOTOS. The rocks forming the walls and ceiling in some of the rooms were left exposed.

Technical data

"The Cantina", Rana Gruber mine, Norway

Period of Mapei Intervention: 2010-2012

Intervention by Mapei: supplying admixtures for structural anchoring, admixtures for shotcrete and products for waterproofing underground environments

Designers: Geir Paulsen, Rana Gruber AS

Client: Rana Gruber AS

Contractor: LNS- Leonhard Nilsen og Sonner

Mapei Co-ordinators: Roy Hansen and Thomas Beck, Mapei AS (Norway)

Mapei Products

Preparing and repairing the stone substrates:

Dynamon SX-N*, Mapetard SD2000, Mapequick AF2000, Murtett Hvit*, Zinkbolt*

*These products are manufactured and distributed in Norway by Mapei AS (Norway)

For further information visit

www.mapei.com or www.mapei.no

sand with 0.2 mm diameter particles, available both in white and various colours, manufactured and distributed in Norway by Mapei AS. In combination with all rock bolts ZINKBOLT thixotropic mortar was used.

In addition, the following concrete admixtures were used: DYNAMON SX-N, a latest-generation, nano-structural admixture for concrete also manufactured by Mapei AS, MAPETARD SD-2000, a liquid consistence controlling admixture, developed specifically for shotcrete, and MAPEQUICK AF-2000 setting accelerator for shotcrete, which is also suitable for use on rock faces with a low temperature. White MURTETT HVIT mortar was also used to finish off the rooms.

Thanks to the products recommended by Mapei, even "extreme" environments such as this one are able to provide pleasant, comfortable surroundings.

Commitment.
The detail which
makes the difference.

Mapei Underground Technology Team

Mapei Underground Technology Team is Mapei's answer to the needs of those who work in the world of underground construction – it's the result of Mapei's investment into the Research & Development of specific products, of Mapei's commitment and devotion of its team who embody professionalism and experience. Because commitment makes the difference. By your side from the beginning to the completion of the project.

- Intervention capability anywhere in the world within 24/36 hours
- Production increase
- Cost reduction



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www.utt-mapei.com, hq.utt@utt.mapei.com



Romagna shopping centre

The roof was refurbished with MAPEPLAN T M waterproofing system



In summer 2013, the waterproofing system on the roof of a shopping centre located in Savi-gnano sul Rubicone, just outside Rimini (Central Italy) was refurbished. The installation work of the new waterproofing system was carried out over the August-September 2013 period. The work involved two buildings belonging to the Romagna shopping centre, which is home to a number of shops. Work was carried out on a total surface area of around 6,400 m². The two buildings are over 5 and 10 m high, respectively, and both had trouble with widespread leaking.

The buildings' roofs were waterproofed with the fully exposed application of a 2.0 mm-thick TPO/FPO membrane called MAPEPLAN T M, secured with a mechanical fastening system.

The abundance of air-conditioning equipment, pipework and ducting elements on the roof, along with a somewhat sizeable sign mounted on a weighted base, was a critical factor in the project and made for a more complex work process.

Requirements of the waterproofing system

With refurbishment work being performed on flat roofs on a building over 10 m high located in an area overlooking the sea, and with approximately 1.5 m high parapets around the edge of the roof, this was a relatively complex project entailing careful calculations when it came to the mechanical fixings required to withstand the wind uplift force. When dealing with roofs of this kind, extra care is required to ensure that there are no problems with rainwater being drained away, especially given that rainfall intensity is often exceptionally high in the area. The refurbishment project was carried out without disrupting the business of the shops underneath. Energy efficiency and the desired longevity of the waterproofing membrane were also factored into the job. Adopt-

ing a refurbishment system that would allow to leave the old membranes in place, so as to take the hassle of disposal out of the equation, proved crucial since total removal would not only have been expensive, but would also have complicated the project and meant more time on the job.

The MAPEPLAN T M solution

To comply with the rules and meet the client's requirements, Polyglass (a subsidiary of the Mapei Group) proposed a waterproofing system comprising a TPO/FPO flexible polyolefin synthetic membrane called MAPEPLAN T M, as described below. The roof had a lightweight screed waterproofed with a bitumen membrane. Following specific tests to determine its density, the best solution for fastening the MAPEPLAN T M membrane turned out to be the use of self-tapping screws. The contractor was provided with density calculations and screw positioning with a detailed map, put together by the Polyglass Technical Services Department, based on a precise calculation of the wind uplift force, in compliance with current regulations and Eurocode requirements. The installation surface was prepared by removing all irregularities (blisters, wrinkles, etc.) in the existing membranes and laying a levelling layer of POLYDREN, comprising a nonwoven material with a density of 300 g/m² to ensure a flat surface. The rainwater drainage system was reinstated with new drains and new connections to them. MAPEPLAN T M membrane was loose-laid with the sheets overlapping by approximately 12 cm; the overlaps were thermally welded with hot air using specific automatic and manual welding equipment. The roof was finished off with flashing and fastenings to the parapets in addition to walkways produced using the MAPEPLAN T WALKWAY membrane so that maintenance personnel can get to the building's services equipment.

Technical Data

Romagna Shopping Centre,

Savignano sul Rubicone (Italy)

Year of Construction: 2005

Year of Intervention: 2013

Intervention by Polyglass:

supplying products for refurbishing the waterproofing system on the roofs of two buildings

Client: IBS Srl – arch. Sandro Balsamà

Laying Company: Edilasfalti Srl

Polyglass Co-ordinator: Mauro Redemagni, Polyglass SpA (Italy)

Mapei Products

Refurbishing the roofs' waterproofing system:

Mapeplan T M TPO/FPO flexible polyolefin synthetic membrane for waterproofing exposed roofs, manufactured to meet harmonized standard EN 13956; Mapeplan T Walkway; Polydren; Mapeplan T accessories.

These products are manufactured by Polyglass SpA, a member of the Mapei Group.

See website www.polyglass.com for technical data sheets.

PHOTO 1. The shopping centre's roof before the intervention.

PHOTO 2. Laying the MAPEPLAN T M membranes.

PHOTOS 3, 4 and 5. View of the roofs after completion of the works.



4



5

FEATURES AND ADVANTAGES OF THE MAPEPLAN T M SYSTEM

The MAPEPLAN T M waterproofing system comprises a UV-stable and weather-resistant TPO/FPO flexible polyolefin waterproofing membrane featuring a mechanically very strong internal polyester mesh carrier specifically designed and manufactured for fully exposed membrane systems, secured with a mechanical fastening system. Its advantages are:

Loose-laid system with mechanical fastening system

The loose-laid system used for all layers in the roof build-up offers the advantage of being able to absorb the substrate's movements and expansions without them affecting the waterproofing membrane, which can slide accordingly. Consequently, splitting, cracking or any other defects that might occur in the cast concrete substrate cannot damage the waterproofing membrane. Loose laying also allows checking the waterproofing membrane's seams and surfaces using the "tracer gas" system, which is also used to detect leaks.

Securing the waterproofing membrane with a mechanical fastening system has the advantage of fixing the waterproofing membrane safely directly to the load-bearing structure underneath.

What enables the membrane to withstand negative wind pressure is actually the specific mechanical fixing system, which is calculated and sized to meet Eurocode requirements based on actual job conditions, such as:

- building height and shape
- positioning, location
- type of substrate
- type of waterproofing membrane and carrier
- design wind speed.

Compliance with harmonized standards

The MAPEPLAN T M waterproofing membranes have been manufactured and certified to meet the European harmonized standard EN 13956; MAPEPLAN T M can contribute points to obtain the LEED (Leadership in Energy and Environmental Design) certification.

"Multi-extrusion coating" production process

MAPEPLAN T M membranes are manufactured in a modern, technologically advanced and environmentally friendly "multi-extrusion coating" plant.

This innovative production system allows the TPO/FPO synthetic matrix to be applied directly and at the same time to both faces of the polyester mesh carrier in one go, thus ensuring that it is incorporated perfectly in the membrane's structure.

This special production process means MAPEPLAN T M membranes are not prone to delamination problems, as they qualify as single-ply membranes that offer excellent resistance to foreseeable (physical, chemical, thermal) stress.

Plasticizer-free formulation

MAPEPLAN T M is an innovative waterproofing membrane formulated without plasticizers or volatile substances.

Built-in flexibility

The MAPEPLAN T M membrane gets its flexibility from the special chemical structure of its polymer component: the element that makes it so flexible is in the molecular chain and is "chemically bonded" to it.

This chemical bond is very strong and difficult to separate, which makes the membrane's inherent qualities last longer, with higher resistance to aggressive substances, as well as improved weathering resistance and resistance to microorganisms and bacteria.

Dimensional stability

Dimensional stability is ensured by the internal polyester mesh carrier and by the "multi-extrusion coating" production process.

Highly eco-friendly with low environmental impact

MAPEPLAN T M has impressive green credentials since it is free from plasticizers and volatile substances and does not contain substances that are dangerous or harmful to people or the environment.

The modern and technologically advanced production system has been designed and built to deliver the lowest possible environmental impact. This low environmental impact is guaranteed during all stages of the membrane's life cycle: manufacture, transport, installation, service life, end-of-life disposal.

Once the waterproofing membrane reaches the end of its life cycle, it can be removed and recycled/reused to produce new raw material.

Smart White surface colouring - signal layer

MAPEPLAN T M has a special white top layer, which gives the product its excellent solar reflectivity and reduces roof surface temperature by over 50% compared to a dark/black-coloured roof, which has clear benefits in terms of comfort due to the building's lower indoor temperature.

The different colour on the membrane's surface also has the advantage of acting as a signal layer, highlighting any accidental mechanical damage or surface scratching resulting from works carried out once the membrane has been laid.

Thermally welded seams

The MAPEPLAN T M waterproofing membranes are thermoplastic plastomers, which means they have excellent weldability properties and are thermal welded with hot air. This welding method effectively fuses and bonds together the molecular chains: the welded MAPEPLAN T M membrane's seams withstand the pressure of the water and are mechanically strong.

Mapeplan®

Roofing and Waterproofing
Synthetic Membranes

POLYGLASS
presents the roofing
and waterproofing
synthetic membranes
in **PVC-P** and **TPO/FPO**
Mapeplan®



Adds value!



Polyglass SpA
is member of
Green Building Council Italia





Mapei in Sassuolo

The deep roots of a bond that is being strengthened

For Mapei, talking about Sassuolo does not just mean talking about the football team that won promotion to play in this season's Italian first division. Mapei's highly successful sponsorship of the 'green-and-blacks' is unquestionably the most striking and eye-catching aspect of very close ties between the company and the territory surrounding the city of Sassuolo in Central Italy. This is a very special relationship that happened to coincide with the growth of both, whose origins date back to the post-war period with the industrial development of ceramic tiles and the setting up of a district for the ceramics industry in the foothills between the provinces of Modena and Reggio Emilia. The centre of the ceramics district

- one of the world's leading manufacturing centres for ceramic tiles worldwide, that accounts for 80% of Italian national output - is located between Sassuolo and Fiorano Modenese, where the local ceramics industry was originally established. Starting in the 1960's, industrial growth gradually extended towards the towns and villages of Fiorano Modenese, Formigine, Maranello and Castelvetro in the province of Modena and Scandiano, Casalgrande and Rubiera in the province of Reggio Emilia. The constant boom in production resulted in the district spreading to such an extent that it now encompasses the provinces of Modena and Reggio Emilia.

The district expanded at a startling rate

during the post-war period, not just in terms of its speed of growth but, above all, as regards the excellence of the results it attained. This rapid growth was backed up by extremely high domestic demand, due to a great boom in the Italian building industry and the rise in demand for building materials for post-war reconstruction purposes. It was also helped along by the growth and spread of Italian suburban areas around major cities.

Mapei's own gradual and systematic rise within the framework of this constant growth began at the end of the 1960's, when the company started working with manufacturers in the ceramics district of Sassuolo. Ties that gradually grew

Close ties with the surrounding territory



LEFT. The old terracotta tile floors in Palazzo Ducale in Sassuolo have been renovated with Mapei's help.

ABOVE. San Francesco in Rocca church, one of the city's most beautiful monuments, has been renovated with Mapei's help.

stronger as each year went by and that is based on successful and highly significant innovation. Ceramic tiles used to be installed using sand and cement and Mapei was one of the first companies to change this process by introducing the use of adhesives and grouts. Ceramics can be installed much better using adhesives, which were first introduced in Italy the 1960's, although the real turning point came the following decade.

The success and internationalisation of ceramic tiles, partly thanks to the idea of creating tiles bearing the hallmark of leading designers, helped make adhesives more popular and vice versa. Adhesives turn out to be just as important as the quality of the ceramics, when it comes to modernising a shopping mall or airport.

Mapei grew very quickly down the years both in Italy and all over the world until it became the world's leading manufacturer of adhesives and complementary products for laying all kinds of floor and wall coverings. Growth, which, as time has passed, has been extended to include other chemical products for the building industry, such as waterproofing agents, special mortars and admixtures for concrete, as well as products for renovating and restoring historical buildings.

Mapei warehouse in Sassuolo

Mapei has always had, and still has, very close and active ties with the city of Sassuolo and the ceramics district. As well as the sponsorship of the Sassuolo football team, Mapei's commitment to the local territory has always encompassed a wide range of projects and enterprises aimed at conserving its history and culture, such as restoring famous monuments or historical buildings. Of all the various ex-

amples of concrete, practical support, it is worth remembering the restructuring of the terracotta tile floors of Palazzo Ducale, without forgetting the renovation work on San Francesco in Rocca church, one of the city's most beautiful monuments. As regards the industrialisation of the surrounding territory, Mapei has grown together with Sassuolo, partly thanks to its indispensable installation products used on building sites both in Italy and abroad, but also due to its physical ties with this area. The first warehouse opened in Sassuolo in April 1987, thanks to the entrepreneurial spirit of Gino Munarini, the company's first agent. Today that warehouse, which has become so important to the Group down the years, is run by his daughter Camilla, who is continuing the family tradition of working with Mapei.

The Munarini family's third generation is now working out in the field in the persons of Carlo Alberto Rossi and Claudia – the children of Camilla Munarini and Carlo Rossi, the President of Sassuolo Calcio - who, with the support of his children, is the head of Mapei operations for the Bologna, Modena, Reggio Emilia and Parma area.

Having recently been renovated and extended - as we can see on the following pages - the Sassuolo warehouse is an important facility for the distribution of Mapei products in central and northern Italy. Trucks coming mainly from Triveneto, Tuscany, Marches, Liguria and, of course, Emilia Romagna areas, have the chance to stock up on the entire range of Mapei products here at the warehouse.

It is one of the biggest Mapei warehouses in the world and covers a surface area of over 3000 m². It sends out 60,000 tons of products each year. Every year it man-



OPPOSITE PAGE. The Mapei headquarters in Sassuolo.

ABOVE. The Mapei warehouse in Sassuolo is one of the biggest Mapei warehouses in the world.

ages over 30,000 orders/customer. For example, the colouring service for wall coatings has handled over 65,000 kg of products (figure as of 2013).

The number of projects handled over each year is over 1,800 and the strong point of the Mapei Logistics Centre in Sassuolo is its speed, efficiency and capacity in sending out all the orders in real time.



LEFT. The main square in Sassuolo after the local football team was promoted to the Italian first division.

OPPOSITE. Giorgio Squinzi President of the Mapei Group, with Carlo Rossi, President of Sassuolo football team and head of the Mapei operations for the Bologna, Modena, Reggio Emilia and Parma area.



Mapei logistics and sales offices in Sassuolo

Multifunctional spaces in the building that is now home for the Mapei sales and logistics offices, the warehouse and the Sassuolo Calcio new headquarters

Mapei offices and warehouse area in Sassuolo were recently completely renovated. This major maintenance intervention included rationalising the existing spaces to make the warehouse area more functional and create space for additional activities and a larger workforce. And this new, modern area is also where the offices of Sassuolo Calcio football club have been transferred, from their historic headquarters in Piazza Risorgimento in Sassuolo. This new, larger home also demonstrates the Company's commitment to development by investing in an area of Italy with which it has always had a strong bond. Indeed, Sassuolo is one of the most important hub for the Italian ceramic industry.

Rather than drastically change the building itself, the aim of the interven-

tion was to carry out improvements to the technology used and to upgrade the plant equipment, utilities and materials. Maintenance work was carried out on the main west-facing façade and all its openings towards the outside, without modifying the dimensions of the pavement and parking areas, and an access ramp for the disabled was added. A new entrance was created in the north-facing façade on the loading and unloading side of the building to make it easier to carry out all the activities regarding the storage of products and materials. A new waiting area was created for drivers as well as an entrance to the area where all the administration work is carried out. To make it easier to move between the various areas of the building (stores and offices), and to bring the building in line with Italian current norms and stand-

ards, particularly regarding access for the disabled, a lift was also installed.

Ground floor and first floor offices

After carrying out all the necessary preparation work on the substrate in the area on the ground floor to be used as offices, which involved using TOPCEM PRONTO ready-to-use, normal-setting, controlled-shrinkage mortar, a new flooring was made in the entrance area by applying ULTRATOP LIVING self-levelling, ultra rapid-setting mortar made from special hydraulic binders, for flooring resistant to abrasion.

The surface was then treated with MAPEFLOOR FINISH 55, a two-component, highly flexible, aliphatic polyurethane finish resistant to wear and ultraviolet rays.

The walls were rendered with MALTA



BASTARDA mortar manufactured by Mapei's subsidiary VA.GA and then painted, along with the ceilings, with DURSILITE washable, acrylic resin-based paint in water dispersion with selected charges.

The flooring chosen for the offices and bathrooms was pre-finished wooden floor bonded in place with ULTRABOND P990 1K, an one-component, ready-to-use, elastic polyurethane adhesive with no solvents.

The mosaic in the bathrooms was installed with ADESILEX P10 high performance cementitious adhesive with extended open time and no vertical slip, while for the final grouting operations KERAPOXY DESIGN was used, a two-component, anti-acid decorative mortar available in 15 different colours.

A particularly attractive "ribbed effect" finish was chosen for the end wall in the reception area, as well as for the dividing walls in the offices on the first floor that are now the new home of Sassuolo Calcio football club. These surfaces were treated with ELASTORAPID two-component, high performance, highly deformable cementitious adhesive, to which LATEX PLUS latex was added to

further improve its already excellent deformation properties.

The final finishing operations were carried out by applying ELASTOCOLOR PAINT flexible, protective and decorative acrylic resin-based paint in water dispersion for concrete and renders.

The screed for the new access ramp for the disabled was made from TOPCEM PRONTO and was waterproofed with MAPELASTIC. After spreading on a layer of MAPELASTIC GUARD two-component elastic cementitious mortar used to protect large concrete constructions subjected to high stress, stone covering was installed using ELASTORAPID quick-setting and drying cementitious adhesive with no vertical slip.

KERACOLOR GG high-performance polymer-modified cementitious mortar for joints from 4 to 15 mm wide was used to carry out the final grouting operations.

Warehouse

New porcelain tile flooring was installed in the warehouse area by overlaying it on the existing flooring. The first step was to apply a bonding slurry made from PLANICRETE on the existing floor-

IN THE FACING PAGE. The entrance to the new Sassuolo Calcio headquarters.

ABOVE. The new offices for Mapei and the Sassuolo Calcio football club in Sassuolo. Pre-finished parquet flooring was installed with ULTRABOND P990 1K.

IN THE SPOTLIGHT ULTRATOP LIVING

It is a self-levelling product in powder and is available in light grey, white, anthracite and natural. Thanks to its high mechanical strength, abrasion resistance and aesthetical appearance, ULTRATOP LIVING is suitable for numerous applications in the decorating sector of building for civil use: public, private, commercial and residential. It is used to create smooth, flat, finished floors from 5 to 15 mm thick in civil environments on both new substrates and existing concrete or ceramic tile floors to make them resistant to pedestrian traffic in shopping malls, hotels, offices, shops, showrooms, apartments, etc.

It can contribute up to **2 points** to obtain the **LEED** certification.

TEAMWORK



ABOVE. The Mapei warehouse in Sassuolo.
LEFT. New porcelain tile flooring was installed using KERAFLEX MAXI S1 in the service areas in the warehouse.

ing. This latex rubber product was used to improve the adhesion of TOPCEM PRONTO which was used to build the screed. The new porcelain tile flooring was installed with KERAFLEX MAXI S1 high-performance cementitious adhesive with extended open time and no vertical slip for ceramic tiles and stone. The tile joints were then grouted with ULTRACOLOR PLUS high-performance, anti-efflorescence, polymer-modified mortar. The walls were patched up with PLANITOP SMOOTH & REPAIR and PLANITOP FAST 330, while the walls themselves were skimmed with PLANITOP 517, a coarse-textured lime-cement skimming

mortar with a natural finish. KERAFLEX MAXI S1 adhesive and ULTRACOLOR PLUS grout were also used to install the porcelain tiles on the walls. EPORIP epoxy adhesive was used for the construction joints and to seal the screeds, while MAPESIL AC solvent-free, pure silicone sealant with a low modulus of elasticity was used to seal the expansion joints in floors. The new dividing walls in the rooms were made from GASBETON autoclaved aerated concrete treated with PRIMER G synthetic resin-based primer in water dispersion to improve adhesion. POROCOL FF one-component, fine-grained white cementitious mortar was used to render the treated surfaces. These surfaces were then reinforced with MAPENET 150 alkali-resistant glass fibre mesh. The walls and ceilings were painted with DURSILITE. LAMPOCEM ready-to-use, rapid-setting and hardening, anti-shrinkage hydraulic binder was used for rapid fixing operations, while MAPEFIX EP 385 pure epoxy, resin-based chemical anchor for structural loads was used for anchoring the lift's base plates. The substrates in the showers and service areas were waterproofed with MAPELASTIC, while MAPEBAND alkali-resistant rubber tape with felt for cementitious and liquid-based waterproofing membranes was used to seal and waterproof corners and joints.

Technical Data

Mapei Warehouse, Logistics and Sales Offices and Sassuolo Calcio

Headquarters, Sassuolo (Italy)

Year of Construction: 1979

Year of Intervention: 2013

Intervention by Mapei: laying porcelain tile flooring; repairing and rebuilding floor substrates; treating and finishing walls; fixing and anchoring; waterproofing substrates; laying resin floorings; laying wooden floors; coating and finishing walls; laying mosaics and stone materials; sealing screeds and floors

Client: Mapei SpA and Sassuolo Calcio

Project: Marco Manzoni and Tecne Engineering Srl

Building Company: Edilteco Srl

Laying Company: Giacobazzi & C. Srl

Mapei Co-ordinators: Marco Manzoni and Carlo Rossi, Mapei SpA (Italy)

Mapei Products

In the warehouse:

Repairing and rebuilding screeds: Planicrete, Topcem Pronto

Laying porcelain tiles: Keraflex Maxi S1, Ultracolor Plus

Skimming walls: Planitop Smooth & Repair, Planitop Fast 330, Planitop 517

Sealing screeds and expansion joints: Eporip, Mapesil AC

Treating, rendering and finishing the dividing walls: Primer G, Porocol FF, Mapenet 150, Dursilite

Rapid fixing and anchoring: Lampocem, Mapefix EP 385

Waterproofing the substrates: Mapelastac Aquadefense, Mapeband, Mapelastac Guard

In the offices:

Laying resin floors: Ultratop Living, Mapefloor Finish 55

Rendering and finishing walls: Malta Bastarda by VA.GA, Dursilite

Laying wooden floors: Ultrabond P990 1K

Laying mosaics: Adesilex P10, Kerapoxy Design

Decorating the reception walls: Elastorapid, Latex Plus, Elastocolor

Building and waterproofing the screeds:

Topcem Pronto, Mapelastac, Mapelastac Guard

Laying natural stone: Elastorapid, Keracolor GG

For further information see www.mapei.com and www.mapei.it

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DUST

Keraflex Maxi S1

From the Mapei Laboratory experience innovative technology: "LOW DUST" -90% dust during mixing, application and use compared with traditional Mapei cementitious adhesives.

- Especially suitable for laying large-format tiles
- Highly deformable
- No vertical slip
- Extended open time
- LOW DUST technology



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10 YEARS TOGETHER AT MAPEI DAY - 2005/2014



MAPEI DAY 2014



Sport, friendship and plenty of solidarity

It takes determination and passion to climb the highest peaks. But when you do it among friends then enthusiasm prevails over fatigue. Mapei Day 2014 will be the 10th anniversary of an international festival of sport and a sharing of the most deeply felt Mapei corporate values, such as teamwork, solidarity and attention to human resources. All factors that cancel out any differences between people and the company. Mapei Day 2014 will be taking place, as usual, during the central weekend of July in an Alpine location of unparalleled beauty almost anywhere in the world: Bormio in the Stelvio National Park, Northern Italy. Plenty of sport but also lots of solidarity. Everybody taking part in this year's edition will once again get the chance to combine the pleasure of a sporting challenge with the possibility of helping children and young kids who are struggling by backing projects that will help younger generations have a peaceful and stimulating future. Mapei has always been committed to this kind of enterprise through its donations, activities and associations operating on both a national and international level, all aimed at promoting the social inclusion of disadvantaged people. A corporate value that is so deeply felt that it has been included in Mapei Day ever since the first edition back in 2005. Over the 10 years of this event it has supported the following associations: Archè, Piccola Opera di Traona, Exodus and Una.

Donating is good for you

Anybody who has done it knows it is true: donating is good for you, both for those who receive and those who give. To join in the "Mapei Day 2014: è grande aiutare i più piccoli (it is big to help little ones)" project, just make a donation directly to one of the associations Archè, Piccola Opera di

Traona, Exodus and Una, which carry out charitable work on various different fronts. The Casa Don Guanella community in Lecco (Italy) will also be included for the first time this year. So let's get to know these associations better.

► **Archè** and its team of volunteers help minors with serious problems: young children who are HIV-positive or suffer from psychic or social ailments. It carries out projects in Milan, Rome, San Benedetto del Tronto, Kisii (Kenya) and Chikuni (Zambia).

► **Piccola Opera di Traona** offers housing-educational resources for young children and the mothers of young children who are struggling. The Association provides housing and an emergency accommodation service.

► **The Exodus Foundation** is involved in communications and education programs for juveniles and young people. Based on an educational approach, it works on prevention and caring for people with drug addictions and other serious issues. It has its own residential communities, guidance and accommodation centres and a telematic service.

► **Una** brings together parents of children who have had to be recovered in Paediatric Oncology Units. It provides social and socio-health assistance to improve how children are cared for and looked after and also to provide the families of sick children with moral and material aid.

► **Casa Don Guanella** in Lecco is an educational community currently caring for about 60 babies and young children with serious problems. Its "action pedagogy" programme includes a number of workshops offering both opportunities for growth and emancipation and also the chance to share experiences and learn about old-fashioned trades and professions.



MAPEI DAY 2014

SUNDAY 13th JULY
BORMIO - STELVIO PASS



PROGRAMME

- 8.40 a.m. Ski Roll Race** (for members only)
- 8.50 a.m. Half Marathon** (for FIDAL's and sport promotion institutions' members only)
- 9.00 a.m. Running Event open to all**
- 9.15 a.m. Re Stelvio - Mapei Competitive Cycling Race 30th edition** (for FCI's and Italian National Cycling Commission's members only)
Start for the Female Cycle Race

Afterwards, start for participants **by bike and with proper jersey**
- 9.30 a.m. Re Stelvio - Mapei Competitive Cycling Race 30th edition** (for FCI's and Italian National Cycling Commission' members only)
Start for the Male Cycle Race

Afterwards, start for participants in the **"Aldo Sassi" Memorial Bike Ride** (for all those interested, alongside champions of the former Mapei Professional Cycling Team and other sport VIPs)
- 2.00 p.m. Timelimit for all participants**
- 4.00 p.m. Prize-giving Ceremony** in Piazza Kuerc in Bormio

A free training schedule for runners and cyclists is available from: www.mapeisport.it



ENTRIES

from **1st April to 10th July** at the web sites:
www.winningtimesportservices.com, www.usbormiese.com,
www.popso.it, or else at the Unione Sportiva Bormiese
Headquarters, via Manzoni - Bormio.
Maximum amount of entries: 3,000

Entry fee: 25 Euros, for entries from 1st April to 30th June;
40 euros for entries from 1st June to 10th July.

The fee includes:

- **Mapei Day 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 both bicycles and athletes)
- Mapei Day medal
- Photo and race certificate (both available and downloadable at www.mapeiday.com)
- Personal race time of the athletes (Winning Time)

N.B. FREE ENTRY on the website www.mapeiday.com for Mapei customers using their customer code and for readers of *Realtà Mapei* using their *Realtà Mapei* code

COURSE

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)
From 2.00 p.m. a shuttle bus service will be available from the Stelvio Pass to Bormio.

HOTEL INFORMATION

Associazione Albergatori Bormio
phone: +39 0342 902765 - info@hotelsbormio.it
www.hotelsbormio.it

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Ultralite S1, Ultralite S1 Quick, Ultralite S2, Ultralite S2 Quick: a line of **lightweight** cementitious adhesives with extraordinary performance features for all types of ceramic tiles.

- 60% to 80% higher yield
- Improved workability, less tiring to apply
- Quicker application
- Excellent wetting properties
- Highly deformable (Class S1 - S2)
- Contain more than 20% of recycled materials
- Lighter bags: just 15 kg
- Packaging with handles for easier handling



25 kg **just 15 kg!**

Product info



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It is available at official Mapei distributors

