INTERNATIONAL

Realtà MAPEI

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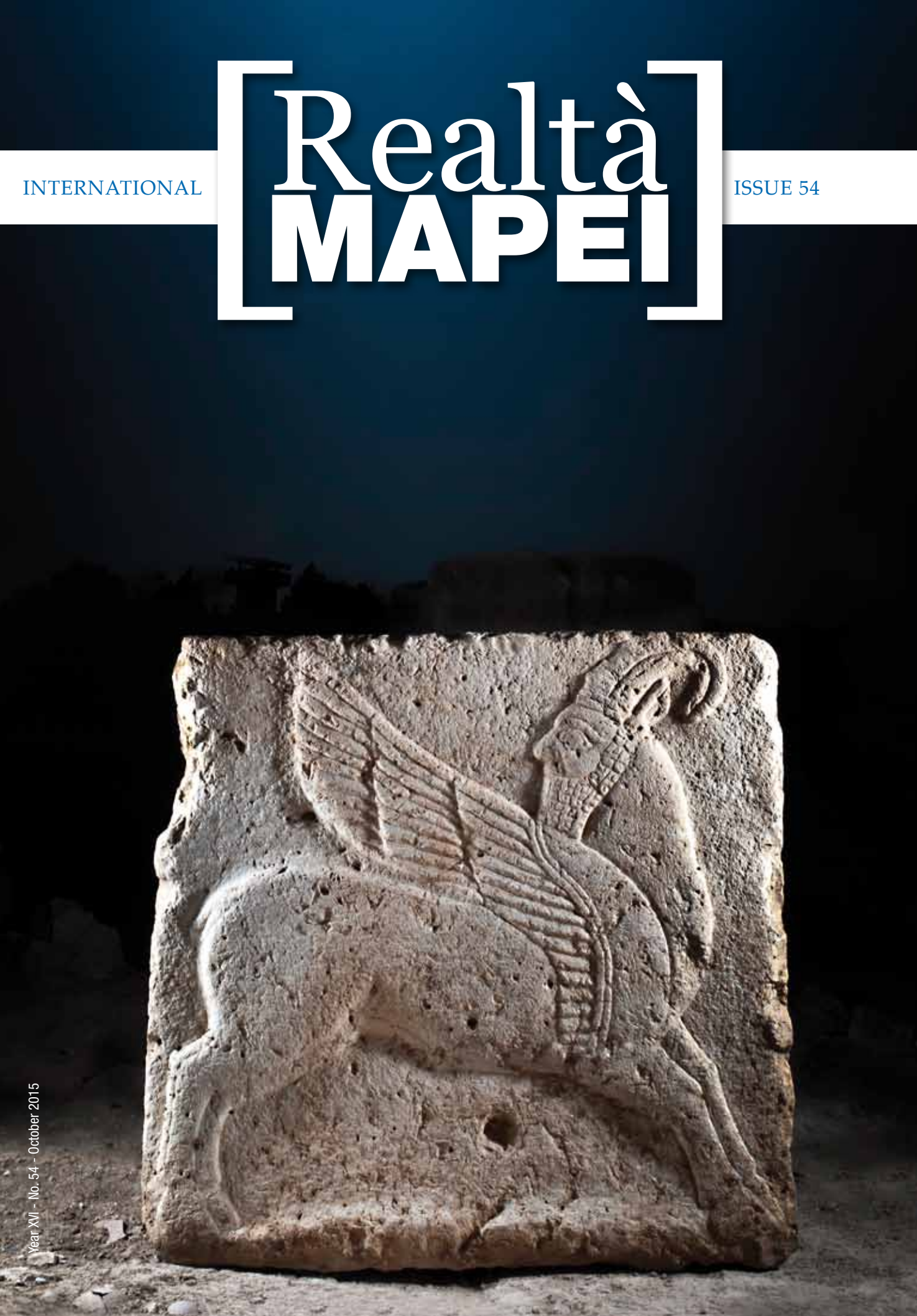

Year XVI - No. 54 - October 2015

HANDS AND MINDS: UNITED TO MANAGE RATHER THAN ENDURE CHANGES

Giorgio Squinzi
CEO of the Mapei Group

For Mapei the last few years operating on the Italian market have been difficult, but fortunately the Group has managed to maintain its growth trend on the global market by commissioning new production facilities and operating the existing ones more efficiently. The results have been positive across the board and for all our product lines. The overall growth was good and, if we take into consideration the exchange rate, which penalised us by an estimated 1.3%, this result would certainly have been even better.

Mapei Group, which historically has always been synonymous with the ceramics and resilient sectors, is currently going through a period of considerable growth in the construction sector in general, offering 15 product lines ranging from admixtures for concrete to waterproofing systems and from finishing products to insulating systems, making it the ideal commercial partner in the construction field, from the smallest site to the largest of projects.

Investment into Research and Development work to create new products and technologies is targeted at meeting the requirements of every market in which we operate, and where our ambition is to be the leader, directing our efforts on excellence to offer, everywhere, only products of the highest quality. Mapei operates on all 5 continents and, in the future, we plan to expand in those areas where our presence is still limited. A seemingly simplistic vision of the future, but one which must be in line with the fundamental principle of our Company: to welcome every opportunity we are presented with and turn it into sound, sustainable growth. We aim at being one step ahead of the market requirements for every country in the world by offering the most technologically advanced products.

Our focus is not only on those areas with strong growth; our leadership is also strengthened on the markets where Mapei already has a consolidated position. Constant attention to the needs of our clients, the market and new technologies are behind the vast experience of Mapei Group to maintain our strategy of medium to long-term growth.

The rewards we reap are also thanks to the enormous effort and financial investment we dedicate to Research and Development (around 5% of our turnover). Products developed to reduce energy consumption and VOC (volatile organic compound) emissions, that are safe for the environment, for our production staff, for those who use and apply them and for those who use the areas in which they have been applied. And our commitment to safeguard the environment and to health and safety is also expressed in the way we operate on a daily basis, leading us to building new production facilities using locally-sourced, eco-sustainable materials.

Italy is holding its own thanks to those who, like Mapei, have carried out research and innovation on a local basis, because industry is a vehicle for modernisation, one that reaches out towards the future, including in social relations and interaction. For us at Mapei, human capital forms the basis of every form of development possible. Creativity, autonomy, the capacity to unite hands and minds, the desire to innovate, a sense of vision which allows us to manage rather than endure changes; these are just a few of the characteristics that distinguish the men and women that form the great World of Mapei. And with their talent and personality, and their passion and determination, we can carry on looking to the future with faith.

Giorgio Squinzi

SUMMARY

MAPEI

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COVER STORY
An orthostate found in the archaeological site of Karkemish in Turkey. Mapei contributed to the strengthening of ancient structures in this archaeological site by providing products and technologies.

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"Responsible Care" is the world chemical industry's voluntary program based on implementing principles and lines of action concerning staff health and environmental protection.

GLOBAL SUSTAINABILITY, SAFETY AND TRANSPARENCY

CLP (CLASSIFICATION, LABELLING AND PACKAGING) REGULATIONS FOR SUBSTANCES AND MIXTURES BECAME OBLIGATORY FROM 1ST JUNE 2015

Faithful to the declared principle of communicating only the truth, Mapei doesn't make easy promises, but rather provides answers that are the fruit of its experience matured over the years on building sites all around the world. Products and solutions that offer a concrete assurance of increased durability and that help save materials and energy.

But that's not all. Mapei, which has always been committed to improving and promptly updating information regarding the correct and safe use of its products, started implementing the CLP (Classification, Labelling and Packaging) Regulations in 2014 in the firm belief that new, more detailed information is beneficial to clients and users in terms of health and safety in the workplace and safeguarding the environment.

CLP is the new European Regulation (EC) No. 1272/2008 regarding the classification, labelling and packaging of substances and mixtures (blends of more than one substance). The aim of this regulation is to guarantee that the inherent risks of chemical products are clearly identified and communicated to workers and consumers within the European Union by means of an unified classification

✔ **EXAMPLES OF NEW PICTOGRAMS**

FLAMMABLE | CORROSIVE | ENVIRONMENTALLY DAMAGING | HEALTH HAZARD | LESS SERIOUS HEALTH HAZARDS

✔ **THE CHANGES FOR PACKAGING**

ONCE **NOW**

CLP
Classification, Labelling and Packaging

✔ **HAZARD STATEMENTS AND PRECAUTIONARY STATEMENTS**

Hazard statements
- H letter + three figure number code

Precautionary statements
- P letter + three figure number code
- 4 categories (prevention, response, storage, and disposal)

Additional codes for EU standards (no GHS)
- EU + three figure number (0+ R-phrase number)

and labelling system.
The Regulation entered into force on the 1st of June 2015 and, as of that date, all products marketed by Mapei on the European market comply with the Regulation and, if they are hazardous, include one of the new symbols or H and P (Hazard and Precaution) phrases. Prior to this deadline, all the packaging, safety instructions contained in Technical Data Sheets and, of course, the Safety Data Sheets (SDS) of all Mapei products marketed in Europe were updated. Particularly noteworthy is the fact that over 47,000 different Safety Data Sheets in the various languages were updated.
Updated versions of the Safety Data Sheets are available at Mapei SpA websites and from all configured websites of the Group's subsidiaries. The Group has also started to send out updated SDS's to all Mapei SpA clients and this process is being extended to all Mapei subsidiaries.

CLP TO PROTECT THE HEALTH OF MANKIND AND THE ENVIRONMENT

The aim of the CLP Regulation is to harmonise the criteria used to classify substances and mixtures and the standards used for their packaging to guarantee a high level of safety for the health of mankind and the environment. It also promotes free circulation of chemical substances and mixtures to strengthen competitiveness and innovation.
The aim is also to identify which properties of a substance or mixture need to be classified as hazardous so that their risks are clearly identified and made visible. These properties include physical hazards that are a potential safety risk, hazards that represent a risk to a person's health and hazards that represent a risk to the environment, including the ozone layer. The aim of the CLP Regulation is also to protect animals and reduce the number of experiments carried out on animals to a minimum. In fact, experiments may only be carried out on animals if results are not available from any other source or if there is no other viable testing method available that would provide reliable, quality results.

GLOBAL HARMONISATION OF CLASSIFICATION AND LABELLING CRITERIA

The CLP Regulation is the European version of GHS-ONU (Globally Harmonized System of Classification and Labelling of Chemicals). The purpose of GHS is to harmonise the classification and labelling of chemical products all over the world in order to overcome communication problems between different geographical areas; for example, the criteria and labelling currently adopted for the same substance may vary between, for example, the USA, Europe or China.
In fact, the CLP Regulation has partially adopted the same classification and labelling criteria and the same symbols and warning messages used for the global GHS system.
In order to facilitate use of the GHS system in different countries and in different areas of industry, a building block approach has been adopted so that the hazard classes and categories system may be introduced partially: the principle of harmonisation is that the same elements are adopted by everybody, even if each and every one of them are not fully transposed.
Therefore, even though products imported from non-EU countries may have some labelling elements in common, they may not all comply with CLP Regulations regarding the classification and labelling of substances and mixtures, in that the level of implementation of the GHS system in the country of origin may differ.
The CLP Regulation, therefore, is based on the GHS-ONU system while maintaining a certain level of continuity with previous European norms, in that they take into account the operational methods and main procedures of regulations such as the past directives on dangerous substances and mixtures, which have now been superseded.
In line with its corporate mission, Mapei wants to be a leader in the chemicals industry in this field too. Because it is only by acting concretely and rapidly that you become truly global.

AIM TO BE GREAT

2015 ASSEMBLY OF THE CONFEDERATION OF THE ITALIAN MANUFACTURING AND SERVICE COMPANIES AT THE EXPO MILANO 2015 AUDITORIUM

The Annual Assembly of the Confederation of the Italian Manufacturing and Service Companies was held at Expo Milano 2015 on 28th May, moving for the first time from its usual location in Rome, in order to focus on a major event that might well help relaunch Italy. "We believed in the Milan Expo right from the beginning". These are the words with which the President of the Confederation, Giorgio Squinzi, began his speech at the meeting, because here "you can really feel all the enthusiasm and excitement that Italy needs if it is to leave behind a lengthy period of recession and demotivation". An event which, as the leader of the Italian industrialists pointed out, "is the best possible symbol for a new start and the millions of foreign visitors coming to Italy are restoring that confidence in ourselves that we seemed to have lost over recent times".

Amongst those present at the Expo Auditorium were the Italian Minister of Economic Development, Federica Guidi, the President of Expo 2015 SpA and General Commissioner for the Italian Pavilion, Diana Bracco, and the Commissioner of the Government of Italy for Expo Milano 2015, Giuseppe Sala.

The President of the Italian Republic, Sergio Mattarella, greeted the industrialists by pointing out that "restoring economic growth calls for a great effort in terms of innovation and investments (things in which Italy still lags behind other industrialised nations), in order to keep up with the latest technology, bring out the very best in people and support competition".

Giorgio Squinzi reinforced this message in his own speech, warning about the slender line between low growth and stagnation: a delicate period in which "the seeds of change that can now be seen need to be nurtured and protected, encouraged to grow by a system sure of its own values and up with the times in terms of its technical structure".

THE PIVOTAL ROLE OF INDUSTRY

The President of Confindustria reiterated the pivotal role of industry, particularly small and medium-sized businesses. "The key to turning things around in Italy", these companies which "are making changes on the move" have "everything required for bringing about change and strengthening Italy's role as a manufacturing hub". "We have between 15-20,000 small and medium-sized companies that export, produce innovation, search for financial backing for industrial growth, incorporate information technology and products, hire talented young people and speak the languages of global business", so Squinzi claimed, "this is where we must create our new pocket-sized multinationals and great champions of industry over coming years".

The guiding thread behind his thoughts is, as always, the idea of placing industry at the focus of attention as the driving force behind growth. Industrial policy is once again at the focus of government agendas: "The political and economic worlds seem to realise that manufacturing, not speculation, is the only reasonable way to attain ongoing growth". In his speech he refused to force the Italian government's hand: "I have no intention of complaining or making demands to the government, the only thing I would like to say - so he added – is to remain steadfast and determined, because

ABOVE. The Italian Minister of Economic Development, Federica Guidi.
RIGHT. From left on: the Italian Minister of Environment Gian Luca Galletti, Federica Guidi, Giorgio Squinzi and Antonio Patuelli, President of ABI (Italian Banks Association).
BELOW. Giorgio Squinzi holding his speech.

this is the necessary and indispensable premise for change in our country and also because there is a lot of extremely tricky work to be done. The market needs to be freed from monopolies and the excessive presence of the public sector in the services industry that needs to open up to competition".
Something of some consequence is starting to happen, so Squinzi said. Several reforms have been planned and set underway thanks also to the efforts of Confindustria, "although taxation levels are still intolerable, a real obstacle to new investments and lasting growth".

FIGHTING THE ANTI-INDUSTRIAL MENTALITY

The underlying concern that Squinzi focused on is a certain anti-industrial mentality that is so deeply entrenched and which will be "the hardest thing of all to reform".
According to the President of Confindustria, companies should be considered part of the "national heritage". In Italy, so he added, every new enterprise inevitably has some committee against it and "this cannot be solved by law, simplification will come by adopting a different kind of mentality and collective behaviour".

TRADE UNIONS RELATIONS

As well as the Italian government's determination to get things done, Squinzi also addressed the Italian trade unions, expressing his wish that more modern industrial relations might be forthcoming. The employment market is being reformed along the right lines, but if domestic demand is not triggered off again, then it will be hard to create jobs. The unions have a quite different take on the reform, but everybody agrees that making full-time employment more convenient will certainly be to everybody's benefit and introduce greater stability onto the jobs market.
"Salaries and productivity must be more closely and strongly tied" and national contracts must move hand-in-hand with this kind of change, preventing these separate issues from being lumped together. The issue of welfare also needs to be studied more closely, as it is "the most challenging aspect of modern industrial relations".

A HEARTLESS, SOULLESS EUROPE

Outside the national borders, it is Europe that needs to change because "it is slow, cumbersome and divided". The only institution attempting to relaunch the economy is Mario Draghi's ECB. "But the ECB cannot take the place of the Union of States".
Europe "has no heart and soul. I do not like the way Europe is at the moment. It has become the continent of low growth, hanging onto excessive rigour". "The terrain on which a real Union will be formed allowing one single currency to hold sway is that of employment and growth based around a common project".
According to Squinzi, Italy has the credentials to be a key player in this new era and Italian businesses are ready with "proposals to meet the challenges".

INTERMEDIARY BODIES

Against this general backdrop, Squinzi underlined his support to the role played by intermediary bodies: "in an age in which commercial, political and cultural barriers are collapsing, the ability to read complex phenomena in our economy and society, expertise in interacting with institutions and representing complex bodies, still is (and will increasingly be)

FROM LEFT ON. Marcella Panucci, Director General of Confindustria; Lisa Ferrarini, Vice President for Europe of Confindustria; Valeria Fedeli, Vice President of the Senate of the Italian Republic.

ABOVE. Giorgio Squinzi and Emma Marcegaglia, Past President of Confindustria.

ABOVE. Diana Bracco, Confindustria's Vice President for Research and Innovation.

ABOVE. Gianfelice Rocca, President of Assolombarda (Association of Lombardy Region companies), Roberto Maroni, President of the Lombardy Region and Giorgio Squinzi.

a decisive aspect of associationism and the modern democratic process".
"The heart of democracy – so Squinzi stated - is to listen, discuss, participate, voice one's own ideas and fight for them, and then decide; associating together freely lies at the very foundations of democratic life, the highest expression of plural, participated societies".

FEARLESSLY INTO THE FUTURE

"Italy has the chance to influence global political discourse: this is something that must not be underestimated". Quoting what the Nobel Prize-winner Amartya Sen had to say just some times ago in Milan, Squinzi encouraged everybody "to be ambitious and not be afraid to let our thoughts run free".
"There are now - so Squinzi continued - signs of a recovery, inklings of growth, reforms under way, young people who now believe they have a future in Italy, business people committed to engaging in democracy and developing our world". "The encouraging signs I can see consoled me about the work I have done over these last three years

THE FACTORY OF ITALIAN TASTE

Confindustria (the Confederation of the Italian Manufacturing and Service Companies) is sponsoring the "FabFood" exhibition being held in the Italian Pavilion at Expo 2015.
The idea is to show visitors that it is possible to obtain safe, high-quality food products at reasonable prices and in sufficient quantities for everybody, while respecting the environment and the world's resources, thanks to this particular industry and its technology.
The project, organised by the Leonardo

as President of Confindustria; I tried to make a contribution, perhaps only a small one, to the workings of a more modern and business oriented country".

"Business - so the President concluded - must be left free to operate in the name of constant innovation and sustainable growth; business that is a key element of an open society built around rights and shared responsibility, founded on commitment and merit, business capable of guaranteeing quality jobs for the planet's future generations".

GENERAL ASSEMBLY OF CONFINDUSTRIA CERAMICA

Vittorio Borelli was reconfirmed as President of Confindustria Ceramica (the Association of Italian ceramic tiles and refractory materials manufacturers) for his second consecutive term in office after receiving 100% of the votes cast at the General Assembly of the Association held on 9th June.
The Board of Directors was also elected during this same meeting. The "little Parliament" of the Italian ceramics manufacturing industry for this forthcoming period in office will be composed as follows: Loriano Bocini (Industrie Bitossi), Stefano Bolognesi (Cooperativa Ceramica d'Imola), Claudia Bressan Boschini (Ancap), Alberto Camossi (Dolomite Franchi), Roberto Fabbri (Abk Group Industrie Ceramiche), Dilvanna Gambini (Gambini Group Industrie Ceramiche), Lauro Giacobazzi (Rondine), Leonardo Levoni (Elios Ceramica), Andrea Ligabue (Etruria Design), Ennio Manuzzi (Ceramica Sant'Agostino), Luca Mussini (Ceramiche Atlas Concorde), Alfonso Panzani (Ceramiche Settecento Valtresinaro), Cesare Pegoraro (Keratech), Giorgio Romani (Serenissima Cir Industrie Ceramiche), Mario Roncaglia (Novabell Ceramiche Italiane), Giovanni Savorani (Gigacer), Villiam Tioli (Emilceramica), Carla Maria Antonia Vacchi (Industrie Ceramiche Piemme), Mauro Vandini (Marazzi Group) and Anna Zannoni (Gruppo Ceramiche Ricchetti). The new Board of Directors will also include President Borelli and former President Franco Manfredini.
The assembly also elected Marco Squinzi, Director of Research & Development for the Mapei Group, Member of the Board of Directors representing affiliated companies.
The statistics for the various sectors of the Italian ceramics industry were also presented at the 2015 General Assembly. In 2014 there were 223 Italian manufacturers of ceramic tiles, ceramic sanitaryware and tableware and refractory material, employing 25,598 members of staff for an overall turnover of 5,687 billion Euros, thanks partly to 75% overseas sales.
The ceramic tiles manufacturing industry in Italy was valued at over 4.9 billion Euros (+4%): exports hit a record 4.1 billion Euros (+6.2%), while the domestic market was still struggling and had dropped to 804 million Euros. International manufacturing was worth 715 million Euros, thanks to 16 operations employing over 3000 staff. The turnover for ceramic sanitaryware, tableware and refractory materials was valued at over 770 million Euros, employing over 6,150 members of staff.

Da Vinci Museum of Science and Technology, is set out in a 900 m² exhibition pavilion over two levels. It opened at the end of the Confindustria National Assembly (see photo above) and there was also a guided tour around the various exhibition sections. A constructive tour promoting the understanding of sustainable food based on faith in science and institutions.

LAST CALL TO EUROPE 2020

THE INTERNATIONAL CONFERENCE ON SUSTAINABILITY ORGANISED BY THE SODALITAS FOUNDATION ON THE GROUNDS OF EXPO MILANO 2015

131 million people are below the poverty line in Europe and 10 million of these people live in Italy. One young person out of five in Europe – 4 out of 10 in Italy - are unemployed. One hundred million Europeans do not know how to use digital technology. The European Commission's target with its "Europe 2020" Strategy - to bring about intelligent, sustainable and inclusive growth - is now very much at risk.

This is the backdrop against which the Sodalitas Foundation organised "Last Call to Europe 2020", an International Conference on Sustainability, on 19th June inside the grounds of Expo Milano 2015: an entire day's proceedings devoted to promoting a shared commitment to guarantee Europe the future it requires, with 50 speakers from all over the world and leaders from over 40 national and multinational enterprises representing over 30 different nations.

The Sodalitas Foundation, first established in 1995 through the joint efforts of Assolombarda (Association of the Lombardy Region companies) and a group of businesses and managers, is the first institute to promote Business Sustainability in Italy. It pools the resources of over 100 leading companies - including Mapei, which joined the Foundation in 2011, taking part in all its projects - and a team of volunteer managers sharing the same goal: to create a sustainable future.

The morning session included speeches by representatives of the European Commission, institutions, business associations and CEOs. In the afternoon there were three workshops focusing on how to move on "from words to action", generating those decisive driving forces required for growth: digital innovation ("Growth is Smart"), new models of economic growth ("Growth is Sustainable"), employability and social inclusion ("Growth is Inclusive").

"Today really is an unique opportunity to take stock of how businesses can help tackle the challenges that are so crucial for the future of all our people", so Diana Bracco, President of Sodalitas Foundation, stated. "Europe must once again become a land of opportunities".

ENTERPRISE 2020 MANIFESTO

The Enterprise 2020 Manifesto, calling upon businesses and governments from all over Europe to work together to create sustainable and inclusive growth, was officially presented at the Conference. The manifesto has been signed by the Sodalitas Foundation and 42 partner organisations of CSR Europe (European Business Network for Corporate Social Responsibility), who are all working together to introduce the European Sustainability Agenda in 28 nations in the Union: a movement involving 10,000 businesses.

"We only have five years to reach the targets referred to in the Europe 2020 Strategy. This is a limited and invaluable period of time, which we cannot afford to waste", so Diana Bracco went on to say.

"If I had to sum up the meaning of this Manifesto in three words, I would say: Employment, Innovation, Inclusion".
The Enterprise 2020 Manifesto calls for businesses and governments to commit to the following fundamental priorities to give Europe the future it needs: increase employment; invest in innovation; place human rights at the focus of attention.
The Enterprise 2020 Manifesto will be officially presented to the European Commission in November and will become a platform for dialogue between European institutions and businesses, so that together they can implement sustainable growth.

"WAKE UP EUROPE": GIORGIO SQUINZI'S APPEAL

As well as the President of the Sodalitas Foundation, Diana Bracco, and the President of the Lombardy Region, Roberto Maroni, the event was also attended by the President of the Confederation of the Italian Manufacturing and Service Companies and CEO of the Mapei Group, Giorgio Squinzi.
The President of the Italian industrialists focused on problems facing the European Union and referred to the Grexit and Brexit as "devastating hypotheses", but he stressed that it was immigration that truly revealed "all Europe's weaknesses". According to Squinzi, we need to "set down shared structural rules and regulations about asylum rights". Squinzi described this as "one of the most tricky moments for the EU", but also pointed out that he has always been "a firm believer in Europe". The union between 28 European nations is "the only safe bet for the future" because "there is no alternative project" that is truly convincing: "We need more Europe - so Squinzi pointed out - because more Europe will not weaken us, on the contrary it will make us stronger".
It is worth quoting at greater length what the leader of the Italian industrialists had to say on this matter, as he concluded his lengthy speech: "If we want Europe to finally come out of this recession, we must raise the bar of our ambition and have a clear idea of where we are heading. As the Enterprise 2020 Manifesto rightly emphasises, we are facing some urgent challenges and we must all work together actively to accelerate along the path towards a sustainable society.
As well as being the biggest market in the world, Europe is still the biggest manufacturing aggregation on the planet. Our welfare and health care systems are envied the world over and, from a technological viewpoint, we can compete on an even standing with anybody. We business people are ready to play our part and commit to getting actively involved in reaching the targets set down in the 2020 Europe Strategy; we would just like to be supported by policies that allow our good will to be transformed into something more concrete".

"LAUDATO SI"

POPE FRANCESCO'S ENVIRONMENT ENCYCLICAL

By happy coincidence Pope Francesco's Environmental Encyclical was published in the press on 19th June - the same day that "Last Call to Europe 2020" conference was held.
The fight against pollution, action against climate change and the use of technology: Pope Francesco's new Encyclical entitled "Laudato si'", borrowed from the introduction to St. Francis of Assisi's "Canticle of the Creatures", sets down 10 commandments to protect the environment. It is entirely devoted to ecological issues and opens with the hope that: "Mankind is still capable of working together to construct our common home".
There is indeed still hope, but without really working together towards a common goal, the risks are very serious. "Catastrophic predictions can no longer be looked down with disdain and irony; our legacy to future generations may be just too many ruins, deserts and dirtiness", so the Holy Father writes in a text that takes on the issues of the environment and ecology and much more. The relationship between the poor and our planet's fragility, an invitation to find alternative ways of viewing the economy and progress, and the responsibility of international and local politics, are at the focus of a work that sets out, first and foremost, to be "an appeal, an urgent call" to the whole world: "We need a new kind of universal solidarity", but we also need to change our habits, make a "U" turn and "try and find another way of viewing progress" while "looking after our common home".

THE NEW MAPEI UK SPECIFICATION CENTRE

A CENTRE OF EXCELLENCE RIGHT IN THE HEART OF LONDON DEVOTED TO CUTTING-EDGE DESIGN FOR BUILDING PROJECTS WORLDWIDE

The new Showroom and Specification Centre of Mapei UK, the Group's British subsidiary, officially opened on 2nd July in the district of Clerkenwell, London. This new facility is entirely devoted to the world of design, a sector that is really booming in the United Kingdom. But that is not all. Seeing as London has now gained a worldwide reputation as an international centre of modern architectural design (see the box on the following page) and the district of Clerkenwell can boast an extremely high concentration of design and architecture firms, the new Mapei Showroom and Specification Centre clearly has an international vocation. Here architects and designers from all over the world can draw on permanent technical assistance, full information about innovative products, practical solutions to every possible issue in the realm of building, and support with design work and drawing up specifications.

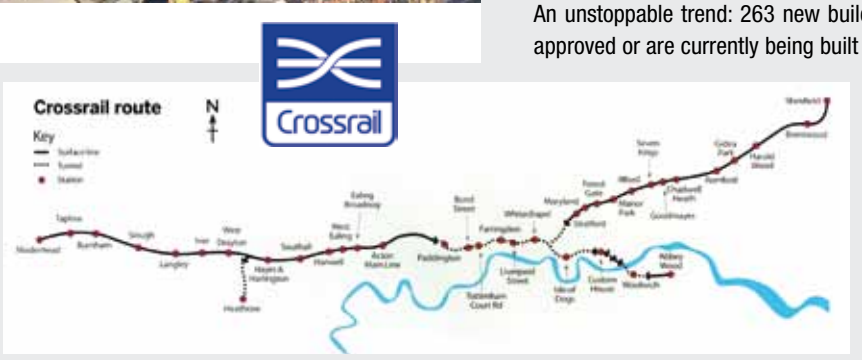
The new facility, designed by the architect Marco Manzoni working for the mother company Mapei SpA, is concrete evidence of just how important the Mapei Group considers the relationship between designer and manufacturer. A relationship that can produce important synergies on a technical level, so that innovative solutions can be supplied all over the United Kingdom and even further afield. Expert Mapei technicians are available all year round in a special area of the showroom ready to provide dedicated training and practical/theoretical support in choosing, applying and looking after Mapei products. There is an extensive schedule of training events covering a wide array of issues: quick-to-apply screeds, solutions to the most common problems associated with installing ceramics, the preparation of the substrates, and effective waterproofing.

All 15 lines of Mapei products are on display at this new facility in the form of textured samples, progress slabs, panels and images of prestigious international projects

HIGHER AND HIGHER... AT THE CENTRE OF THE WORLD

Over the last few years the London skyline has changed radically. More and more skyscrapers and towers are spiralling up into the London skies, often designed by famous international architects: the Shard designed by Renzo Piano, the "Walkie-Talkie" by Rafael Viñoly Beceiro, the Gherkin by Norman Foster, and many others. An unstoppable trend: 263 new buildings, all over twenty stories high, have been approved or are currently being built in the British capital, not just in the city centre but also out in the suburbs. Lots of new futuristic projects are also on the way, like those for constructing Gotham City (a complex of neo-Gothic style architecture featuring a 34-storey tower), Fielden House, a 27-storey building also designed by Renzo Piano, and a block of apartments designed by Frank Gehry for the New Covent Garden Market area, including a new building called "The Flower". Old buildings and residential estates will soon be replaced by large-scale architectural projects featuring extremely tall towers in 38 new opportunity areas. This race to project London "upwards" is clearly a symptom of an extremely dynamic property market, on which major construction companies operate, that has resulted in the sale of a dazzling number of apartments. All this thanks to British and international investments, which place London at the focus of the world of architectural design and experimentation.

Meanwhile London is also expanding at the "bottom" in the form of underground constructions like the famous Crossrail. This is the biggest railway and infrastructural project in the whole of Europe, which, by 2018, should result in the completion of a 118 km railway line connecting the city centre to lots of surrounding areas. The project involves the construction of a number of tunnels and Mapei has already supplied products for waterproofing those of the Farringdon station, whose works were completed in June. Further details in the next issues of *Realtà Mapei International*.



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OPPOSITE PAGE. The new Mapei UK Showroom and Specification Centre recently opened in the Clerkenwell district of London.
PHOTOS 1-2. The showroom focuses on the advantages of Mapei products for architects and designers with progress slabs, panels, video clips and technical documentation.
PHOTO 3. Those attending the opening included: Marco Manzoni, who designed the new showroom, and Laura Hyenes, Marketing Manager for Mapei UK.

the company has been involved in, backed up by video clips and technical documentation. All this is designed to provide architects, contractors and designers with precise guidelines and all the information required to include Mapei products in their specifications.

There is also a model in the middle of the showroom clearly showing the different realms of application of Mapei products in various sectors of the building industry.

OPENING TIME!

The opening ceremony for this new design facility was held in the presence of Adriana Spazzoli, the Mapei Group's Operational Marketing and Communication Director, Veronica Squinzi, the Group's Internationalisation and Global Development Director, Flavio Terruzzi, Mapei SpA'S Export Department Director, Roberto Vigo, Mapei SpA's Export Manager for the UK, as well as management and staff from Mapei UK and miscellaneous VIPs and local guests. They also included the Italian Ambassador to London, Pasquale Terracciano.

PHOTOS 4, 5 and 6. Philip Breakspear, Joint Managing Director of Mapei UK, briefly outlined the history and business operations of Mapei UK together with Kevin Field and Huw Morgan (respectively Director and Manager of the Sales Department for the United Kingdom and Northern Ireland).

PHOTO 7. Adriana Spazzoli, the Mapei Group's Operational Marketing and Communication Director, and Veronica Squinzi, the Group's Internationalisation and Global Development Director, outlined the Mapei Group's global operations and investments in the United Kingdom.

Philip Breakspear, Joint Managing Director of Mapei UK, Kevin Field and Huw Morgan (respectively Sales Director and Sales Manager for the UK and Republic of Ireland) welcomed everyone in attendance and briefly outlined the history and current state of the British subsidiary, as well as pointing out the aims of the new Showroom and Specification Centre. A video clip provided an effective overview of Mapei UK, showing its facilities and company values and goals. Adriana Spazzoli and Veronica Squinzi then underlined the strategic importance of the UK market and Mapei UK for the Group, which plans to continuing making considerable investments over here, as it has done in the past. The Group's commitment to internationalisation and its global nature were outlined to the general public through a short video clip, which took a look at all the major international building projects in which Mapei products have been used everywhere from Russia, Singapore and Panama to Milan, Spain, China and, of course, prestigious projects in the UK, such as Queen Elizabeth Hospital in Birmingham, Siemens Sustainability Centre in London, Terminal 5 of Heathrow Airport and Wembley Stadium.

It was then the turn of Lord Digby Jones of Birmingham Kt, an important businessman and former Director General of the Confederation of British Industry and Minister of State for Trade and Investment, who analysed the future prospects of the British and European economies. This day of celebrations, reviews, expectations and enthusiasm marked the official opening of the new Mapei UK Showroom and Specification Centre in London.

PHOTO 8. Lord Digby Jones of Birmingham Kt, a former Minister of State for Trade and Investment, took stock of the present situation and analysed the future prospects of the British and European economies.
PHOTO 9. A blue-and-white cake was cut at the end of the celebrations.
PHOTO 10. The Italian Ambassador to London, Pasquale Terracciano (on the right).

INTERIOR LIVING

ULTRATOP LOFT

Essentiality, personality, design and durability. Floors and walls become living elements.

Ultratop Loft, an innovative proposal in which shades, linearity and end results become the solution for contemporary interior design.
Ultratop Loft, one-component trowellable cementitious paste to create decorative floor and wall coverings with a materic effect.

MAPEI IN THE UK

EFFICIENCY, ECO-SUSTAINABILITY AND A PROMISING MARKET FOR THE BRITISH SUBSIDIARY OF THE GROUP

TOP OF THE PAGE. Mapei UK's headquarters and plant are located in Halesowen, West Midlands (UK).
ABOVE. Pamie, the travelling school used by Mapei UK.

Mapei has been operating in the United Kingdom since 1989 through Mapei UK Ltd and experienced continuous growth. In 2014 the Group's local subsidiary reached a turnover of 42,390,000 pounds (+20% over 2013), with an average annual growth over the last five years of 13%. This was also achieved thanks to a continuous widening of the product offer for the local market by introducing an ever increasing number of product lines. Mapei UK currently employs 180 staff, 12 of whom forming a highly efficient Technical Services Department for its over 1200 customers. It also has a cutting-edge manufacturing centre in Halesowen in the Birmingham area, which was officially opened by Giorgio Squinzi, CEO of the Mapei Group, and Lord Michael Heseltine, and extended in 2008. The plant has an annual manufacturing output of 300,000 tons of adhesives, as well as lots of other building products, with a constant increase of locally manufactured materials. The complex accommodates manufacturing, stock, marketing, sales and technical services - all dedicated to the provision of efficient and friendly customer service - all under one roof. The site is home to product demonstration areas and training facilities, holding regular training and educational sessions. Mapei UK's committment to training is also carried out using "Pamie", a specially-fitted mobile training centre which allows Mapei technicians to hold courses all over the UK.

Mapei UK also has a dedicated team of "Specification Managers" operating all over Great Britain; a showroom and "Specification Centre" was also recently opened in Clerkenwell right in the heart of London (see the previous article).

This well shows that the Mapei Group has great faith in the British market and over the next years Great Britain will again be at the focus of major investments to support Mapei UK's growth. The objective is to reach a turnover of 100 milion pounds as soon as possible, offering the local market all the 15 Mapei product lines.

The subsidiary has been set some ambitious goals and targets as part of the "Future Vision" project outlined during the official opening of the new Specification Centre: reaching a turnover of 100 million pounds; greater commitment to operations regarding specifications, trai-

FUTURE VISION OF MAPEI UK

- 90-100 million pounds turnover
- Specifications
- Innovative products
- 15 Mapei product lines
- Technical excellence
- Training
- Site support
- Strong Customer Partnerships
- Research and Development

ning and on-site assistance; introduction of all 15 lines of Mapei products; development of innovative products; aspiration to technological excellence; increasing investments in Research & Development; strengthening the partnerships with clients and customers.

EFFICIENCY AND ENERGY SAVING IN PRODUCTION

Through an Integrated Management System (IMS) Mapei UK has been able to execute a methodical and proficient approach towards its production efficiency, product quality, sustainability, health and safety.

A Complete Maintenance Management System (CMMS) collates vital information throughout the production process which helps maintenance make more informed, effective decisions and therefore improve overall efficiency. The adoption of advanced Condition Monitoring techniques for production equipment improved product quality and consistency. Energy is also saved by implementing an Intelligent Compressor Controller (ICC) which covers all production lines and ensures that all lines operate at the minimum acceptable air pressure. Mapei UK actively tries to reduce the amount of energy/electricity/fuel consumed and use local suppliers where possible.

In 2014, 1000 solar panels were installed on Mapei UK's plant roofs. They provide about 15-20% of the total electricity used in the complex. Mapei UK continually endeavour to reduce the amount of waste sent to landfill. In April 2011 Mapei UK also became members of the U.K. Green Building Council and in September 2010 achieved ISO 9001 (Quality Management System), ISO 14001 (Environmental Management System) and ISO 18001 (Health and Safety Management System) certifications.

ECOBUILD

A LANDSCAPED AREA OF ECO-SUSTAINABLE SOLUTIONS

The 2015 edition of Ecobuild, an international trade fair devoted to energy, design, architecture and green constructions, was held from 3rd to 5th March at the ExCel Exhibition Centre in London and attracted lots of people working in the industry: architects, contractors, installers and representatives of building companies.

Once again this year Mapei attended the event through its British subsidiary Mapei UK Ltd. The corporate stand at Ecobuild set out to recreate a landscaped area inside the trade fair, complete with real plants and bushes. A white fence, rather like a garden fence, was set up around the exhibition area, where the Mapei logo "took pride of place". Progress slabs and panels focused on the innovative eco-sustainable solutions the Mapei subsidiary offers the British building market.

Another leading attraction in the Mapei stand at Ecobuild was most certainly "Pamie", the travelling school used by Mapei UK technicians and experts to run training events all over the United Kingdom. On this occasion Pamie was transformed into a "suite" for welcoming visitors to the trade fair.

Another big attraction with the general public were the products demonstrations held every day of the event, which attracted big audiences armed with cameras to take plenty of photos they could then share. This was certainly an effective way of promoting the benefits and proper way of using all kinds of Mapei materials.

ecobuild
SUSTAINABLE DESIGN · CONSTRUCTION · ENERGY
03-05 MARCH 2015 EXCEL LONDON

AN ECO-SUSTAINABLE SERVICE STATION ON ONE OF THE MAIN MOTORWAYS OF THE UK

GLOUCESTER SERVICES ON M5

A brand new motorway services, Gloucester Services, was recently completed on the M5, the primary gateway to South West England. Gloucester Services celebrates Gloucestershire through its farm shop, home-made food and interior design.

The complex includes a main building with an arched grass covered roof and walls constructed from local stone with BREEAM (Building Research Establishment Environmental Assessment Method) excellence, new access slip roads from the M5, a café, a made-to-go food outlet, a farm shop, a play area, an information area, and toilets. There is also a fuel station, parking for all vehicle types, and extensive landscaping.

The 40 million pound project has created 300 jobs and aims to generate 10 million pounds over 20 years for local community projects.

The contractor worked closely with the developers to ensure that the community oriented approach was also reflected in the construction.

This new "eco-type" service station was built on the M5 Northbound, between junctions 11a and 12.

BUILDING CONTINUOUS FLOORS

In the main concourse and petrol station shop, floor screeds were built over insulation and under-floor heating using TOPCEM special normal-setting, quick-drying (4 days), controlled-shrinkage hydraulic binder.

Once the screed was dried and cured (after about 5 days), PRIMER SN two-component epoxy primer with fillers was applied to the surface which was then fully broadcast with QUARTZ 1.2, a dry silica sand used to improve the bond of the following layers.

ULTRATOP self-levelling, ultra-quick hardening mortar was then applied by pump at a thickness between 5 and 40 mm. This made it possible to create abrasion-resistant floors which are necessary in

IN THE SPOTLIGHT

ULTRATOP

It is a self-levelling product in powder made up of special quick-drying and quick-setting binders, specially graded silica sand, synthetic resins and special admixtures. When mixed with water, ULTRATOP becomes a self-levelling compound with high mechanical strength and resistance to abrasion. It is easy to apply either by hand or pump in thickness from 5 to 40 mm. ULTRATOP is used internally in public and industrial buildings, for levelling and smoothing new or existing concrete and ceramic substrates, to make them suitable for heavy pedestrian use in shopping centres, offices, shops, showrooms, etc.

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

a service stations open 24 hours a day. In this case ULTRATOP was used in an anthracite color shade.

During the polishing process, anthracite-coloured ULTRATOP STUCCO powdered grout made from special hydraulic binders was applied for filling micro-porosities.

ULTRATOP STUCCO is used whenever flooring made from ULTRATOP requires a perfectly smooth, flat, light-reflecting finish, or a special effect such as “polished” or “terrazzo alla veneziana” as an alternative to the “natural” effect of un-polished self-levelling mortar. It is used, therefore, to seal microporosity which forms on the surface of hardened ULTRATOP during dry-polishing treatments, immediately after the preliminary “roughing” cycle.

Floor joints were sealed using anthracite-coloured MAPEFLEX PU30 two-component, high-strength, thixotropic epoxy-polyurethane sealant with high chemical resistance for movements up to 10%.

TECHNICAL DATA

Gloucester Services M5 Northbound, Gloucestershire (UK)
Period of Construction: 2013-2014
Period of the Mapei Intervention: 2013-2014
Intervention by Mapei: supplying products for building the screeds, treating the substrates, laying cementitious floors, and finishing the surfaces
Design: AFL Architects
Client: Westmorland Family
Works Direction: Frank Whittle Parnership
Main Contractor: Buckingham Group
Flooring Contractor: Polished Concrete Designs
Mapei Co-ordinators: Chris Orme and George Guesford, Mapei UK

MAPEI PRODUCTS

Preparing the substrates: Primer SN, Quartz 1.2, Topcem
Building cementitious floors: Ultratop, Ultratop Stucco
Sealing joints: Mapeflex PU30

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

PHOTO 1. Screeds were built with TOPCEM hydraulic binder over under-floor heating.
PHOTOS 2-3. After treating the substrates with PRIMER SN, ULTRATOP in its anthracite version was applied by pump to build cementitious floors.

WEST BROMWICH LEISURE CENTRE

A NEW LEISURE CENTRE IN THE WEST MIDLANDS

The new West Bromwich Leisure Centre is located in the West Midlands (UK) and is a modern 12.5 million pound leisure centre designed by Roberts Limbrick Architects. The centre offers a 25 m pool, a learner pool, a sauna and steam room, a four-court sports hall, a fitness suite, dance studios, a dedicated children's adventure area and a café. The complex benefitted Future Skills Sandwell (a local high school focusing on building) students by providing training and employment opportunities, which already started during construction: at least 10 local students were involved in the construction process.

Throughout the extensive project, Mapei systems for interiors were specified from the substrate solutions to the finishing materials (including products for screeds, renders, waterproofing materials, tile adhesives, grouts, and sealants), in order to provide a warrantable system build-up, with Mapei UK's Technical Services assisting throughout. Various detailing issues were overcome with the input of the Mapei Technical Services, including the drainage channels.

A SOLUTION FOR ANY ENVIRONMENT

In the swimming pool and in the surrounding area EPORIP two-component, solvent-free epoxy adhesive was used on the substrates as a bonding agent for the following layer of a screed containing TOPCEM normal-setting, quick-drying (4 days), controlled-shrinkage hydraulic binder for screeds. ADESILEX P9 high-performance cementitious adhesive with no vertical slip and extended open time, in its white shade, was used for bonding ceramic tiles in the pool, while joints were grouted with ULTRACOLOR PLUS anti-efflorescence,

quick-setting and drying polymer-modified mortar with water-repellent DropEffect® and mould-resistant BioBlock® technology.

In the showers, washrooms and changing rooms ADESILEX P9 again ensured successful bonding of the tiles. ULTRACOLOR PLUS was again used to grout the joints, while MAPESIL AC pure, mould-resistant, acetic silicone sealant was used to seal the expansion joints.

Substrates in wet areas had been previously waterproofed with MAPEGUM WPS quick-drying flexible liquid membrane, MAPEBAND alkali-resistant rubber tape with felt, and MAPELASTIC AQUADEFENSE ready-to-use, ultra quick-drying, flexible liquid membrane.

NIVOPLAN smoothing mortar for internal and external walls and ceilings was used to render the walls in the main and learner pools.

MAPECOAT I24 two-component epoxy paint for anti-acid coatings was instead applied to coat scum channels around the pools.

ABOVE. A view of the West Bromwich Leisure Centre.
LEFT. Ceramic tiles were laid in the swimming pools and changing rooms with ADESILEX P9.
BELOW. Tile joints were grouted in the showers and washrooms with ULTRACOLOR PLUS.

IN THE SPOTLIGHT

ADESILEX P9

It is a high performance cementitious adhesive with no vertical slip and extended open time for ceramic tiles and stone materials. It is suitable for interior and exterior bonding of ceramic tiles and stone materials (that are stable to humidity) and mosaics on floors, walls and ceilings, as well as for spot bonding of insulating materials such as expanded polystyrene, rock and glass wool, Eraclit®, sound-deadening panels, etc. It can contribute up to **4 points** to obtain the **LEED** certification.

TECHNICAL DATA

West Bromwich Leisure Centre, West Bromwich (UK)
Period of Construction: 2013-2014
Period of the Mapei Intervention: 2013-2014
Intervention by Mapei: supplying products for treating and waterproofing the substrates; laying ceramic tiles, grouting joints; sealing expansion joints
Design: Roberts Limbrick Associates
Client: Sandwell Council/ Places for People Leisure
Main Contractor: Pellikaan Construction Ltd
Laying Companies: Buckingham Pools, CJM Tiling, Phoenix Flooring
Mapei Co-ordinators: Jason Brunt, Mark Rudge, Gary Byrne, George Guesford, and Graham Baker, Mapei UK

MAPEI PRODUCTS

Preparing the substrates: Eco Prim Grip, Nivoplan, Topcem, Ultraplan Renovation Screed*
Waterproofing: Mapeband, Mapegum WPS, Mapelastic Aquadefense
Laying ceramic tiles: Adesilex P9, Keraflex Maxi, Mapeker Rapid Set Flex*, Mapetex Sel
Grouting joints and sealing expansion joints: Keracolor FF, Mapeflex PU30, Mapesil AC, Ultracolor Plus
Scum channels coating: Mapecoat I24

*These products are manufactured and distributed on the British market by Mapei UK.

For further information see www.mapei.com and www.mapei.co.uk

SCOTTISH CRIME CAMPUS IN GARTCOSH

AN IMPOSING COMPLEX FOR THE SCOTTISH POLICE

Gartcosh is a village in North Lanarkshire, Scotland, a few miles east of Glasgow. Though originally an agricultural village, from the mid-19th century onwards it became prominent in industry with the opening of iron works and fireclay works.

Gartcosh Business Interchange is currently being developed on the site of the old strip mill and steel works. Scottish Enterprise and North Lanarkshire council invested 18 million pounds on land reclamation and upgrading transport access. This project is intended to provide over 170,000 m^2 of business space serviced by transport links.

The new Scottish Crime Campus was developed within Gartcosh Business Interchange. This is a 82 million pound design project by BMJ Architects and Ryder Architecture. The Campus houses elements of several Police Scotland's partner agencies in the Criminal Justice system at Serious and Organised Crime level.

The building is conceived as 4 wings arranged around a central atrium, a configuration that mirrors the DNA double helix. Internally, different widths of concrete posts have contributed to a "barcode" effect and the monochrome tones of the structure are complemented by dark large-size stone slabs installed on walls and floors.

LAYING STONES AND MOSAICS

Split over three levels adjoined by a main staircase, the main atrium is the central internal focus of the building. The stone slabs were installed on the floors using KERAQUICK fast-setting cementitious adhesive in its grey shade mixed with LATEX PLUS admixture for improved deformability. Joints were grouted with Cement Grey coloured ULTRACOLOR PLUS anti-efflorescence, quick-setting and drying polymer-modified grout with water-repellent DropEffect® and mould-resistant BioBlock® technology.

The two feature staircases linking all 3 floors were cast on site by the main contractor and the substrates were not within tiling tolerance. To overcome this, a floor screed was produced using TOPCEM hydraulic binder and bonded to the concrete substrate using a bonding slurry that included PLANICRETE synthetic latex rubber to bring the treads within tolerance. Stair treads and risers were covered with stone slabs installed with KERAQUICK. ULTRACOLOR PLUS was again used to grout the joints. Walls on both sides of the stairs were covered with stone slabs, laid with KERAQUICK mixed with LATEX PLUS. The joints were again grouted with ULTRACOLOR PLUS.

In the washrooms ceramic tiles were again installed on the walls with KERAQUICK and joints were grouted with ULTRACOLOR PLUS. The substrates had been smoothed with ULTRAPLAN RENOVATION SCREED

LEFT. In the main atrium stone slabs were installed on the floors using KERAQUICK + LATEX PLUS. Joints were grouted with ULTRACOLOR PLUS.
ABOVE. Stair treads and risers were covered with stone slabs installed with KERAQUICK and joints were grouted with ULTRACOLOR PLUS. The stone slabs on the walls on both side were laid with KERAQUICK mixed with LATEX PLUS.
BELOW. In the washrooms, sand cement screeds were smoothed with ULTRAPLAN RENOVATION SCREED prior to bonding mosaics with ADESILEX P9 and grouting the joints with ULTRACOLOR PLUS.

levelling compound manufactured and distributed to the local market by Mapei UK. As for the walls, mosaics were installed with ADESILEX P9 polymer-modified, high strength, cementitious adhesive with no vertical slip and extended open time. The joints were again grouted with ULTRACOLOR PLUS.
In the washroom facilities, sand cement screeds were smoothed with ULTRAPLAN RENOVATION SCREED levelling compound prior to bonding mixed mosaics with ADESILEX P9 and grouting the joints with ULTRACOLOR PLUS.

TECHNICAL DATA
Scottish Crime Campus, Glasgow (UK)
Period of Construction: 2013-2014
Year of the Mapei Intervention: 2013
Intervention by Mapei: supplying products for preparing and levelling the substrates, laying stone slabs and mosaics and grouting joints
Design: BMJ Architects
Client: Gartcosh Business Interchange
Main Contractor: Balfour Beatty
Laying Companies: Tilecraft, IFT
Mapei Co-ordinator: Gordon Ferguson, Mapei UK

MAPEI PRODUCTS
Preparing the substrates: Topcem, Planicrete, Ultraplan Renovation Screed*
Laying stone and mosaics: Adesilex P9, Keraquick, Latex Plus, Ultracolor Plus.

* This product is manufactured and distributed to the British market by Mapei UK

For further information see www.mapei.co.uk and www.mapei.com

IN THE SPOTLIGHT
KERAQUICK
It is a grey or white powder adhesive composed of a blend of special cements, selectively-graded aggregates, synthetic resins and setting accelerators that develop high bonding strength only 2-3 hours after installing. It is ideal for the installation of ceramic and mosaic tiles of every type and stone materials that are not extremely sensitive to moisture, as well as of insulating materials. It can contribute up to **4 points** to obtain the **LEED** certification.

MILAN CENTRALE RAILWAY STATION

RENOVATION AND REDEVELOPMENT WORK ON MILAN "CENTRALE" RAILWAY STATION

Milan "Centrale" railway station had a complete overhaul for Expo Milano 2015 which transformed it into a more functional, modern and welcoming structure without compromising its characteristic monumental style. Its Liberty, Eclectic and Fascist Rationalism decorations have also been highlighted, features that make it one of a kind in the world.

Milan "Centrale" railway station is one of the most important railway hubs in Europe. On the 28th of April 1906, King Vittorio Emanuele III laid the first stone of what was to become Milan's new railway station. It went on to replace the old transit station built in 1864 in Piazza della Repubblica, which by then had become too small to handle the increased amount of goods and passenger trains traffic following the opening of the Simplon Tunnel in 1906. Because of the complexity and importance of the construction, it was only in 1910 that the committee responsible for evaluating the design projects that had been presented, chaired by the Italian architect Camillo Boito, announced the winning design by the Florentine architect Ulisse Stacchini, well-known for his previous work on Liberty-style buildings. Then, due to the modifications to the design requested by the Italian Railway Board, the outbreak of the Great War and the subsequent economic depression, work began again in 1924 and was completed in 1931. The imposing structure (207 m long, 36 m wide and 50 m high) was completed by building the three grand steel and glass arches stretching over the 24 tracks, designed by the engineer Alberto Fava. Travellers came, and they are still coming, to be welcomed in an enormous lobby measuring 200 m^2.

THE RENOVATION PROJECT

The second largest railway station in Italy after Roma Termini, Milan "Centrale" handles 600 trains a day, serves as a terminus for numerous city and airport shuttle buses and as a station for lines M2 and M3 of the underground railway network. Redevelopment of the station was one of the most important projects in order to provide a proper welcome to visitors to Expo Milano 2015, an extra load on top of the 320,000 people that already use the station on a daily basis.

Restructuring work started in 2005 and was more or less completed in 2010 and included renovation work and consolidation of the historic parts of the station to integrate them with the updated ones. It was one of the most important conservative renovation projects on a public building ever carried out in Italy. The "mixture" of antique parts and modern services gave the station a new lease of life, providing a more modern and functional lay-out inside an architectural monument.

The project included cleaning and upgrading the original Liberty and Art Deco style structure, installation of a new ticket office, new ramps leading directly to the two lines of the metropolitan railway network, connections with the two lateral piazzas and new shopping areas and restaurants. The so-called "Royal Room", the waiting room originally used by the Savoia royal family on platform 21, was also renovated and is now used to host events and conventions.

A RAPID, EFFICIENT AND SAFE INTERVENTION

Various interventions have been carried out at "Centrale" railway station since 2005. Not only was there an intense programme of conservative renovation work on the original parts of the station carried out in collaboration with the Lombardy Region Cultural Heritage Body, work was also carried out to strengthen the structure, install stone and porcelain tile floorings, repair the old Gneiss stone flooring and waterproof various areas of the station (see the article in *Realtà Mapei International* no. 26).

After completing the work mentioned above, the second phase got under way by rearranging the thoroughfares and areas used by the passengers in transit.

The work schedule also had to consider the request by the Italian National Board to carry out work in these areas without interrupting rail traffic. This is why the new flooring in front of the platforms had to be installed mainly at night to avoid interference with passengers passing through the station. It was also important to use products that were safe and quick to apply, but with the capacity to withstand constant, intense foot traffic.

Mapei Technical Services recommended the best products to enable work to be carried out rapidly and effi-

ciently, bearing in mind also the tight schedule to complete the work.
Work was carried out on around 4.000 m^2 of surfaces, with 400 m^2 covered with asphalt tiles and the remainder with slabs of 3 cm thick Sicilian Perlato marble. The existing flooring was made from large slabs of marble on a bed of mortar, which by now had started to give way and the slabs were becoming detached and were a hazard for passengers.
The first step was to demolish the old marble flooring and bed of mortar down to the reinforced concrete floor slab. A new screed from 4 to 8 cm thick was laid using TOPCEM special normal-setting, quick-drying (4 days), controlled-shrinkage hydraulic binder for screeds, mixed with GHIAIETTO 0-8 mm gravel by Vaga (Mapei Group). The screed was bonded to the floor slab using a bonding slurry made from water, cement and PLANICRETE latex for cementitious mixes with a 50x50 mm galvanized mesh made from 2 mm diameter wire positioned at the mid-point of the screed.
Once the screed had cured (after around 48 hours), the materials chosen for the flooring were installed. For the marble slabs, the recommended adhesive was KERAFLEX MAXI S1 high-performance deformable cementitious adhesive with no vertical slip, extended open time and Low Dust technology for ceramic tiles, class C2TE S1 according to European standard EN 12004. The slabs joints were then grouted with KERACOLOR FF pre-blended, polymer-modified cementitious mortar. The asphalt tiles, on the other hand, were bonded with GRANIRAPID two-component, high-performance, deformable, rapid-setting and hydrating cementitious adhesive, particularly suitable for bonding floorings subject to heavy traffic. Thanks to its special adhesion and quick drying properties, this product is particularly suitable for flooring that need to be put back into service quickly.

PHOTO 1. The first step was to demolish the old, damaged flooring.
PHOTO 2. TOPCEM mixed with GHIAIETTO 0-8 mm gravel by Vaga was used to make the new screed.
FOTO 3. The screed was reinforced by positioning a galvanized mesh at the mid-point.
PHOTO 4. The slabs of marble were bonded with KERAFLEX MAXI S1 and the joints were grouted with KERACOLOR FF.
PHOTO 5. The area in front of the platforms upon completion of the work.
PHOTO 6. A view of the area in front of the platforms before the renovation intervention.


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IN THE SPOTLIGHT

KERAFLEX MAXI S1

It is a high performance, cementitious adhesive with no vertical slip, suitable for the installation of large-size ceramic tiles and natural stone, for interior and exterior bonding (up to 15 mm thick). KERAFLEX MAXI S1 is a deformable, improved slip-resistant adhesive with extended open time. The Low Dust technology considerably reduces the amount of dust compared with standard cementitious adhesives, making floor-layers' work easier and healthier. It can contribute up to **4 points** to obtain the **LEED** certification.

TECHNICAL DATA

Milan "Centrale" Railway Station, Milan (Italy)
Design: Ulisse Stacchini
Period of Construction: 1924-1931
Period of the Mapei Intervention: 2013-2014
Intervention by Mapei: supplying products to build screeds and bond asphalt tiles and marble slabs in the area in front of the platforms
Client: Grandi Stazioni SpA
Works Direction: Mr. Carminati, Italian National Railways Board
Flooring Contractor: Edil Madi
Mapei Distributor: Uniedil
Mapei Co-ordinators: Roberto Orlando and Valerio Mandelli, Mapei SpA (Italy)

MAPEI PRODUCTS

Building the screeds: Ghiaietto 0-8 mm (gravel) by Vaga (Mapei Group), Planicrete, Topcem
Laying marble slabs: Keracolor FF, Keraflex Maxi S1
Laying bituminen blocks: Granirapid

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

THE USA CONSTRUCTION MARKET

SIGNS OF GROWTH IN ALMOST ALL BUILDING SECTORS

After suffering for a number of years, it looks like the residential building market in the United States has finally picked up again. According to some market analysts there is good reason to expect a new "boom" in this sector.

After the long recession, there are currently a high number of youngsters between the ages of 20 and 25 that should generate a solid demand for new houses. Because of the recession, the number of youngsters that have either remained under their parents' roof, or gone back to living with their parents, had increased. In fact, almost one third of youngsters in the 18 to 34 age bracket currently live with their parents. The percentage has risen from 27% in 2004 to 31% in 2013 and now, thanks to an improvement in the economy, the forecast is for this percentage to fall slowly back to the levels registered between 1990 and 2004.

Lastly, the number of new families that have been formed has risen considerably over the past few months and this should lead to an increase in demand for new homes.

EXISTING HOME SALES AT HIGHEST LEVELS

Figures published in July 2015 by the National Association of Realtors (NAR) regarding existing home sales show an increase of over 2% compared with the previous month and 11% compared with one year ago. Sales reached 5,590,000 units, the highest level since July 2007. The average selling price in July was about 236,000 US dollars, an increase of 5.7% compared with the same period of the previous year. In August existing home sales reached 5,300,000 units, while in September they totalled 5,500,00 units (+8.8% compared with September 2014).

According to Lawrence Yun, Chief Economist and Senior Vice President of Research at NAR, "A combination of low interest rates and continued stability in the employment market has given buyers more confidence and will finally free up the latent demand that has accumulated over the last few years".

INCREASE IN HOUSING STARTS

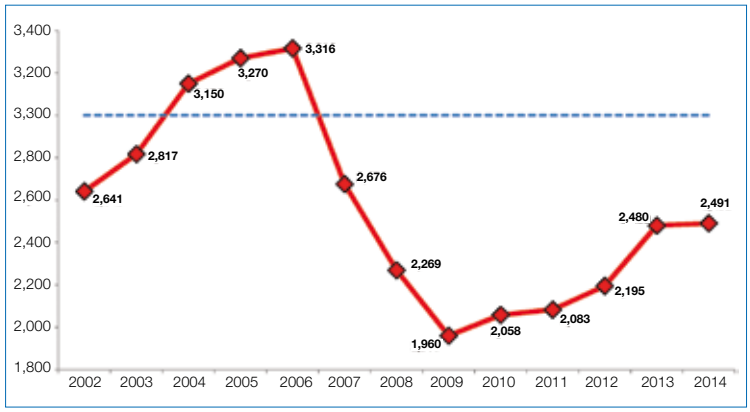
Housing starts refer to the number of new residential construction projects that have begun during any particular month, including structures being totally rebuilt on an existing foundation.

In the first months of 2015 housing starts have continued to increase. According to figures from the U.S. Census Bureau, in March housing starts rose by 2% compared with the previous month. In April and May the number of housing starts increased again, by around 1.16 million units in April and 1.069 million in May. In June the increase was at an annual rate of around 1,174,000 units (+9.8% compared with May 2015 and

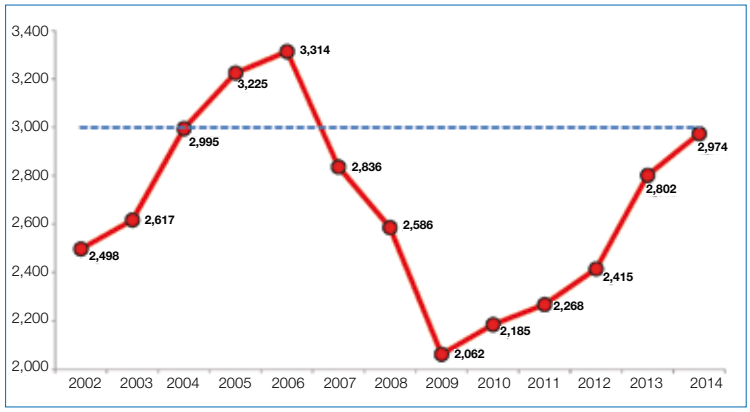
+26.6% compared with June 2014). Housing starts also increased by 0.2% to 1,206,000 units in July, making it the highest figure since October 2007. In September they were at a seasonally adjusted annual rate (SAAR) of 1,206,00, +6.5 from August 2015 and +17.5% from September 2014.

RISE IN BUILDING PERMITS

In March 2015 the number of building permits issued were at an annual seasonal rate of almost 1.04 million, a drop of 5.7% compared with the previous month but an increase of 2.9% compared with the same period in 2014. In April and May the number of building permits rose slightly to 660,000 in April and 683,000 units for detached houses, 32,000 (in April) and 35,000 (in May) for buildings with 2 to 4 homes and 442,000 and 55,000 for buildings with 5 or more homes. The overall figures of building permits were 1.14 milion in April and 1.25 milion in May. In June building permits were issued for 1,343,000 units, an increase of 7.4% compared with May 2015. In July building permits totalled 1.13 milion units while in September 2015 they were at a seasonally adjusted annual rate of 1,103,000, +4.7% from September 2014.



GRAPH 1. USA ceramic tiles consumption for 2002-2014 (in millions of square feet).



GRAPH 2. USA ceramic tiles consumption for 2002-2014 (in millions of US dollars).

2015 RENOVATION MARKET

According to the Leading Indicator of Remodelling Activity (LIRA) adopted by the Joint Center for Housing Studies (JCHS) of the University of Harvard, the estimated increase in money invested in restructuring residential units at the end of 2014 slowed down during the first part of 2015, but will gain ground again during the final three-month period. Forecasts for the LIRA index in this sector indicate a 2.9% rate of growth compared with the previous year for a total spend of 147.4 billion dollars.

HOLLYWOOD CASINO. Maryland Height (Missouri-USA).

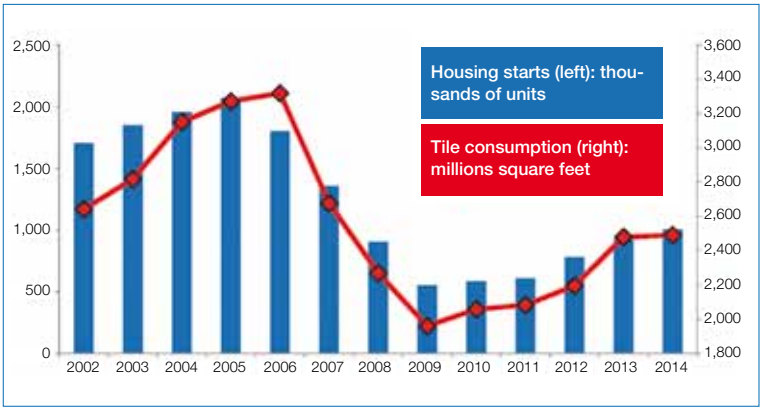
THE USA TILES MARKET

Considering the recent developments on the United States market, forecasts for the consumption of ceramic tiles in 2015 indicate an increase of 10-15%. Tiles account for 12-13% of the market in economic terms, but if laying costs are included the percentage increases to 30%.

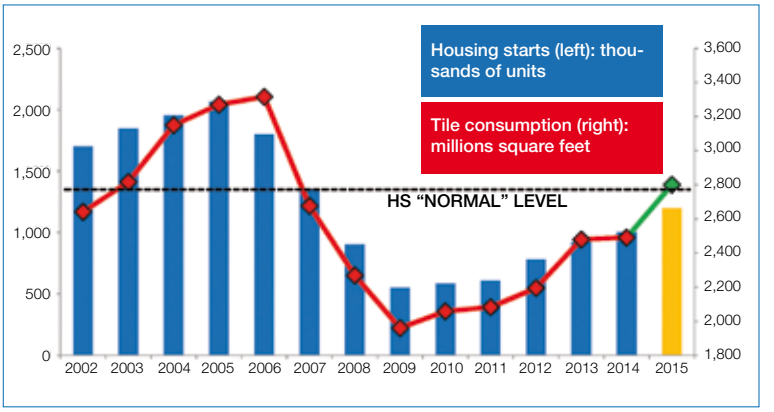
According to John C. Turner, President of the Dal-Tile Business Unit of Mohawk, the Coverings trade fair is a reliable indicator of the trend in this sector, and the fact that this year the exhibition space at the trade fair was completely "sold out" shows that the tiles market is picking up.

In 2013, consumption in the United States in terms of square metres in-

creased by 12%. 2014, on the other hand, was relatively stable. After speaking with various tile outlets, however, it would seem that 2014 was not such a negative year. This could be explained by the fact that we must make a distinction between "apparent consumption", that is, products sold to stockists for which we have data, and "real consumption", or products sold to end users for which we have no reliable data. It may be that a portion of the products sold to stockists in 2013 remained in the warehouses and so figures for tiles purchased by end users in 2014 were not really stable.



GRAPH 3. Correlation between housing starts and ceramic tiles consumption in the USA for 2002-2014.



GRAPH 4. Relationship between new constructions and ceramic tiles consumption in the USA for 2002-2015.

TILES FROM OVERSEAS

USA tile imports in the sixth month of 2015 (16.86 million m²) increased compared with May 2015 (15.19 million m², +10.1%) and were 16.5% higher compared with June 2014 (14.47 million m²). Imports from Italy were 3.13 million m², higher than in May 2015 (2.90 million m², +7.9%) and in June 2014 (2.84 million m², +10.2%). In the first 8 months of the year the total quantity imported was 118.7 million m² (+11.5% compared with the same period in 2014).

China was the main supplier with 34.88 million m², followed by Mexico (32.83 million m²), Italy (21.37 million m²), Spain (7.9 million m²), Turkey (5.6 million m²), Brazil (5.1 million m²) and other countries.

The FOB value of imports in the first 8 months of 2015 was equal to 1.1 bilion US dollars, of which 34.7% from Italy, 24.0% from China, 17.1% from Mexico, 9.0% from Spain, 4.7% from Turkey and 2.9% from Brazil. Compared with the first 8 months of 2014, the amount imported from Italy increased by 10.8% in value and by 12.9% in quantity.

In the future we can foresee that, because of the drop in value of the Euro, the volume of ceramic tiles imported from Europe will grow and that their market share will increase as a result.

If the construction market goes on growing as it did in the first part of 2015, consumption of ceramic tiles is expected to increase by over 10%.

WALGREENS FLAGSHIP STORE. Chicago (USA).

This article was taken from edition No. 4 (5th of May 2015) of the newsletter "Latest News from the United States" edited by Donato Grosser and Andrea Serri, together with additional data supplied by Donato Grosser.
The graphs were created by the US Department of Commerce and TCNA (Tile Council of North America).

Our special thanks go to Donato Grosser (President and Chief Consultant for D. Grosser & Associates Ltd.).

CORPORATE FITNESS THROUGH SPORTS, ART AND SUSTAINABLE GROWTH

A WORD BY THE PRESIDENT OF MAPEI CORP., THE GROUP'S US SUBSIDIARY

Fitness experts say that being active is a key to good health. At Mapei Corp. we are active in a number of areas. During 2015, we are continuing to support Mapei Group's sponsorship efforts in premier cycling events. Mapei was the Main Technical sponsor of the Road World Cycling Championships 2015, which was organized by the Union Cycliste Internationale (UCI). This is an unique Olympics-style tournament, featuring winning cyclists and teams from many countries. Mapei Corp. shares the winning style of these athletes: our corporate philosophy is based on the same determination, willingness to make sacrifices, teamwork and desire to excel.

Mapei Corp. is active in the arena of art as well as sports. In 2015, we continued our sponsorship of the Society of American Mosaic Artists. Mosaic artists are genuine "installers" who work on a miniature jobsite, using the same adhesives and grouts as the artisans in the tile and stone industry who work on much larger canvasses. We exhibited the works of 20 artists at The International Surface Event in Las Vegas in January and at Coverings trade fair in Orlando in April. All of their pieces incorporated Mapei FLEXCOLOR CQ ready-to-use grout as well as several different Mapei adhesives.

LUIGI DI GESO.
President of Mapei Corp and President and CEO of MAPEI Americas.

Another area where we have been active in the past year is the growth of our position in the US building industry. Already a leader in the flooring sector of the construction business, Mapei Corp. is now transforming other opportunities into healthy, sustainable growth. We have begun introducing more Concrete Restoration Systems from Mapei SpA, our parent company in Europe. We have integrated a number of our concrete admixtures and other building products into our new subsidiary, MAPEI/GRT (General Resource Technology), which joined the Group on May, 2015. We are also expanding the expertise of Mapei's Underground Tunneling Technology group into the Americas with a set of products specifically for this building sector.

» IN 2015 MAPEI CORPORATION IS DEMONSTRATING VIBRANT HEALTH AND FITNESS

Looking at all the ways we are growing and the activities we are involved in, I think Mapei Corp. is demonstrating vibrant health and fitness. We hope many clients will join us this year to grow the health and strength of their business too.

SURFACES

ABOVE. The Mapei booth at Surfaces 2015.
BELOW. The Mapei Corp.'s team supporting Surfaces 2015.

MAPEI PRODUCTS EXHIBITED TO LARGE AUDIENCES

The 2015 edition of Surfaces, a traditional North American exhibition for the flooring industry, was held in the spacious premises of 'The International Services Event' from 20th to 23rd January. Surfaces was hosted together with the StonExpo/Marmomacc Americas and TileExpo trade fairs inside the Mandala Bay Exhibition Centre in Las Vegas. 125,000 people from the industry were able to admire the latest market products displayed by over 700 exhibitors from over 80 different nations in an area of approximately 32,500 m².

Mapei took part in the event through its US subsidiary, Mapei Corporation, really feeding off the positive vibe. On Tuesday, before the TISE exhibits began, Mapei Corp. sales representatives and product managers participated in the 2015 INSTALL Leadership Conference. Contractors' interests centered on Mapei's surface-preparation products.

During the TISE exhibits, Mapei's live demonstrations of new products in its booth were even more popular than last year. The Mapei demo team showed visitors the benefits of new products and systems, including ULTRALITE S2 adhesive for thin ceramic tiles, SHOWERPERFECT system for tub-to-shower conversion, FLEXCOLOR CQ ready-to-use grout for joints, MODIFIED MORTAR BED thick-bed and render mortar, and the ULTRACOAT line for finishing and maintaining wooden floors. SHOWERPERFECT, FLEXCOLOR CQ, and MODIFIED MORTAR BED are manufactured and distributed on the US market by Mapei Corp.

Through life-sized application samples, attendees were able to touch and feel the wide array of products that were displayed both horizontally and vertically.

Mapei also featured the Society of American Mosaic Artists (SAMA) through a gallery in the company's booth, attracting attention from attendees and the media. Nida Khalil, a representative from SAMA, and artist Brian Felix spoke at Mapei Corp.'s annual press conference and were congratulated by Mapei Corp. and Mapei Americas President and CEO Luigi Di Geso. Also, Mapei's VIP hospitality event organized for the company's special clients was a big hit.

WORLD OF CONCRETE

DEMONSTRATIONS AND PRIZES FOR MAPEI PRODUCTS

Once again this year Mapei took part in the US trade fair World of Concrete, devoted to the concrete industry and all its technology, through its subsidiary Mapei Corporation. WOC was held in Las Vegas from 3rd to 6th February and was attended by about 56,000 professionals from the industry (compared to 48,000 in 2014) representing 1500 companies that displayed their products over an area of 62,000 m²: record-breaking figures for the last six years. There was an air of excitement and energy among the attendees, and Mapei Corp.'s booth was always busy as a result.

Mapei's live demonstrations of the ULTRATOP decorative concrete floor coatings, the ELASTOCOLOR wall-coating line and three PLANITOP products were very popular. Mapei personnel also participated in a demonstration of ULTRATOP PC polishable concrete topping with WerkMaster at its outdoor booth. The WerkMaster equipment was used to polish the ULTRATOP PC coating after it was poured and dried. Many attendees stopped by to see the multiple-day project and compliment the finished work. Mapei's new General Resource Technology, Inc. (GRT) subsidiary also exhibited at another booth in the North Hall of the Las Vegas Convention Center. Many people stopped to view the concrete admixtures on display at the booth and inquire about Mapei/GRT's products. During Mapei Corp.'s annual press conference at WOC, company representatives communicated Mapei's sponsorship of the UCI 2015 Road World Cycling Championship event held in Richmond, Virginia, from 19th to 27th September. The Mapei VIP hospitality event also proved to be quite popular.

GOLDEN TROWEL AWARD 2015

Ibermapei, the Group's Spanish subsidiary, also enjoyed considerable success at WOC, winning with Prosistemas the "Golden Trowel Award 2015". Ibermapei contributed (by supplying the MAPECRETE system) to building a concrete floor, which was laid by the company Prosistemas inside a warehouse in Guadalajara (Spain) and is judged to have the best planimetry in the world in its own specific category.

ABOVE. The Mapei Corp.'s team at WOC 2015.
BELOW. Mapei technicians performing product demonstrations at WOC 2015.

COVERINGS

SOLUTIONS, MOSAICS, DEMONSTRATIONS AND CONVENTIONS: ALL LAID ON BY MAPEI AT THE NORTH AMERICAN TRADE FAIR FOR CERAMIC TILES

Coverings, the biggest North American trade fair devoted to the ceramics and stone materials industry, could boast some quite amazing figures for its 2015 edition: thanks to over 25,000 visitors (including installers, designers, retailers, contractors, architects, etc.) and 1094 exhibitors from 41 nations, the figures were 10% higher compared to the 2014 edition.

Mapei, represented by its US subsidiary Mapei Corporation, had two separate booths at the event, both extremely popular with the general public.

At the "MAPEI Live!" booth, the Mapei Corp. Demo Team showed attendees how the company solutions are used.

At the product booth the company exhibited ECO PRIM GRIP primer for tile-over-tile installations, SHOWERPERFECT tub-to-shower conversion system, ready-to-use FLEXCOLOR CQ grout (both SHOWERPERFECT and FLEXCOLOR CQ are manufactured and distributed on the US market by Mapei Corp.) and several more of the company's latest tile and stone offerings. At the "MAPEI Live!" booth, the demo team showed attendees how the products are used.

The Mapei Corp. Demo team also participated in the Live Installation Demonstration Stage, sponsored by the Tile Council of North America. These how-to sessions offered attendees an up-close look at Mapei products in action.

Technical representatives and business managers from Mapei gave presentations during the educational conference sessions about "The Survivor's Guide to Eco-Technical Ceramic and Stone", "Large Formats: Thin Porcelain Tile" and "The Buzz Behind Linear Drain and Preformed Shower Drain Mania".

Brian Pistulka, Mapei Corp.'s Tile and Stone Installation Systems Business Manager, also spoke to the press and to contractors that came to the booth to hear the latest information and see the demonstrations of SHOWERPERFECT, FLEXCOLOR CQ and ECO PRIM GRIP.

The World of Mapei Gallery, created for Mapei by 20 members of the Society of American Mosaic Artists, was on display at the booth, too. These artistic creations were inspired by Mapei's iconic logo and various themes from the World of Mapei and were completed using the company products.

Once again this year the Mapei Group was a sponsor of "Piazza Ceramica" at Coverings. The stand representing Confindustria Ceramica, the Association of Italian Ceramic Tiles and Refractory Materials Manufacturers, took up an area of over 900 m^2 and was constructed out of Italian-manufactured ceramic tiles installed using Mapei solutions.

2015 CERAMICS OF ITALY TILE COMPETITION WINNERS

This awards program sponsored by Confindustria Ceramica promotes the excellence in the use of Italian ceramic tiles within architectural projects by North American designers and architects.

RESIDENTIAL ARCHITECTURE

1 Winner

Project: A contemporary Moody home

Designer: DKOR Interiors

Honorable Mentions

Project: Brooklyn Kitchen

Designer: Natalie Kraeim Interiors

Project: Hanes Residence

Designer: Tectonic Design

INSTITUTIONAL ARCHITECTURE

2 Winner

Project: Carlos Rosario International Culinary School

Designer: Shinberg Levinas Architects

Honorable Mentions

Project: ChristChurch Presbyterian

Designer: Gertler & Wente Architects

The buildings works at the Target Northern Campus at Brooklyn Park (Minnesota, USA) included the use of Mapei products.

COMMERCIAL ARCHITECTURE

3 Winner

Project: Target Northern Campus

Designer: RSP Architects

Honorable Mentions

Project: Bell Works

Designer: Alexander Gorlin Architects

Awardees, which were announced at Coverings on April 15, 2015, received 4000 US dollars and a trip to Bologna (Italy) to attend Cersaie trade fair on September 2015 as part of a VIP design/media delegation.

HOSPITALITY AT THE VERY HEART OF THE EVENT

The Mapei Hospitality Area - buzzing with VIPs, champions of the past, clients and Mapei fans throughout all nine days of the event - really was in the "very front line" this year, about 100 metres from the finish line. An ideal location allowing company guests to watch the athletes competing in the races from very close up. Some Mapei clients enjoyed the exciting opportunity of following the races directly out on the course in the organisation's official vehicles, on board with former cycling champions, who told them all about the riders and gave them a live commentary on the races. "It was a really exciting event for us and our guests", so Luigi Di Geso told us, President and CEO of Mapei Corp. and Mapei Americas (shown in the photo on the right together with the President of the UCI, Brian Cookson): "We got the chance to spend time with our clients and make friendships outside our usual work routine. It was surprising to note how many of our clients share Mapei's passion for cycling".

RICHMOND
MAPEI IS ALWAYS WORLD CLASS

MAPEI WAS UCI MAIN EVENT PARTNER AT THE 2015 ROAD WORLD CHAMPIONSHIPS

Cycling is winning over new fans and boosting its image in the USA partly thanks to Mapei, which supported the Road World Cycling Championships as a "UCI Main Event Partner". The Union Cycliste Internationale's (UCI - International Cycling Union) world championship races held in Richmond, USA, from 19th-27th September once again saw the company's blue-and-white corporate colours proudly displayed at the season's most important cycling event.
A tradition that is continuing with growing commitment and determination: Mapei was also the main sponsor for the Road World Championships held in Verona and Treviso (Italy) in 1999, Varese (Italy) in 2008, Mendrisio (Switzerland) in 2009, Melbourne (Australia) in 2010, Copenhagen (Denmark) in 2011, Valkenburg (Netherlands) in 2012, Florence and Tuscany (Italy) in 2013, and Ponferrada (Spain) in 2014. By supporting the World Championships, Mapei has once again confirmed that it has sport (and cycling in particular) in its DNA. Hard effort, steady team work and the determination to take on new challenges are values from the world of cycling characterising the company's corporate spirit, which is always focused on improvement as it strives to achieve more and more new targets. These are the same values embodied by the Mapei Sport Research Centre in Olgiate Olona (Italy), a facility created to provide rational scientific support based on a very definite ethical approach for athletes from various different sports, and a place where many of the riders who starred in the world championship races learnt their trade. We should not forget that the World Cycling Championships conjure up wonderful memories for Mapei, whose Professional Cycling Team won the World Championships with its riders Abraham Olano (1995), Johan Museeuw (1996), Oskar Camenzind (1998) and Oscar Freire (2001).

TOTAL COMMUNICATION

The event held in Richmond attracted worldwide attention resulting in a much greater return than expected in terms of corporate visibility. As usual, it was a resounding success in terms of communication aimed at enhancing the Mapei brand even further on an international level and reinforcing links between the company and all its numerous clients, friends and partners. Every year a Mapei subsidiary organises and manages a major event like the Road World Championships on its territory, working with great enthusiasm and commitment. A handing on of the baton that becomes an opportunity to show that "Mapei World" is not just a good advertising motto, but also sums up its corporate credo backed by a shared vision and enhanced by the distinctive traits of each individual country in which the company operates. Once again sponsoring the 2015 Road World Championships was also a question of location or of 'playing at home': one of Mapei's 10 industrial plants in the USA is located in

VISIBILITY BEYOND BORDERS

The Mapei brand was clearly visible for long stretches of the cycling races at Richmond 2015 in the form of banners, inflatable arches and backdrops for official ceremonies and press conferences. Clearly visible on the official cars and communications material, Mapei really did stand out at these Road World Championships in the USA. Inflatable arches bearing the Mapei logo and colours were the backdrop along the two decisive stretches of the road race route, where the riders fought for victory. Television channels all around the world also allocated plenty of time this year for this big event and Mapei's corporate blue and cubes were constantly on show. Important TV channels also broadcast the Mapei billboard stands and a special TV advert: on the Universal/NBC channel in the USA, on RDS (in French) and Rogers Sportsnet (in English) in Canada, and on the French network BeIN Sports. Mapei promoted its brand in Italy through a carefully planned and extensive campaign about the World Road Championships in the national dailies and sports papers, as well on the website www.mapei.it and the corporate profiles of leading social network. Across-the-board communication plans and passion for sport experienced as it happens all over the world: this is what Mapei is trying to achieve. Striving to always be right there where the heart of sport is beating most strongly.

THESE PHOTOS. Pictures of key moments in the race. Left: the Danish rider Mads Wurtz Schmidt won the Men Under 23 Individual TimeTrial.

CYCLING IS WINNING OVER NEW FANS AND BOOSTING ITS IMAGE IN THE USA PARTLY THANKS TO MAPEI

Fredricksburg, close to Richmond. This was an invaluable opportunity allowing Mapei Corp. (the US subsidiary of the Group) to take full advantage of Mapei's well-established relations with the Union Cycliste Internationale.

THE RACES

For the last four years, the Road World Championships have begun with the Team Time Trials. Both the Elite Men and Women had the same distance to cover: 38.6 kilometres. The Women's race was won by Velocio-Sram, a German-based team composed of Mieke Kroger, Karol-Ann Canuel, Alena Amialiusik, Lisa Brennauer, Trixi Worrack and Barbara Guarischi. Velocio–Sram won its fourth world team time trial in a row (the team used to be called Specialized-Lululemon) at an average speed of 48.660 km/h. The Boels Dolmans team (Netherlands) came second and the Rabobank team won the bronze. BMC (United States) won the Men's Team Time Trial as they did 2014 in Ponferrada, making it a double. The six-man team won at an average speed of 55.275 km/h. The BMC team was made up of Rohan Dennis, who was simply fantastic, Silvan Dillier, up-an-coming Stefan Kueng, Taylor Phinney and the Italians Daniel Oss and Manuel Quinziato. BMC finished 11" ahead of Etixx-Quick Step, the team that won the World Championships in 2012 and 2013; the Movistar team (Spain) with the Italian rider Adriano Malori came third at 30".

The first Individual Time Trial was the Women's Junior race. Much to the local crowd's delight the American girls dominated: Chloe Dygert came first and Emma White second. Dygert won the race at an average speed of 44.318 km/, 1'05" ahead of White. The Australian rider Anna-Leza Hull came third at 1'26". The Danish rider, Mads Wurtz Schmidt, won the Men's Under 23 Individual Time Trial over 30 km at an average speed of 48.248 km/h. In the end Maximilian Schachmann was 12" behind in second place and Lennard Kamma came third at 21", both from Germany. Germany won the Men Juniors Individual Time Trial race

thanks to Leo Appelt, who covered the 30 km at an average speed of 47.523 km/h, 17" ahead of Adrien Costa and 59" ahead of Brandom McNulty, both from the United States.

Linda Villumsen became the world champion in the Women Elite Individual Time Trial. Anne Van Der Breggen (Netherlands) won the silver medal, 3" behind the winner, and Lisa Brennauer (Germany) came third at 5".

Vasil Kiryenka from Bielorussia was the surprise winner of the Men Elite Individual Time Trial (53 kilometres) with Adriano Malori coming second at 9" and Jerome Coppel (France) third at 26". Malori's silver medal is the second Italy has won in the Men Elite Individual Time Trial after Andrea Chiurato (riding for Mapei-Clas) came second in Catania in 1994.

The road races took place over a 16.2 km course, including three climbs, one

WORLD CHAMPIONSHIPS MEDALS TABLE

Ranking	Nation				
1	USA	3	3	2	8
2	Germany	2	1	2	5
3	France	1	1	2	4
4	Denmark	1	0	1	2
	Austria	1	0	0	1
	Belarus	1	0	0	1
5	United Kingdom	1	0	0	1
	New Zealand	1	0	0	1
	Slovak Republic	1	0	0	1
10	Netherlands	0	3	1	4
11	Italy	0	2	0	2
12	Australia	0	1	1	2
13	Belgium	0	1	0	1
	Lithuania	0	0	1	1
14	Poland	0	0	1	1
	Spain	0	0	1	1
	Total	**12**	**12**	**12**	**36**

The winner of the Men's Elite Road Circuit Peter Sagan and the winners' podium. From left: Matthews (second), Sagan and Navardauskas (third).

over cobbles. First and second place in the Women's Juniors Road Circuit (64.8 kilometres, 4 laps) were the same as in the Individual Time Trial: first Chloe Dygert and second Emma White (at 1'23"). They were followed home by Agnieszka Skalniak (Poland), with 17-year-old Elisa Balsamo from Italy coming sixth at 1'41". Italy came very close to winning the Men's Under 23 Road Circuit (162.2 km; 10 laps) with Simone Consonni finishing second. The son of a former French professional cyclist, Kevin Ledanois, will get to wear the world champion's jersey. A triumphant race for France was completed by Anthony Turgis, who came third, with an angry Gianni Moscon finishing fourth after being held up by a minor incident 3500 m from the finish. Italy had to settle for fourth place in the Men's Under 23 Road Circuit thanks to Elisa Longo Borghini, who performed extremely well on a course that was not suited to her. The race was won by the English rider Elizabeth Armitstead, who outsprinted Anna Van Der Breggen from New Zealand, Megan Guarnier (USA), Elisa Longo Borghini, the relentless "diesel-powered" Swede Emma Johansson, the outstanding French rider Pauline Ferrand-Prevot, and the other riders in the main bunch. Everybody was surprised that the defending world champion Ferrand-Prevot failed to hold onto her title. After winning the gold medal in Ponferrada in 2014, the 23-year-old French rider became the world cyclocross champion in January 2015 and then won the world cross-country mountain bike championship in July. If she had managed to win in Richmond, she would have set a record that would have been extremely hard to equal.

The Women's Elite Road Circuit was 8 laps of the circuit for a total of 129.6 kilometres, just like the Men's Juniors Road Circuit, which was won by the Australian cyclist Felix Gall ahead of Clement Betouigt-Suire (France) and Rasmus Pedersen (Denmark).

The Slovak rider Peter Sagan was crowned the Men's Elite Road Circuit champion. Peter pulled off a masterpiece of power and tactical acumen. The professionals raced over a distance of 16 laps (259 km). Kanstantsin Siutsou and Tyler Farrar attacked 10 km from the finish. The peloton allowed them to gain a 10" advantage, but the breakaway ended on the first climb after the great cyclo-cross rider Zdenek Stybar made his move, one of the favourites to win the race. On the second climb Peter Sagan managed to break away gaining 50 metres on Philippe Gilbert and Edvald Boasson Hagen with the main bunch even further back. Sagan managed to accelerate yet again and increase his lead during the downhill stretch. All that had been missing from Sagan's prize records was a win in one of the "monument" races: now he is Slovakia's first ever world professional road champion. Peter finished 3" ahead of silver medallist Michael Matthews and Ramunas Navardauskas became the first Lithuanian to make the podium in a Men's Elite Road Circuit championship.

The USA finished top of the rankings for national teams after winning three gold medals, two silvers and two bronzes. Next year's Road World Championships will be held in Doha, Qatar, and Mapei will once again be at the very forefront.

MAPEI IN VIRGINIA

The Mapei Group, whose activities in the United States began back in 1983 when its subsidiary Mapei Corporation was first established, also operates in Virginia, one of the eastern states of the USA. This region, and more specifically in Fredericksburg, is where Mapei has one of its nine US plants. The manufacturing plant, which now covers an area of 5760 m², opened in 1996. Operations inside the plants are being constantly upgraded to guarantee greater efficiency and eco-sustainability. The first plastic packing unit was opened in 2008 and began operating in January 2009. Manufacturing has been operating on a 24-hour basis since 2013. The fact that Mapei has been operating in this region for so long meant that it was delighted to take the opportunity to be a Main Event Partner at the Road World Championships, which were held in the city of Richmond, Virginia, this year from the 19th to the 27th September.

A MAJOR RETROSPECTIVE EXHIBITION SUPPORTED IN PART BY MAPEI

SOLOMON R. GUGGENHEIM MUSEUM PRESENTS ALBERTO BURRI

From 9 October 2015 to 6 January 2016 the Solomon R. Guggenheim Museum in New York is presenting the exhibition *"Alberto Burri: The Trauma of Painting"*. This major retrospective exhibition—the most comprehensive Burri exhibition in the United States in nearly 40 years—showcases the pioneering work of the Italian artist and former army physician and prisoner of war Alberto Burri (1915–1995). Exploring the beauty and complexity of Burri's process-based works, the exhibition positions the artist as a central and singular protagonist of post-World War II art. Burri's work both demolished and reconfigured the Western pictorial tradition, while reconceptualizing modernist collage. Using unconventional materials, he moved beyond the painted surfaces and mark making of American Abstract Expressionism and European Art Informel. Burri's unprecedented approaches to manipulating humble substances—and his abject picture-objects—also profoundly influenced Arte Povera, Neo-Dada, and Process art. Burri is best known for his series of *Sacchi* (sacks) made of stitched and patched remnants of torn burlap bags, often combined with fragments of discarded clothing. Far less familiar to American audiences are his other series, which this exhibition represents in depth: *Catrami* (tars), *Muffe* (molds), *Gobbi* (hunchbacks), *Bianchi* (whites), *Legni* (woods), *Ferri* (irons), *Combustioni plastiche* (plastic combustions), *Cretti*, and *Cellotex works*. The artist is also famous for his *Grande Cretto* (Large Cretto, 1985–89), which is Burri's monumental work of Land art. It was built to commemorate an earthquake's destruction of the town of Gibellina in Sicily in January 1968. The Grand cretto was constructed by a team of local workers, who macerated the ruins and heaped them into blocks of white cement separated by walkways. It covers the old urban plan of the town, built on a hill, like a white shroud.

MAPEI ONCE AGAIN SUPPORTER

Mapei has renewed its relationship with the Guggenheim Museum by supporting the retrospective exhibition on Alberto Burri. The artist, who became famous for his own special technique by com-

IN THE FACING PAGE. External view of the Solomon R. Guggenheim Museum in New York.
LEFT. The Solomon R. Guggenheim Museum hosting Burri's masterpieces and, below, the exhibition invitation.
MIDDLE. Alberto Burri in his studio in Città di Castello (Italy).

Ph. Aurelio Amendola

bining collage and assemblage to create his works of art, often used polyvinyl acetate (PVA)—namely the brand Vinavil—as an adhesive. An example of this is a large painting located in the Santa Maria Novella Station in Florence. Because of its inherent connection to Burri's works, Vinavil (a Mapei Group's subsidiary) chose to join Mapei and the Group's American subsidiary, Mapei Corp., in supporting the Guggenheim exhibition. The project provides further confirmation of the special bond that has been consolidated over the years between the Mapei Group and the Guggenheim Foundation, both in the way the company played a role in supporting the renovation work on two important Guggenheim centres of art (the Peggy Guggenheim Collection in Venice and the Solomon R. Guggenheim Museum in New York), and through their support for cultural activities to underline Mapei's firm commitment to art and culture. Indeed, the Solomon R. Guggenheim Foundation owns and operates the Peggy Guggenheim Collection in Venice and the Solomon R. Guggenheim Museum in New York. Mapei's special relationship with the Guggenheim Foundation was formed in 2008 with the renovation work on the Solomon R. Guggenheim Museum in New York. The building, designed by Frank Lloyd Wright, presented many cracks caused mainly by aggressive atmospheric agents, and was upgraded by taking into account the need to maintain a certain level of elasticity in the surface of the building to prevent the formation of new cracks. For further details on the works see *Realtà Mapei International* no. 27. Since 2008, Mapei has also been involved in the Intrapresæ Collezione Guggenheim of the Peggy Guggenheim Collection in Venice.This premier and renowned Italian program in support of a private museum involves the most important national and international companies. Sponsors include companies that share a passion for art and believe in investing in support of culture, as reflected by their attention to cultural projects and social responsibility. In 2009 Mapei was involved in the restoration of Palazzo Venier, which houses the Peggy Guggenheim Collection in Venice. Mapei provided products free-of-charge for the renovation of the facades overlooking the Grand Canal and the Rio Torreselle, the entrance to the museum (see *RM International* no. 31). Mapei then sponsored an exhibition in 2012 entitled *"Cycling, Cubo-futurism and the Fourth Dimension: Jean Metzinger's 'At the Cycle-Race Track'"* organized by the Peggy Guggenheim Collection in Venice to pay tribute to the winner of the 1912 Paris-Roubaix cycling race (see *RM International* no.40), a race to which Mapei is particularly connected. In 2014 the company contributed as technical sponsor of the exhibition *"Themes & Variations: The Empire of Light"*, a curatorial formula devised in 2002 by Luca Massimo Barbero for the art works and spaces at the Peggy Guggenheim Collection, which was held from February 1 to the April 14 at Palazzo Venier in Venice. Later that year, Mapei contributed to the renovation of the Museum Café, providing products for painting the walls of the dining facility (see *RM International* no.48).
Mapei has always been an enthusiastic supporter of the conservation of artistic heritage, supplying products and expertise for renovation work on the great sites of Italian and international culture, and plays an important role in promoting the culture that has always been a cornerstone of the company's philosophy.

FLUME ROAD BRIDGE REPAIR IN JACKSONVILLE, USA

CUTTING-EDGE PRODUCTS FOR MAINTAINING AND REPAIRING A BRIDGE OVER A RIVER

Jacksonville Electric Authority (JEA), created by the City of Jacksonville (Florida, USA) to serve the city and surrounding communities, provides electric, water and sewer services while protecting the area's natural resources. One of the generating plants owned by JEA, the Northside Generating Station (NGS), reportedly "uses natural gas, fuel oil, coal and petroleum coke to produce more than 1300 MW of peak electric capacity (...) and is among the cleanest solid fuel plants in the world", JEA states.

As part of a project to maintain NGS, Mapei was asked to propose a repair solution using FRP (fibre-reinforced polymer) composite materials. The repair would strengthen the bridge beams and pile caps on the flume road bridge that spans Nichols Creek and links the generating station to raw-materials barges from the Jacksonville Port Authority.

Deterioration over time had caused the bridge beams to torque, and they needed structural reinforcement. The project was challenging due to the extent of the damage in the concrete structure, difficult access to the repair area, an aggressive environment, low clearance between the repair area and the water, and environmental regulations.

MAPEI PRODUCTS AT WORK

The project consisted of repairs and structural strengthening of 63 beams, each 0.6 x 0.6 m and 4,57 m long. Repairs were also made to 64 pile caps that were each 1.52 x 1.52 x 0.61 m thick, 15 of which had to be reconstructed due to the extent of deterioration. The first step in the repair process was the removal of deteriorated concrete and the cleaning of corroded rebar that was exposed. The rebar was then coated with PLANIBOND 3C, which acts as a corrosion inhibitor and as a bonding agent for repair materials. In areas where there was no exposed rebar, PLANIBOND EBA was used as the bonding agent. In areas where deterioration was less than 10 cm deep, the concrete repairs were made with PLANITOP X and PLANITOP XS mortars. For those caps and beams that had extensive deterioration, PLANITOP 15 mortar was used, which is well suited where high early strength and flowability are required. Once repairs to the beams and pile caps were complete, the second phase of operations involved structural strengthening with Mapei's FRP system. CARBOPLATE E 170 pultruded carbon fibre plate was applied in four locations along the

LEFT. Repairing the concrete piles with products such as PLANITOP X and PLANITOP XS.
BELOW. Structural strengthening was carried out using the MAPEWRAP SYSTEM.

IN THE SPOTLIGHT

MAPEWRAP C UNI-AX

It is a mono-directional carbon fibre fabric characterised by a high modulus of elasticity and high tensile strength. It is suitable to repair reinforced concrete elements damaged by physical-mechanical action, for the confinement of axial loaded or bent concrete elements and for seismic strengthening of structures in earthquake zones. MAPEWRAP C UNI-AX may be laid using both a wet system and a dry system.

length of each beam: one strip along the inside face, one strip along the outside face and two strips along the bottom. Next, MAPEWRAP C UNI-AX carbon fibre fabric was applied in 19 mm wide strips in stirrup fashion at 61 cm centers along the full length of the beam. Then, the entire beam was encapsulated with MAPEWRAP C UNI-AX 300. For the 64 piles, two layers of MAPEWRAP C UNI-AX 300 were wrapped around the circumference of one end, and one layer was wrapped horizontally around the entire pile. The epoxy system used for setting CARBOPLATE E 170 and MAPEWRAP C UNI-AX 300 included MAPEWRAP PRIMER 1, MAPEWRAP 12 and MAPEWRAP 31. MAPEWRAP PRIMER 1 two-component epoxy primer was used as a seal coat for consolidating and priming the concrete substrates. MAPEWRAP 12 two-component, slow-setting, thixotropic epoxy grout was used as an adhesive for the CARBOPLATE composite system. MAPEWRAP 31 two-component, medium-viscosity epoxy adhesive was used for impregnating the MAPEWRAP system fabrics using a "dry system". As a final touch to the system, MAPEFLEX P1 SL was used as a joint sealant for expansion joints on the bridge deck, and PLANITOP 15 was used to restore the edges of the joints. All the above-mentioned products are manufactured and distributed on the US market by Mapei Corp, except for MAPEWRAP C UNI-AX, MAPEWRAP PRIMER 1, MAPEWRAP 12, and MAPEWRAP 31, which are also available on the international market.

This article was taken from *Realtà Mapei Americas*, no. 21, the in-house magazine published by Mapei Americas, whom we would like to thank.

TECHNICAL DATA
JEA Northside Generating Station, Jacksonville (Florida, USA)
Year of Construction: 1964
Period of the Mapei Intervention: 2014
Intervention by Mapei: supplying fibre-reinforced-polymer (FRP) products for structural strengthening and concrete restoration products to repair pile caps and beams
Client: JEA
Concrete Repair Contractor: Premier Corrosion Protection Services, Inc.
Mapei Distributor: Premier Corrosion Protection Services, Inc.
Mapei Co-ordinator: Carlos Hernandez, Mapei Corp. (USA)

MAPEI PRODUCTS
Concrete repair: Planibond 3C*, Planibond EBA*, Planitop X*, Planitop XS*, Planitop 15*
Structural strengthening: MapeWrap Primer 1, MapeWrap 12, MapeWrap 31, Carboplate E 170*, MapeWrap C UNI-AX, Mapeflex P1 SL*

*These products are only manufactured and distributed on the US market by Mapei Corp (USA).

For further information on prdoucts see www.mapei.com and www.mapei.us

UNIVERSITY OF MIAMI

ADDING TASTEFUL FLOORING IN UNIVERSITY'S EATERIES

When students returned to the University of Miami campus in the autumn of 2014, they found a bounty of healthy new dining choices. As part of the University of Miami's Dining Master Plan, the Hurricane Food Court in the Whitten University Center and the Hecht-Stanford Dining Hall had been totally renovated during the summer. It now provides a restaurant-type experience with the focus on healthy foods. An athletic "training table" is also housed at Hecht-Stanford, providing a place for athletes to practice fitness through good nutrition.

A PROPER SUBSTRATE PREPARATION

The substrates relative humidity was found to be far above acceptable limits for installing floor coverings; as a result, the substrates were coated with PLANISEAL VS coating. PRIMER T and NOVOPLAN 2 PLUS self-leveling underlayment were then applied to level the floors. MAPELASTIC CI waterproofing compound was used for crack isolation where needed.

PLANIPATCH and PLANIPATCH PLUS smoothing compounds were used where any small patches were needed, and the substrates of the bathroom walls were waterproofed with MAPELASTIC AQUADEFENSE membrane.

In the Hecht-Stanford Dining Hall, rubber flooring was installed in the weighing area of the athletic training table dining area using ULTRABOND ECO 570 adhesive. ULTRABOND ECO 575 adhesive was used wherever cove base was needed. For the main floor area of the athletic training table, carpet tile was installed with ULTRABOND ECO 885 adhesive. ULTRABOND ECO 885 was also used to lay plank carpet tile in the general seating area.

Vinyl tile in the "pantry" breakfast nook was bonded with ULTRABOND ECO 360 adhesive. The bamboo in the center of the general dining area and the engineered bamboo in all areas surrounding the carpet tiles were installed with ULTRABOND ECO 985 adhesive.

Quarry tiles were bonded with gray ULTRAFLEX 2 adhesive and joints were grouted with KERAPOXY CQ epoxy grout. All floor tiles in the dining hall were set with white ULTRAFLEX LFT mortar, while the tiles on the walls were bonded with ULTRAFLEX LFT. TYPE 1 mastic was used to install green glass mosaics on the front of a counter space within the dining hall. The joints on the floor were grouted with KERACOLOR S grout. The joints of the wall tiles, as well as those of the mosaics on the restroom walls, were grouted with KERACOLOR U grout.

In the Hurricane Food Court, ULTRABOND ECO 360 was used to install the LVT and the vinyl plank; ULTRABOND ECO 810 was used to install carpet tiles in the food court; ULTRABOND ECO 885 was used for the carpet tiles throughout the seating areas in the food court. ULTRABOND ECO 995 was used for the vertical wood installation. All LVT coverings were installed with ULTRABOND ECO 711 adhesive. The quarry tiles in the food court were

PHOTO 1. Carpet tiles were bonded with ULTRABOND ECO 885.
PHOTO 2. Mosaic tiles were bonded with ADESILEX P10 and the joints were grouted with ULTRACOLOR PLUS.
PHOTO 3. ULTRABOND ECO 985 was used to install the bamboo floors.
PHOTO 4. Ceramic tiles were bonded with ULTRAFLEX LFT and the joints were grouted with KERACOLOR S or KERACOLOR U.

IN THE SPOTLIGHT

KERAPOXY CQ

It is a two-component, acid-resistant epoxy grout, ideal for grouting ceramic tiles and mosaics. It is ideal for use in the foodstuffs industry, shops and environments where a high level of hygiene is required. KERAPOXY CQ protects joints against the formation and proliferation of micro-organisms. Its BioBlock technology prevents the proliferation of bacteria and mould on the surfaces of grouts. It can contribute up to **4 points** to obtain **LEED** certification.

also bonded with ULTRAFLEX 2 and joints were grouted with KERAPOXY CQ. The wall tiles and floor tiles were installed with ULTRAFLEX LFT too. At the food court joints were grouted with ULTRACOLOR PLUS grout. Matching KERACAULK S sanded caulk and KERACAULK U grout were used as needed on seams and expansion joints.
The glass tiles used to form a backdrop for the "water bar" in the food court were bonded with ADESILEX P10 adhesives and the joints were grouted with ULTRACOLOR PLUS.
All the mentioned products, except for MAPELASTIC AQUADEFENSE, PLANIPATCH, KERAPOXY CQ, ULTRABOND ECO 575, and ULTRACOLOR PLUS (which are also available on the international market), are manufactured and distributed on the US market by Mapei Corp.

This article was taken from *Realtà Mapei Americas,* no. 21, the in-house magazine published by Mapei Americas, whom we would like to thank.

TECHNICAL DATA
University of Miami Dining Facilities: Miami (Florida, USA)
Design: Nvironment Architecture LLC
Period of Construction: 2014-2015
Period of the Mapei Intervention: 2014-2015
Intervention by Mapei: supplying products for substrate preparation and the installation of bamboo, ceramic tiles, porcelain tiles, mosaics, carpet tiles, and vinyl tiles.
Client: University of Miami
Project Manager: Brian Estes – Certified Floorcovering Services, Inc.
General Contractors: JDL Warm Construction, LLC; Terstep Construction, Inc.
Ceramic Tiles Installing Company: Certified Floorcovering Services, Inc.
Surface-preparation Products Installer: Professional Surface Installations
Mapei Distributor: Carpet Cushions & Supplies, Inc.
Mapei Co-ordinator: Tyler Barton, Mapei Corp. (USA)

MAPEI PRODUCTS
Substrate preparation: Planiseal VS*, Primer T*, Novoplan 2 Plus*, Planipatch, Planipatch Plus*, Mapelastic CI*
Waterproofing substrates: Mapelastic AquaDefense
Laying carpet, vinyl and wood coverings: Ultrabond ECO 360*, Ultrabond ECO 570*, Ultrabond ECO 575, Ultrabond ECO 711*, Ultrabond ECO 810*, Ultrabond ECO 885*, Ultrabond ECO 985*, Ultrabond ECO 995*
Laying porcelain tiles, glass mosaics and quarry tiles: Ultraflex 2*, Ultraflex LFT*, Adesilex P10, Type 1*, Kerapoxy CQ, Keracaulk*, Keracaulk U*, Keracolor S*, Keracolor U*, Ultracolor Plus
*These products are manufactured and distributed on the US market by Mapei Corp (USA).
For further information on products see www.mapei.com and www.mapei.us

PRODUCTS WINNING ALL OVER THE WORLD

From the 18th to the 21st of March, 2015, Mapei took part in Made Expo 2015 – Milan Architecture Design Building trade fair – that took place in Fiera Milano Rho, Milan.
With over 208,000 visitors and 1,450 exhibitors (including 279 from overseas), the show has played a key role in breathing new life into a sector of crucial importance for the global economy. In spite of the decrease in Russian and Ukrainian visitors, the show still attracted 36,103 trade operators from all over the world.
The decision to welcome non-trade visitors to the show on the last day was also spot on: thousands of people grasped the chance to tour the gigantic showroom and check out the latest ideas for upgrading their homes with quality products.

A TEAM OF CHAMPIONS

Rapid team play, a solid defence, a rapid attack, versatility and a clear vision for the game: these qualities are the hallmark of true champions from the world of football. And they are the same characteristics that set Mapei products apart in the world of building.
Comparing Mapei with the world of sport comes naturally and today this parallel is best represented by the success of the players of Sassuolo Calcio, the team with the Mapei emblem that for the last three years has been playing in Serie A, the top flight in Italian football.
"Our products are our champions" was Mapei's main slogan at Made Expo 2015. Indeed Mapei plays a 360° role in all the most important projects in the world. Choosing Mapei offers the advantage of interfacing with just "one single representative on site": which means being able to decide quickly on the most efficient integrated solutions to adopt.
The Mapei stand, extending over an area of approximately 600 m^2 and divided onto two floors, was designed to be a meeting place for all those operating in the sector, from manufacturers to designers and installers, right down to the end user.
The "World of Mapei" had a rich gallery of images – with the most recent international projects, certified eco-sustainable according to the highest international standards – alongside meetings with all the key players in the building industry to present the entire range of solutions that make up the 15 Mapei product lines.
Mapei also had their own space and technicians at Made Expo on the AVISA stand, an association that represents Italian manufacturers of adhesives, sealants, silk-screen inks, paints and varnishes.

EXPO 2015: PRODUCT SYSTEMS FOR THE FOOD & DRINKS SECTOR

"Feeding the Planet, Energy for Life": Mapei is behind the theme of Expo 2015 by proposing product systems for the food & drinks sector. Cutting-edge, eco-sustainable solutions, an integral part of a process aimed at guaranteeing the authenticity of food and drinks. A booklet called "Mapei systems for the food and drinks industries" is now available, as well as a website devoted to the same subject.

FAST TRACK READY TECHNOLOGY

Showcased at Made Expo was also the FAST TRACK READY SYSTEM, a technology developed by Mapei to accelerate

LEFT. Mapei solutions for the food and drinks industry were in the spotlight at Made Expo.

every phase of building work. Depending on specific site requirements and the type of material to be installed, Mapei offers a wide range of Fast Track Ready products.

CONCRETE REPAIR

Amongst the products showcased at Made Expo 2015 for repairing concrete is PLANITOP SMOOTH & REPAIR R4 fibre-reinforced, rapid-setting thixotropic cementitious mortar for structural repairs and smoothing concrete. It is particularly recommended for repairing internal and external horizontal and vertical concrete surfaces and is suitable for structures exposed to the open air or in permanent contact with water.

RENOVATING MASONRY BUILDINGS

Other products in the spotlight at Made Expo 2015 include the MAPE-ANTIQUE line: cement-free, Eco-Pozzolan-based products particularly recommended for the structures of historic buildings, but ideal also for new builds.

In this product line one finds MAPEWALL MURATURA FINE, a high performance, natural hydraulic lime-based transpirant building mortar with very low emission level of VOC for internal and external building work, "reinforced" building work and patching and plumbing stone, brick, tuff and mixed load-bearing walls and buffer walls, including those of historical or artistic value.

MAPEWALL MURATURA FINE is recommended for building new load-bearing walls and buffer walls and for rebuilding existing walls, including in seismic zones, and for making building mortars and "reinforced" mortars for consolidating and strengthening weak existing walls.

MAPEPUR POLYURETHANE FOAMS

Buildings are made up of numerous different elements and gaps and breaks are formed when they are put together. To improve the insulating and soundproofing properties of a building, it is important that these gaps are eliminated with filler material, otherwise they could become the source for thermal bridges.

Polyurethane foam is practical and easy to use and is the ideal product to insulate buildings from heat, cold and noise.

Mapei's range of four products now makes it easier for end users to choose the right product. Available in gun application or hand-held spray can versions, they meet the requirements of all craftsmen and professionals working in the building industry:

- MAPEPUR UNIVERSAL FOAM multi-purpose foam
- MAPEPUR ROOF FOAM for roofing work
- MAPEPUR FIRE FOAM fire-resistant foam
- MAPEPUR CLEANER for polyurethane foam.

GROUT SELECTION, THE EVOLUTION OF COLOUR

One of the new offers highlighted at Made Expo was Grout Selection, the colour chart for grouting mortars. A choice of 14 colours, 7 new and 7 from the existing colour range, for any ceramic, terracotta, stone material or mosaic wall or floor covering. They are particularly suitable for grouting "natural effect" and "wood effect" tiles. The new colours are available for grout-

LEFT. At Made Expo Mapei also displayed several solutions for installing and finishing wooden floors. ULTRABOND ECO S968 1K adhesive was in the spotlight.

ing products with the cementitious version of ULTRACOLOR PLUS and the epoxy version of KERAPOXY DESIGN.

BONDING WOODEN FLOORS

Mapei also presented the new, one-component high performance adhesives ULTRABOND ECO S968 1K, suitable for any type and format of wooden flooring on any type of substrate, including heated floors, and ULTRABOND ECO S948 1K with good workability, ideal for all types of layered flooring and solid wood.

RAPID, ECO-SUSTAINABLE INSTALLATION OF RESILIENT MATERIALS

In the spotlight at Made Expo 2015 also ULTRAPLAN FAST TRACK, the self-levelling, ultra rapid-drying skimming/smoothing compound for layers from 1 to 10 mm thick, and ULTRABOND ECO 550 strong, rapid adhesive with very low emission level of volatile organic compounds, ideal for all types of linoleum.

LIGHT, TOUGH AND ECO-SUSTAINABLE PRODUCTS FOR BONDING CERAMIC TILES

Mapei Research develops advanced products that are always in step with the times such as the new ULTRALITE FLEX from the ULTRALITE family, a light yet tough adhesive for all your routine bonding needs. From the same family are ULTRALITE S1 QUICK and ULTRALITE S2 QUICK one-component, high-performance, deformable, lightweight, rapid-setting and hydrating cementitious adhesives. The latter has a longer open time.

NEW COATING PRODUCTS

Two new products were displayed at Made Expo 2015 from Mapei's Protective and Decorative Coating Line. DURSILITE PLUS is a hygienising, transpirant, washable water-based paint, resistant to mould, for internal walls. It is ideal for old, new and painted internal surfaces and gives substrates an attractive, smooth, matt finish with low dirt retention.
QUARZOLITE HF PLUS is an acrylic hygienising paint with quartz, with BioBlock® technology, for internal and external surfaces. It is ideal for painting walls in areas where climatic conditions encourage the growth of mould.

A NEW ENTRY FOR THE MAPETHERM RANGE

A new product from the MAPETHERM line for thermal insulation for buildings was presented at Made Expo 2015: MAPETHERM FLEX RP elastic, lightweight, fibre-reinforced, cement-free levelling mortar, resistant to attack from aggressive biological agents, with Fast Track Ready technology. It is available in two sizes and is the perfect solution for reinforced skim coats on insulating panels and thermal insulating systems. It may even be used for renovating damaged insulating systems.

Keraflex® Maxi S1 zerø*

MAXI PERFORMANCES. **ZERO** IMPACT.

Leader in high performance, **zero** impact cementitious adhesive for ceramics.

1 ZERO CLIMATE-CHANGE EFFECT

Keraflex Maxi S1 zerø is the first adhesive with **residual greenhouse gas emissions that have been eliminated** through **certified offsetting**.

2 HIGH PERFORMANCES

S1 No vertical slip, extended open time, can be applied in layers layers up to 15 mm thick, easy to spread, highly deformable.

3 CERTIFIED EC1 R PLUS

Very low emission level of volative organic compounds.

4 LOW DUST

Developed with a technology which considerably reduces dust emission during mixing phase.

* | *Keraflex Maxi S1 zerø is only available in grey colour.*

Mapei and the CARBON FOOTPRINT project

MINISTERO DELL'AMBIENTE E DELLA TUTELA DEL TERRITORIO E DEL MARE

KERAFLEX MAXI S1 ZERØ LIFE CYCLE HAS BEEN ASSESSED INSIDE THE **NATIONAL PROGRAM FOR THE CARBON FOOTPRINT ASSESSMENT**, THANKS TO THE CO-FUNDED PROJECT OF ITALIAN MINISTER FOR ENVIRONMENT, LAND AND SEE PROTECTION (MATTM). THE CARBON FOOTPRINT OF KERAFLEX MAXI S1 ZERØ HAS BEEN STUDIED, AND RESULTS HAVE BEEN VALIDATED ACCORDING TO ISO/TS 14067. For more details: http://www.mapei.com/IT-IT/carbon-footprint.asp

Product info

/mapeispa

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

MAPEI®
ADHESIVES · SEALANTS · CHEMICAL PRODUCTS FOR BUILDING

POLYGLASS AT MADE EXPO

Polyglass S.p.A, Mapei Group's subsidiary, is one of the leading European manufacturers of waterproofing membranes with solutions made using cutting edge technology to meet all kinds of waterproofing needs. "Adding value" is the mission the company has been following over the course of its almost 50 year history, investing constantly in research and development. Scientific research and its commitment to offer solutions that are always new, simple and efficient are the driving force behind the company's growth on the international market; which is why, along with conventional flame-applied membranes, Polyglass offers ultra-lightweight membranes, self-adhesive membranes and synthetic membranes.

POLYGLASS AT MADE EXPO TRADE FAIR

• Adeso® self-adhesive membranes

Hundreds of visitors to the Polyglass stand at Made Expo were given the chance to watch real, practical demonstrations of how to apply the Adeso® self-adhesive membranes and see for themselves their advantages.

The Adeso® self-adhesive membranes are the most innovative bitumen waterproofing product in the sector. They comply with all the requirements regarding safety, ease of application and versatility typical of modern construction technology, while ease of application on delicate structures such as wood, sound and solid application on insulating panels sensitive to fire and the simple maintenance work required on the finished waterproof membrane are just a few of the advantages of the self-adhesive system offered by Polyglass.

Self-adhesive membranes with Adeso® technology are applied on surfaces without the use of flames. Application of products with Adeso® technology is both quick and simple and, thanks to its monosiliconated release film and accurate butting of adjacent sheets, it is safer and simpler to apply the membrane and its finish is extremely pleasing to the eye. Adeso® self-adhesive membranes are eco-friendly, with no irritating smoke, odour or noise given off during application.

The line includes membranes in SBS (styrene butadiene styrene) and APP (atactic polypropylene), as well as double-adhesive bituminous membrane vapour barriers, a non-slip waterproofing layer under roof tile and mem-

POLYGLASS FOR MILAN

POLYGLASS SUPPLIED PRODUCTS AND KNOW-HOW FOR VARIOUS PROJECTS AT EXPO 2015 AND THE CITY OF MILAN

Inside the Expo Milano 2015 exhibition site, the roofs of the Zero Pavilion and the Expo Centre were waterproofed using MAPEPLAN M waterproofing membranes, while construction of the pavilions representing Spain, Kuwait, Brazil and Hungary all included the use of MAPEPLAN TM and MAPEPLAN B. As far as the new infrastructure projects were concerned, Polyglass

branes with an HDPE (high density polyethylene) finish for use on retaining walls.

• Reoxthene Technology®

Thanks to their patented Reoxthene Technology® system, Polyglass also produces bitumen membranes up to 40% lighter than conventional ones. Reoxthene membranes make handling safer and more simple on site and offer a longer service life. A "green roof" made using Reoxthene membranes was on display for visitors to the trade fair.

• Mapeplan synthetic membranes

There was also a large display area dedicated to waterproofing solutions using MAPEPLAN synthetic membranes (in PVC and FPO), particularly recommended for waterproofing large areas in the civil and commercial building sectors. Visitors to the stand showed particular interest in the stratigraphic layout of the "green roof" made using MAPEPLAN TB. The stand also included a display of waterproofing solutions for flat roofs and for mounting photovoltaic units using MAPEPLAN TM, systems for foundations and rooms below ground level using MAPEPLAN UG, and man-made storage tanks/basins using MAPEPLAN T WT, a non-toxic product suitable for contact with drinking water.

ABOVE. The demonstration area devoted to Adeso® products in the Polyglass stand.

• Special products

The Polyglass range on display at Made Expo was completed by their "Special Products" section, special materials used alongside conventional polymer-modified distilled bitumen membranes. The new line includes specially developed liquid and paste products that may be used to overcome problems in various waterproofing situations where the application of a polymer-modified distilled bitumen membrane would be difficult or even impossible. The "Special Products" line comprises glue, mastic and special fixing primers to improve adhesion of bitumen membranes; liquid and paste bitumen and acrylic membranes; protection and drainage systems for waterproofing work; protective paints for bitumen membranes; glues for sealing purposes; bituminous conglomerates for repairing road surfaces; protective under-roof bitumen sheeting; bitumen tiles; transpirant membranes; accessory items for flat roofs and application tools and equipment.

ECO-SUSTAINABILITY AT POLYGLASS

Polyglass is active in the research and development of products capable of improving energetic efficiency in addition to having a low impact on the environment. Polyglass products can contribute in the collection of credits for the Leed certification of buildings.

The UNI EN ISO 9001: 2008 and UNI EN ISO 14001: 2004 certifications and the product marking in compliance with the EN 13707, EN 13969 and EN 13956 regulations are the proof of Polyglass' commitment to the continuous improvement of the performances with regards to pollution prevention and the protection of health and safety in the workplace.

Production processes at Polyglass respect the environment and adopt sustainability criteria.

products were used on the TEEM (Milan eastern outer ring-road), the BreBeMi motorway, the Treviglio-Brescia high-speed railway line, the Zara-Expo tunnel, Line 5 of the Milan metropolitan rail network and the Rho-Monza link road. Polyglass solutions also found their rightful place on buildings that have changed the Milan skyline, such as the Vertical Wood and the Porta Nuova skyscrapers.

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LOUIS VUITTON FOUNDATION IN PARIS

A CUTTING-EDGE BUILDING SET TO BECOME AN ICON OF MODERN ARCHITECTURE

Set amongst the magnificent surrounds of the Bois de Boulogne park in paris, October 2014 saw the inauguration of the Louis Vuitton Foundation by the President of France François Hollande and Bernard Arnault, Chairman and CEO of LVHM (Louis Vuitton Moët Hennessy). Commissioned by the famous French fashion house, it was designed by Frank O. Gehry, the man behind the Guggenheim Museum in Bilbao. Characterised by its curves, waves and a spiral movement typical of the Canadian architect, the construction is a genuine work of open-air modern art and reminds us of the form of a sailing ship. Glass, wooden and steel panels cover an area of 11,000 m^2 dedicated to a celebration of contemporary art, 7,000 of which are open to the public. Its spaces have been designed down to the finest detail, starting from the eleven exhibition halls and galleries with a permanent exhibition of modern and contemporary art, as well as areas for temporary exhibitions.
It has taken more than six years to build the structure but, as Frank O. Gehry went on to explain, "The thing that inspired me was the idea of constructing a glass building in the Bois de Boulogne otherwise it may well have seemed too invasive. We had to create something unearthly while at the same time consider the restrictions and limits to the size we had been set, but once we presented the design everyone was behind us and it was approved. It was expensive, true, but it really was the only way".

A FUTURISTIC DESIGN

Situated in the northern part of the Bois de Boulogne, the so-called Jardin d'Acclimatation – an antique theme park extending over 20 hectares inaugurated in 1860 by Napoleon III – the Louis Vuitton Foundation is a modern interpretation of a 19th century crystal palace.
The building is clad with elements that are unique in their design, thanks to the use of advanced 3D technology such as software designed by Gehry Technologies based on the Catia programme used in aeronautics. The Canadian architect's design studio worked on the Paris building site alongside several French design studios specialised in glass structures.
At the edge of the water garden, there is a complex

system of shields to “hide” the central block, where the Foundation’s permanent exhibition is on show in the eleven galleries, as well as an auditorium with its own stage.
Installation of the 19,000 Ductal® panels in precast high-performance fibre-reinforced concrete, and 3,600 glass buffering elements with embedded micro-perforated metal mesh, had to be designed to suit. These elements, together with the special design of their assemblies and special conformation of the gluelam that hold up the stratified glass, were the core part of the research work for this building.
The Louis Vuitton Foundation was also a pilot project to adapt a HQE standard (or Haute Qualité Environnementale) for service and cultural facilities, which involves selecting materials that have a low impact on the environment and balanced carbon emissions into the atmosphere. Rainwater is collected and used to clean the twelve glass sails and irrigate the park and garden areas. Geothermal energy is used to heat and cool the building, exploiting deep aquifers where the water flows at a constant temperature of around 13 °C. A closed circuit draws the water up and passes it through a heat exchanger, after which it heats up or cools down water running in secondary circuits throughout the building to cooling units and underfloor heating systems.

INSTALLATION OF WOOD AND CERAMIC IN A PLACE OF ART

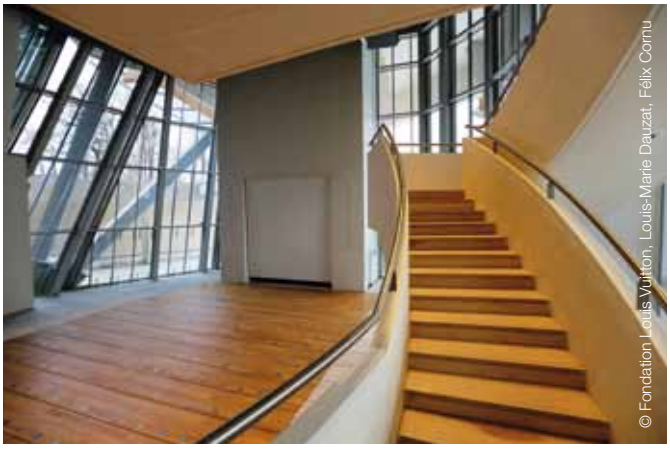
Illuminated by natural light filtering through the side windows, the amphitheatre-style Auditorium (900 m^2 of surface area) has a modular configuration that can host from 350 to 1,000 people, depending on requirements. The Auditorium has oak parquet floorings installed using Mapei products with an anti-damp barrier to guarantee its durability over the years.
The first step was to treat the surfaces with two coats of PRIMER MF two-component, solvent-free epoxy primer used for consolidating and waterproofing against residual damp on cementitious substrates and as anti-dust impregnator on concrete floors. The surface was then broadcast with QUARTZ 1.2 silica sand as PRIMER MF and QUARTZ 1.2 are part of the SYSTEME BARRIERE MF anti-rising damp system by Mapei France. This anti-damp barrier was considered necessary before installing the specified wooden flooring, made up of solid 20 mm thick oak planks measuring 180 mm in width and 2,100 and 2,410 mm in length.
After vacuuming off the excess quartz sand, the surface was levelled with PLANO 3 fast hardening (24-48 hours) self-levelling smoothing compound for thicknesses from 3 to 10 mm, especially suitable for pump applications. This product allows for high daily productivity rates and considerably reduces substrate preparation

IN THE SPOTLIGHT

ULTRABOND ECO S948 1K

It is an one-component, sililated polymer-based adhesive without water, solvents, amines and epoxy resin, with very low emission level of volatile organic compounds (EMICODE EC1 R Plus-certified).
ULTRABOND ECO S948 1K is used for bonding multi-layer pre-finished parquet on cementitious screeds, screeds made using MAPECEM, MAPECEM PRONTO, TOPCEM, TOPCEM PRONTO and similar products, old wooden floors, ceramic, marble, terrazzo, etc. and anhydrite screeds. It is also suitable for heated substrates.

LEFT. A view of the building designed by Frank O. Gehry.
BELOW. The building site of the Louis Vuitton Foundation in December 2012.
RIGHT. A window with a view on the outdoor garden.



ABOVE. ULTRABOND ECO S948 1K adhesive was used to bond the wooden floor in the Auditorium.
LEFT. The floor substrates in the Auditorium were treated with PRIMER MF and QUARTZ 1.2 and skimmed with PLANO 3.

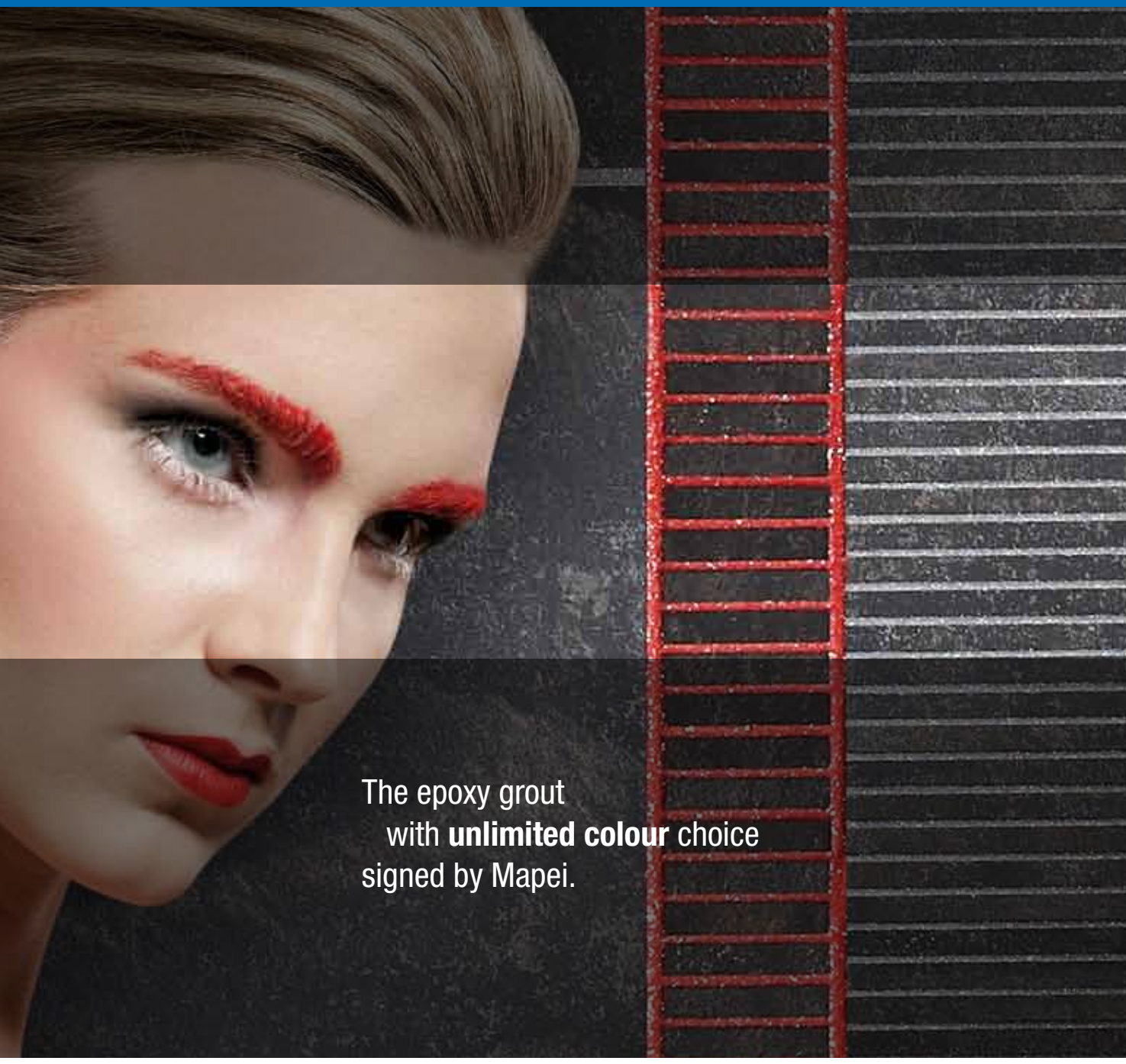
costs. Around 24 hours after smoothing the surface, the solid oak wooden floor was bonded in place with ULTRABOND ECO S948 1K one-component, solvent-free, sililated polymer-based adhesive with very low emission level of volatile organic compounds (VOC).
Part of the wooden floors (around 500 m^2) was bonded to a special retractable modular system made up of wooden panels mounted to a metal frame.
The ceramic tiles in the bathrooms were also installed with Mapei products. The 30x60 cm tiles were bonded to the floors and walls with KERAFLEX high-performance cementitious adhesive with no vertical slip and extended open time for ceramic and stone. To grout the tile joints, Mapei Technical Services recommended using KERAPOXY DESIGN two-component, decorative, translucent epoxy mortar, which is resistant to acids and is easy to clean.

This article was taken from issue no. 42 of *Mapei et Vous*, the magazine published by Mapei France, the French subsidiary of the Group, whom we kindly thank. We would also like to thank the Louis Vuitton Foundation and the companies Parqueterie de la Lys, ILDEI and Triomat for their kind help in writing this article.

TECHNICAL DATA
Louis Vuitton Foundation, Paris (France)
Period of Construction: 2008-2014
Period of the Mapei Intervention: 2013-2014
Intervention by Mapei: supplying products to prepare the substrates and to install wooden floors and ceramic tiles
Designer: Frank O. Gehry
Client: Fondation d'Enterprise Louis Vuitton pour la Création
Works Supervision: Frank O. Gehry, Gehry Partner and Gehry Technologies
Main Contractor: Vinci Construction
Flooring Contractors: parquet flooring by Parqueterie de la Lys; ceramic flooring by ILDEI
Works Director: SETEC Bâtiment, Veritas
Mapei Distributor: Triomat (for the ceramic line products)
Mapei Co-ordinators: Laurence Prial and Jean-Rémi Pimenta, Mapei France
Photos: Louis Vuitton Foundation – Iwan Baan, Louis-Marie Dauzat, Stephan Gladieu, Félix Cornu and Mohamed Khalfi

MAPEI PRODUCTS
Building an anti-damp barrier: Primer MF, Quartz 1.2
Treating the substrates: Plano 3
Bonding wooden floorings: Ultrabond Eco S948 1K
Bonding and grouting ceramic tiles: Keraflex, Kerapoxy Design

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



Kerapoxy Design®

Kerapoxy Design® is a highly decorative grout which enhances the most precious ceramic tiles and mosaics. With a translucent effect, it is bright, durable and easy to apply. It is available in an unlimited range of colours that can be mixed to each other and also to **MapeGlitter** metallic coloured glitter to create special aesthetic effects. **Kerapoxy Design®**: no explanation required, the name speaks for itself.

Product info

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ADHESIVES · SEALANTS · CHEMICAL PRODUCTS FOR BUILDING

AVIAPARK SHOPPING CENTRE IN MOSCOW

ITALIAN AGGLOMERATE STONE FLOORINGS FOR THE LARGEST SHOPPING AND ENTERTAINMENT CENTRE IN EUROPE

ABOVE. Agglomerate stone floorings were installed throughout the center with GRANIRAPID or KERALASTIC T.
LEFT. The big aquarium in the middle of the shopping centre. Floor substrates were treated with PRIMER G before bonding stone slabs and grouting joints with ULTRACOLOR PLUS.

Aviapark, the largest shopping and entertainment centre in Europe, is located in Moscow on the premises of the M.V. Frunze Central aerodrome (the chief aerodrome for the Soviet Army's air force) and first Moscow airport (Sheremetyevo). The first stone of this mall was laid in November 2012 and two years later the Aviapark centre was already brought into operation.
The total surface of the Aviapark complex is 390,000 m^2, equaling the size of 36 football pitches. The 4-storey shopping center has the shape of a smooth arc. The shopping space of the mall is 230 000 m^2 and hosts over 500 shops, which can be visited by 150,000 people. There are a multiplex cinema including 17 auditoriums, a garden area and about 80 restaurants. It also hosts a Tu-154 plane (a workhorse of Soviet and, subsequently, Russian airlines for several decades) while two museums are located nearby. In the middle of the mall there is the world's tallest aquarium: 23 m high and 6 m in diameter.
It is expected that Aviapark will become part of the project for the development of the Khodynka field cultural cluster. In 2016, just in front of the shopping center, there will be a city park designed by the Italian architectural office Land based in Milan. The underground railway station "Khodynka field" will also be built there, as well as the new complex hosting the Russian National Centre for Contemporary Arts.

RAPID AND RESISTANT INSTALLATION

Italian agglomerate quartz stone slabs were chosen for the mall floorings. They were laid with GRANIRAPID two-component, high-performance, deformable, quick-setting and drying cementitious adhesive.
The substrates had been previously treated with PRIMER G synthetic resin primer in water dispersion with a very low content of volatile organic compounds (VOC).
This product was used to reinforce the substrate, provide protection against moisture and improve adhesion of the covering material.
For the most problematic areas (entrances, areas next to the panoramic windows), Mapei Technical Services suggested to lay the floor slabs with KERALASTIC T two-component, high-performance polyurethane adhesive with no vertical slip.
ULTRACOLOR PLUS high-performance, anti-efflorescence, quick-setting and drying polymer-modified mortar was recommended to grout the joints. This product features water-repellent DropEffect® and mould-resistant BioBlock® technology and is ideal for grouting joints from 2 to 20 mm wide.
MAPEFLEX PU50 SL castable polyurethane sealant was used to seal expansion joints. It features a low modulus of elasticity for movements up to 25%.

IN THE SPOTLIGHT

GRANIRAPID
It is a high performance, deformable, fast setting and hydration, two-component cementitious adhesive for ceramic tiles and stone material. It is particularly suitable for the installation of stone material that is moderately unstable to moisture and requires a rapid drying of the adhesive. It is ideal for bonding floors subject to heavy traffic. Because of its extraordinary bonding and fast-setting characteristics, GRANIRAPID is particularly suitable for rapid re-tiling jobs and flooring that has to be in service within very short time (supermarkets, industries, hospitals, airports, swimming pools, etc.).
It can contribute up to **5 points** to obtain **LEED** (Leadership in Energy and Environmental Design) certification.

TECHNICAL DATA
Aviapark Shopping and Entertainment Centre, Moscow (Russia)
Period of Construction: 2012-2014
Year of the Mapei Intervention: 2014
Intervention by Mapei: supplying materials for laying agglomerate quartz stone on floors, grouting joints, and sealing expansion joints.
Main Contractor: Renaissance Construction
Project Developer: AMMA Development
Mapei Distributor: OOO "Kamlit"
Installation Company: Renaissance Construction
Installed Materials: aggregate quartz stone slabs by Stone Italiana, supplied by ARTISHOK
Mapei Co-ordinators: Dmitry Smirnov, and Vladimir Kovalenko, ZAO Mapei (Russia)

MAPEI PRODUCTS
Laying stone floorings: Keralastic T, Granirapid
Preparing the substrates: Primer G
Grouting joints: Ultracolor Plus
Sealing expansion joints: Mapeflex PU 50SL

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

Novoplan Maxi

More **fluid**, more **rapid**.

Novoplan Maxi

Self-levelling mortar for **embedding compact**, under-floor heating/cooling systems and for **levelling off all types of existing heated floors**.

Product info

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ADHESIVES · SEALANTS · CHEMICAL PRODUCTS FOR BUILDING

A compact underfloor heating system.

LEVELLING SYSTEMS

FOR INSTALLING COMPACT UNDERFLOOR HEATING SYSTEMS

MAPEI SOLUTIONS FOR INSTALLATION ON EXISTING FLOORS AND SCREEDS

Compact underfloor heating and cooling systems are becoming increasingly commonplace in renovation work on residential buildings, where they seem to have found their natural habitat. They are also becoming the preferred solution in an increasing number of new builds.

In renovation work, where the space available to install new flooring is often limited and very difficult to modify, it is not possible to use conventional underfloor heating systems because they normally require a depth of at least 7 cm.

Therefore, in order install underfloor heating where the thickness would normally be insufficient, systems with different construction techniques have been developed, and even though these systems are more compact, they are characterised by their high thermal efficiency and low inertia. As with conventional systems, they are suitable for overlaying with ceramic or natural stone floorings, or even floating or prefinished wooden floors.

This type of system is becoming more widely used in new builds. In fact, thanks to the reduced thickness of the levelling layer in which the system is embedded, these systems have low thermal inertia which helps when regulating the temperature and programming when it should be switched on and off. Also, since the temperature of the water in the system is slightly lower than in conventional systems, there is an appreciable saving in energy consumption.

The most commonly used compact heating systems are made from preformed plastic panels that are used to lay the pipework. They range from 12 to 20 mm thick, depending on the design and layout chosen by the manufacturer of the system.

The panels are self-adhesive and may be bonded directly to any type of existing flooring or screed (apart from resilient and textile floorings), as long as they are well bonded to the substrate, dry, sufficiently clean and strong.

Another type of compact system commonly used is made from fibre cement panels or gypsum fibreboard panels with slots machined in them for positioning the pipework.

For this type of system the panels are generally between 20 and 25 mm thick. Similarly with this type of solution, checking the condition of the substrate and preparation work before installing the system is very important.

THE SUBSTRATE

To get the best result of the heating flooring system and guarantee that the heating/cooling system itself performs as required while allowing the flooring to be as durable as possible, the cementitious screeds needs to be as follows:

- flat: to allow the panels to be bonded

soundly in place and the pipework to be installed correctly;
- clean: substrates must have no loose or detached parts and no traces of dust, cement laitance, and any other material or substance that could affect adhesion;
- crack-free: any cracks or fissures in the substrate must be sealed by filling them with EPORIP or EPOJET epoxy resins and then broadcast with dry sand while still wet to help promote adhesion during the next phase;
- fully cured and dimensionally stable: the curing time is one of the most important requirements for a newly built cementitious screed. The curing time for a "traditional" sand-cement screed is around 28 days;
- dry: to prevent condensation forming and damaging gypsum panels, there must be no rising damp in the substrate and the residual humidity content must be a maximum of 2.5%;
- mechanically resistant: as a general rule the mechanical strength of the screed must be at least 20 N/mm^2.

If the substrate is an existing ceramic or stone floor, the tiles or slabs must be perfectly bonded to the substrate and any substance that could impede adhesion, such as wax or grease, must be removed from the surface.
Uneven areas and gaps in the flooring must be filled with skimming mortar, preferably a rapid-drying and hardening type such as NIVORAPID thixotropic, cementitious smoothing compound, ideal for thicknesses from 1 to 20 mm, including on vertical surfaces.

PHOTO 1. A compact heating system with 18 mm thick self-adhesive, preformed plastic panels.
PHOTOS 2 and 3. Embedding and levelling off a compact heating system with NOVOPLAN MAXI.

THE BESPOKE LEVELLING PRODUCT

Mapei has developed a special self-levelling product for embedding and levelling off compact heating/cooling systems: NOVOPLAN MAXI highly fluid cementitious levelling compound.
The special formula developed in the Mapei R&D laboratories gives NOVOPLAN MAXI the following characteristics:
• high thermal efficiency (λ=1.727 W/mK) which improves the thermal yield of the system;
• compressive strength 22 N/mm^2 and flexural strength 4.4 N/mm^2. Thanks to these values ceramic, stone and prefinished wooden floor can all be installed on the NOVOPLAN MAXI surface;
• contains added polymer fibres to improve dimensional stability of the levelled layer during thermal/hygrometric transitions and reduce the formation of hygrometric shrinkage cracks;
• rapid-hardening (Fast Track technology): it sets to foot traffic after just 4-6 hours and reduces the waiting time before the start-up of the system to just 4 days;
• may be applied in layers from 3 to 40 mm thick: this range makes it a practical solution for use in areas where different thicknesses are required;
• easy to apply: the fluidity of the mix and being able to mix the compound both manually and with a continuous mix pump makes it a practical solution for both small and large surface areas.

INSTALLING THE SYSTEM

Once the substrate has been prepared the system itself is now ready to be installed.
Preformed plastic panel system
• Apply a coat of ECO PRIM T solvent-free acrylic primer with a very low emission level of volatile organic compounds (VOC) for absorbent and non-absorbent substrates. It can be used as it is or diluted 1:1 with water, depending on the absorbency of the substrate. Once the primer is completely dry, the panels may be installed according to the specified layout.
• Install the system and apply NOVOPLAN MAXI to form a levelling layer at least 3 mm thick (maximum thickness: 15 mm) above the pipework. The compound may be applied manually, that is, by mixing NOVOPLAN MAXI in a clean container using an electric mixer at low-speed, or pumped with

PHOTO 4. Bonding gypsum panels in place with ULTRABOND MS RAPID.
PHOTO 5. Levelling off gypsum panels with NOVOPLAN MAXI.
PHOTO 6. After levelling off the surface, the floor is now ready for installing the floor covering.

special equipment for free-flowing mortar or with continuous-mix equipment. A mortar pump is certainly the more reliable of the two methods as the amount of mixing water may be dosed more accurately. The mixing time may be extended by at least one minute.

• The system may be started up for the first time after waiting at least four days (in compliance with UNI 1264-4 standard). It is very important to start up the system before installing the flooring so that it can be checked, to make sure it is operating correctly, and to stabilise the levelling layer used to embed the system.

• Once the system has been started up, any cracks or fissures must be sealed with EPOJET or EPOJET LV. The chosen flooring may now be installed.

Gypsum and fibre-cement panel system

After checking that there is no gypsum or cement dust from the milling operations on the panels, installation is carried out as follows:

• The existing substrate must be clean, stable, flat, dry and mechanically resistant and there must be no rising damp.

• Install the panels in place on the cementitious substrate by bonding them with ULTRABOND MS RAPID applied in beads around 20-30 cm apart on the back of the panels and using mechanical fasteners. For existing ceramic, porcelain tile and marble floors, treat the surface with PRIMER M before bonding the panels with ULTRABOND MS RAPID. Wait at least 24-48 hours and position the 12 mm diameter PEX pipework.

• After positioning the pipework, prime the surface of all the panels with ECO PRIM T primer using a large brush or airless spray. ECO PRIM T will not harm or damage the PEX pipework.

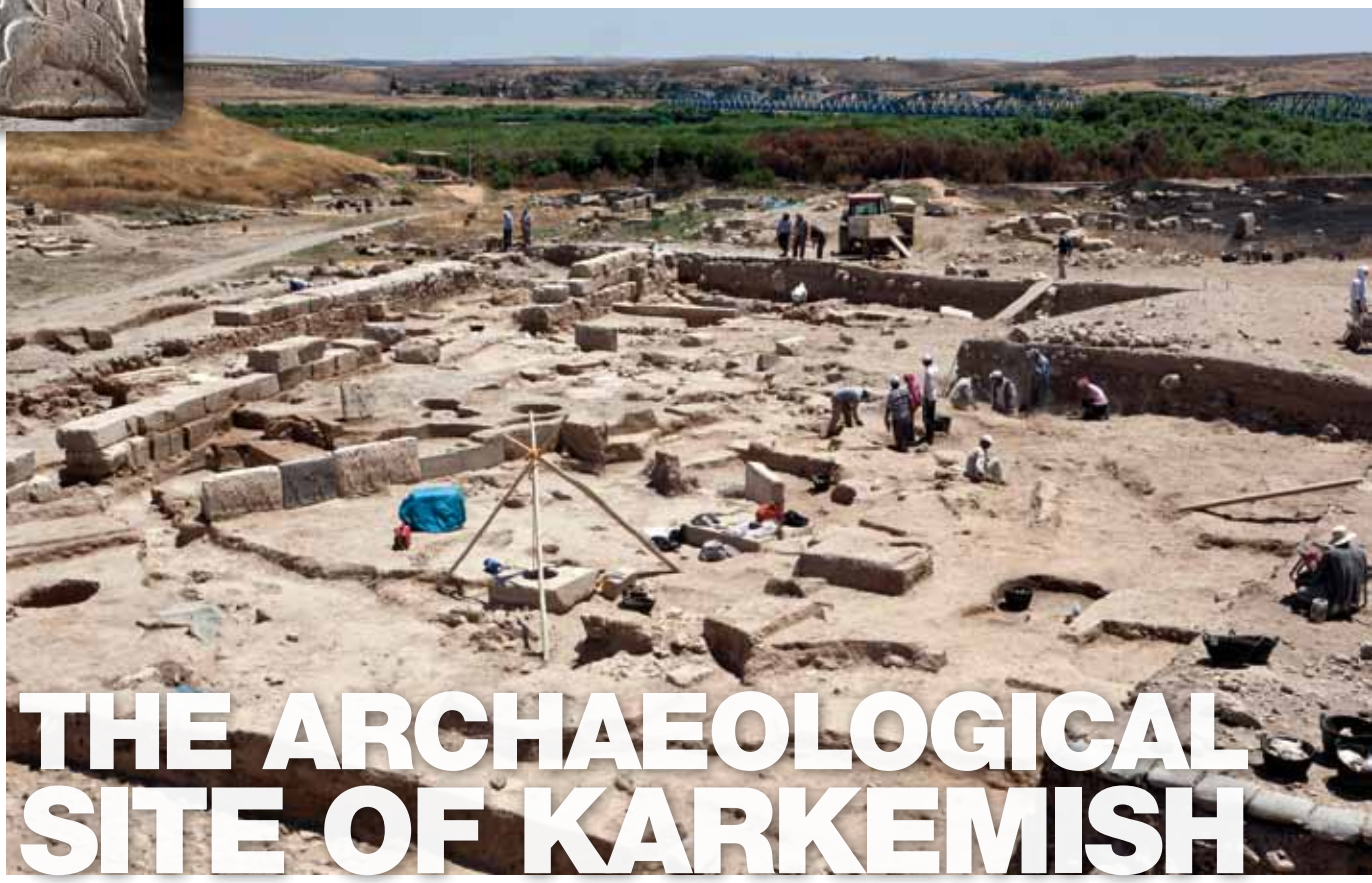
• Within 48 hours of applying ECO PRIM T, embed and level off the panels with NOVOPLAN MAXI to form a layer at least 3 mm thick over the pipework. The maximum thickness of the layer of levelling compound in this case is 20 mm.

Similarly with this type of system, the system may be started up after waiting at least four days.

If, for design purposes, impact noise from the floor needs to be reduced, MAPESONIC CR soundproofing mat may be applied over the NOVOPLAN MAXI layer to reduce noise levels by up to 10 decibels. MAPESONIC CR is bonded in place with ULTRABOND V4 SP if ceramic or stone flooring is to be installed over it, or with ULTRABOND S955 1K adhesive for engineered parquet.

Because of the low thermal resistance of MAPESONIC CR (R = 0.024 m^2 K/W), it has no effect on the efficiency of the heating/cooling system.

Roberto Orlando. Mapei SpA Technical Services



THE ARCHAEOLOGICAL SITE OF KARKEMISH

CONSOLIDATING ANCIENT STRUCTURES ON AN ARCHAEOLOGICAL SITE DATING BACK THOUSANDS OF YEARS

The archaeological site of Karkemish, located in south-eastern Turkey on the border with Syria, has been inaccessible for a very long time; first, it had been turned into a military base and then it was mined. It has now been again the subject of archaeological research following a decision by the Cultural Authorities of the Turkish Republic in 2011.

Prof. Nicolò Marchetti from the University of Bologna, an archaeologist and an old friend of *Realtà Mapei*, first directed excavations at the archaeological sites of Tilmen Höyük and Taşli Gecit (see respectively, *Realtà Mapei* nos. 92 and 119, and *Realtà Mapei International* no. 28) and now those at Karkemish.

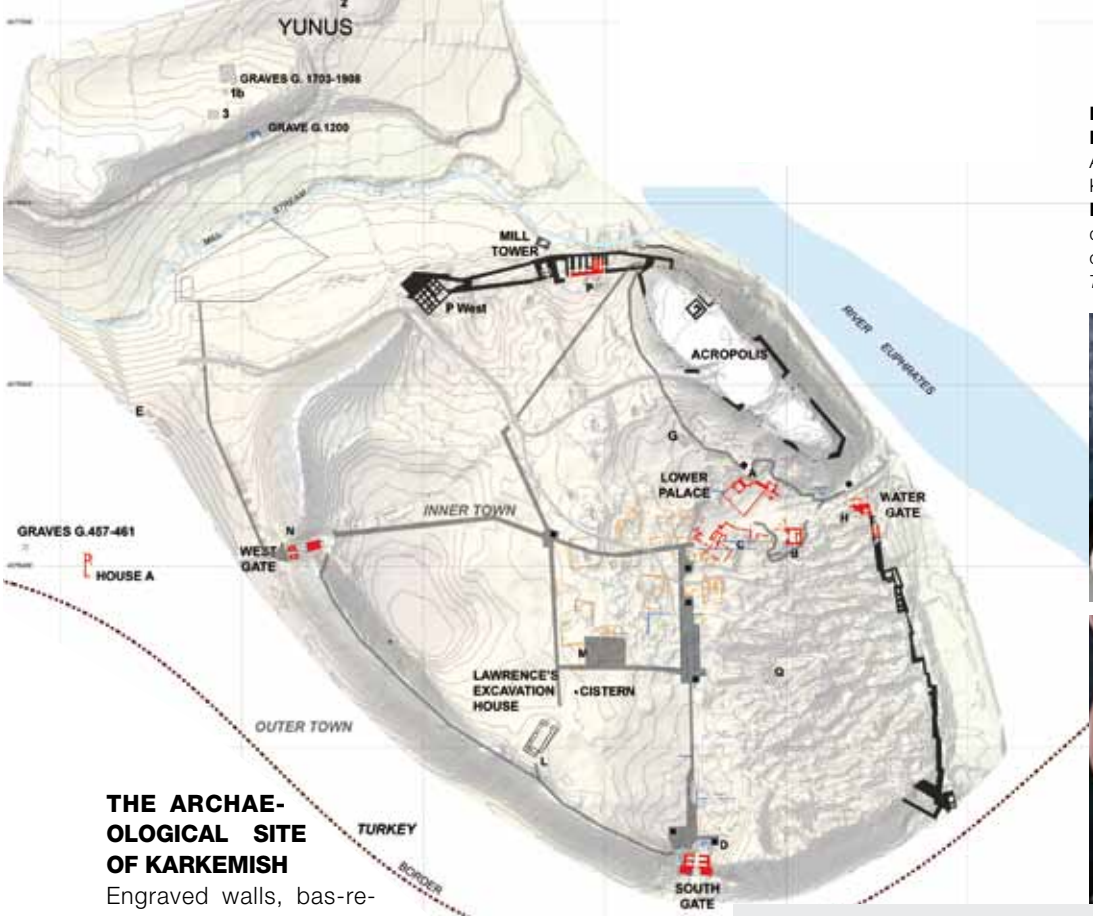
A STORY DATING BACK FIVE THOUSANDS YEARS

Karkemish, an ancient city on the western bank of the Euphrates, has been inhabited since the Neolithic period. It was mentioned in the Bible in the story recounting the victorious battle fought in 605 BC by the Babylonians, led by Nebuchadnezzar II, against the armies of Assyria and Egypt.

The name Karkemish is a reference to Kamis, a god from northern Syria. Testimony of the wealth of the city can be seen in its stone monuments decorated with sculptures and inscriptions. The fortified bastions, the thriving trade on the Euphrates and the importance of the city as a stop-over point for trade caravans are first mentioned on cuneiform tablets discovered in Ebla dating back to three millennia before the birth of Christ.

An important trading centre for wood, Karkemish was conquered by the Emperor of the Hittites, Suppiluliuma I, who placed his son Piyassili in charge. The period of great splendour enjoyed by the city during the last two centuries of the Hittite Empire (the Late Bronze Age II) is not yet known. The spectacular finds that came to light over the last few years date back mainly to the Iron Age, when Karkemish became an important neo-Hittite state. During the early first millennium B.C. the city prospered. Testimony of this period can be found in various hieroglyphic steles and orthostats (decorated or engraved stone support slabs), as well as a surprising series of reliefs mainly dating back to the Suhis dynasty (10th century BC) and the Astiru dynasty (end of 9th-8th century BC).

After being conquered by King Sargon II in 717 BC, Karkemish became an Assyrian province. It then became part of the Neo-Babylonian Empire and then of the Persian Empire, before being renamed Europos during the Hellenic era, remaining inhabited until the first Islamic period.



LEFT. Plan of the digs at Karkemish.
IN THE PREVIOUS PAGE. A view of a section of the ruler Katuwa's palace.
BELOW. The patient work to decipher an Assyrian cuneiform cylinder and a scarab dating from the 7th century B.C. found in the palace.

THE ARCHAEOLOGICAL SITE OF KARKEMISH

Engraved walls, bas-reliefs, sculptures and decorations: the treasure trove, or at least a part of it, that was discovered in Karkemish during the digs carried out since 2011 until today, is of the greatest significance.

Extending over an area of 90 hectares straddling the Turkish-Syrian border, Karkemish is so much more than a simple archaeological site: it is the city that has always had a place in the imagination of all those archaeologists that have worked, and are still working, in the Middle East. Identified by the English expert on Assyria G. Smith in 1876, the area was the subject of digs between 1911 and 1914 during an archaeological mission sent by the British Museum and led by Sir Leonard Woolley and Thomas E. Lawrence, better known as Lawrence of Arabia, the leading figure behind the Arab revolt against the Ottomans.

In the British Museum archives one finds detailed documents on the mission including reports and photographs taken by Lawrence during the mission. The latest digs allowed archaeologists to discover a beautiful mosaic of Roman times that decorated the floor of the dig house used by Lawrence during his stay at the site.

The finds from those digs are now kept in various museums around the world: from the British Museum (London, UK) to the Louvre (Paris, France), from the Ashmolean (Oxford, UK) to the Vatican Museums, right up to the museums of Gaziantep, Ankara and Istanbul in Turkey.

THE ANALYSIS OF THE SITE

In 2011, after almost a century, digs were carried out again at Karkemish with a joint Turco-Italian expedition from the Universities of Bologna, Gaziantep and Istanbul, directed by Prof. Marchetti, a student of Paolo Matthiae, the dean of research work in Syria.

Amongst the numerous finds at Karkemish, we only men-

THE NEW TURCO-ITALIAN PROJECT

The Turco-Italian expedition in the Gaziantep region started in 2003 and is led by Nicolò Marchetti. Since then, two archaeological parks have been completed and opened in the province of Islahiye, one at Tilmen Höyük in 2007 and the other at Taşli Geçit Höyük (see respectively, *Realtà Mapei* nos. 92 and 119, and *Realtà Mapei International* no. 28).

In 2011, a new project at the ancient city of Karkemish was approved by the Turkish Council of Ministers, led again by the Universities of Bologna, Gaziantep and Istanbul with the support of new partners. Five campaigns that have been carried out each year from 2011 to 2015, led by Prof. Marchetti, assisted by Prof. Hasan Peker from the University of Istanbul as Deputy-Director and a scientific committee comprising professors Mustafa Özakça, Refik Duru and Belkis Dinçol. The start of new digs at Karkemish was an event that the entire archaeological community and public interested in such activities had been awaiting for almost a century. In fact, following the construction of a Turkish military outpost in 1920, it had no longer been possible to visit or explore the site.

The aim of the Turco-Italian project is to have an integrated approach involving research work, conservation and presentation of the finds to the general public, and involved an in-depth investigation of the town planning from the Bronze Age, the Iron Age and of the city during the Roman period, while at the same time carrying out conservation work on the ruins in view of the expected high number of visitors starting in 2016.

The project is financed by the Italian Ministry for Foreign Affairs and International Cooperation, the Municipality of Gaziantep, the Şahinbey Municipality and Sanko Holding.

As far as technical sponsorship is concerned, apart from Mapei who supplied products to strengthen the structures, Ceia supplied metal detectors and Abet Laminati supplied information panels for tourists.

ABOVE. An orthostat found in the palace of the ruler Katuwa.
LEFT. The digs unearthed the original surface of one of the roads next to the palace of Katuwa.

LEFT. ADESILEX PG2 adhesive was used to anchor and grout sections of the large ceramic vats dating from 700 B.C.

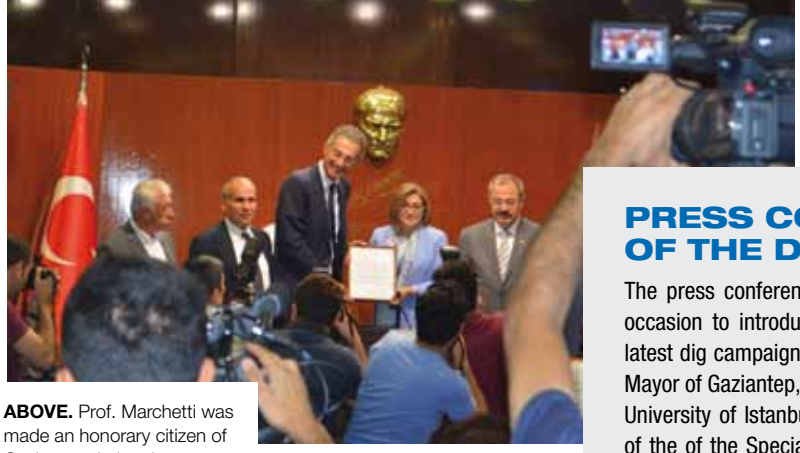
RIGHT. The consolidation of the Roman mosaic in Lawrence's dig house was carried out using PRIMER 3296.

tion those from 2014. In the palace of the ruler Katuwa, who lived around 900 BC, some very rare carvings were found: five large limestone and basalt orthostats depicting a row of people carrying gazelles on their shoulders. Also, inside the palace once inhabited by Sargon II, who reigned over Assyria from 721 and 705 BC, a precious mosaic floor has been found.

The site of Karkemish, which extends over an area of around 90 hectares, 55 in Turkey and 35 in Syria, is not very far from the Syrian city of Jerablus. Because of its geographical position, this city has been an important strategic location since ancient times, and it was due to its position that the Turkish army created a military base here in 1920, which is still operational today. Their presence is certainly not unwelcome now that on the other side of the border there are the Jihadist armies of the so-called Islamic State, Isis.

The archaeological research project at Karkemish has revealed some important monuments of the Neo-Hittite city from the beginning of the first millennium B.C. and laid the foundations for further studies of remains dating back to the previous millennium. In fact, the aim of the new archaeological investigations is to dig even deeper, to pass through the Roman and Assyrian remains and go back to the earlier phases still.

The final project – which is very dear to Prof. Marchetti – includes the creation of an archaeological park which will be integrated with the environmental park on the Euphrates, so that the region where the site is located can profit economically from tourism. After removal of all the land mines was completed in 2011 and the creation of footpaths and equipment for future tourists visiting the area, to complete work prior to its inauguration in 2016,



ABOVE. Prof. Marchetti was made an honorary citizen of Gaziantep during the press conference in 2015.

there is just a wall three metres high and two kilometres long to be built along the Turkish-Syrian border.

PROBLEMS AND SOLUTIONS ON SITE

The digs and research work carried out at Karkemish have led to the application of some techniques to prevent erosion, thanks also to support from Mapei, which has collaborated on the field with Prof. Marchetti for a number of years.

Mapei Technical Services recommended products and systems that would help overcome the problems encountered on site, while at the same time be compatible with ancient remains. "Minimal" interventions have always been applied in the area where the digs have taken place in Karkemish so that they do not have too much of an impact on the finds, while at the same time guarantee they are well preserved over the years.

Following the digs and the operations to date the site, the most suitable types of intervention and products were defined. After removing the micro-vegetation covering the areas of interest, the surfaces were cleaned manually using brushes and sponges and then consolidated with ethyl silicate, recommended for all types of absorbent siliceous materials (such as in this case).

The next step was to consolidate the road surfaces of Hittite origin and some of the orthostats. In this specific case, Mapei recommended PRIMER 3296 consolidating primer diluted 1:2 with water. This acrylic polymer-based primer guarantees high penetration into materials where it is applied and is recommended for consolidating weak or crumbly substrates, such as old renders, or brick and soft limestone masonry.

MAPE-ANTIQUE LC lime and Eco-Pozzolan based hydraulic binder was then applied. It was mixed with local aggregates to get a mortar featuring the colors and textures of local mortars.

To consolidate the walls dating back to the Roman period, after applying PRIMER 3296, a layer of MAPE-ANTIQUE RINZAFFO salt-resistant mortar was applied, specifically developed for renovation work on old stone, tuff and brick structures.

To consolidate the crumbling walls of the old dig house belonging to Lawrence, a mixture made from PRIMER 3296 and soil was used. To anchor and grout the sections that had become detached, ADESILEX PG2 two-component thixotropic epoxy adhesive was used, particularly recommended for areas with temperatures well above 20° C for most of the year.

PRESS CONFERENCE OF THE DIG CAMPAIGN

The press conference, held in Gaziantep last June, was the perfect occasion to introduce to the public the extraordinary results of the latest dig campaign at the Karkemish site. Alongside the Metropolitan Mayor of Gaziantep, Fatma Şahin, and Hasan Peker, professor from the University of Istanbul, there was also Prof. Nicolò Marchetti, Director of the of the Specialization School for Archaeological Heritage of the University of Bologna and director of the expedition, who declared that "Discoveries of this magnitude have not been made for 50 years", and emotionally retold the story of the first time he set foot on the Karkemish site and accidentally nearly stumbled on a basalt stele more than two metres high, on which was engraved the name of Suhi I, the city's ruler around 975 B.C.

After working for five years digging at this archaeological site on the Turkish-Syrian border, with the railway cutting the remains of the ancient city in two, Marchetti pointed out that it was here that Lawrence of Arabia started his dig. The Karkemish Archaeopark, which will soon be inaugurated, was also explained at the press conference, as well as tourist routes, the areas of the dig open to visitors and the security wall along the border between Syria and Turkey to protect the site and its visitors. The archaeological park was designed by the architects Ferrando e Giacardi and its aim is to give visitors an idea of traditional building techniques, offering an unprecedented experience for those who visit this ancient city considered to be one of the most important in the Middle East.

This article was written using information collected by Gamze Dogan Zehra, Mapei Yapı Kimyasallari A.S. , whom we would like to thank.

TECHNICAL DATA

Archaeological Site of Karkemish, Province of Gaziantep (Turkey)
5th Dig Campaign: April-June 2015
Period of the Intervention: 2011-2015
Intervention by Mapei: supplying products to renovate and strengthen ancient structures discovered at the site
Expedition Director: Prof. Nicolò Marchetti (Alma Mater Studiorum - University of Bologna- Department of History and Cultures)
Design of Restoration Interventions: Laura Benucci and Giada Bertocci
Archaeological Park Design: Archt. Alessandra Giacardi and Massimo Ferrando (2APstudio)
Mapei Co-ordinators: Davide Bandera and Pasquale Zaffaroni, Mapei SpA (Italy)

MAPEI PRODUCTS

Consolidating the structures:
Adesilex PG2, Mape-Antique LC, Mape-Antique Rinzaffo and Primer 3296

For further information on these products visit www.mapei.com

NICOLÒ MARCHETTI, PROFESSOR OF ARCHAEOLOGY AND ART HISTORY OF THE ANCIENT NEAR EAST AT THE UNIVERSITY OF BOLOGNA (ITALY), SHARES WITH US THE NEWS ABOUT HIS LATEST EXCAVATIONS IN TURKEY

NICOLÒ MARCHETTI

Located on the East bank of the Euphrates River, first excavated from 1911 to 1914 by Thomas E. Lawrence, i.e. Lawrence of Arabia, but inaccessible after becoming a military installation in 1920, mined in 1956 and then opened to research since 2011. What have the last five years been like working in a place like Karkemish, one of the mythical archaeological sites of the Orient?
Apart from the obvious sense of responsibility and excitement, there is another important aspect. When you dig a site that has already been surveyed, working inside or alongside monuments that have already been uncovered in the past, you confront yourself constantly with the strategies and problems encountered by the archaeologists before you. You certainly end up interacting in some ideal way with them, admiring their intuitions and seeing how far they got: this was what happened to us in the case of two such giants as Lawrence and Woolley. Reading the wonderful letters written by Lawrence from their dig house within the site, you can actually reconstruct their world of human and intellectual relations with the local people - at a level of detail that is even more striking due to the fact that everything is still very similar to our own experience.

Referring to this site one year ago, you claimed that "discoveries like this have not been made for 50 years". When will the Karkemish Archaeological Park officially open? And where did you get the financial backing for such lengthy and expensive excavations?
The park is actually ready now and we are just waiting for building work to be completed on a security wall along the border that crosses the site leaving a third of it in Syria. We should officially open it in 2016: despite what the papers say, it is quite safe to come and visit the site even now. Our budget – that comes from contributions made by the University of Bologna, the Italian Ministry for Foreign Affairs, European projects and a couple of American foundations over the last few years - is hardly enough to just carry out the excavation and restoration work. To finish the park we had to rely on crucial local support from the Metropolitan Council of Gaziantep and the Sanko Group.

Italian archaeologists are the most numerous in Turkey, despite the fact that the geographical location is a complex one, partly due to a resurgence in nationalism in the country. Has this slowed down your work?
Turkey is a country that is changing at lightning speed of light. It is developing at a breakneck pace, often not in a carefully planned way, and this obviously has negative consequences in the field of cultural heritage. There are lots of new universities and almost every single one of them wants to undertake their own important project, which inevitably means complex discussions and debates with the Turkish Ministry of Culture and Tourism, an institution with which, incidentally, we have always enjoyed excellent relations. Our situation is different since ours has always been a Turco-Italian joint-venture between the Universities of Bologna, Istanbul and Gaziantep. A spirit of cooperation and inclusion is one of the distinctive traits of our presence in Turkey.

Karkemish is on the border between Turkey and Syria, just north of the Syrian city of Jerablus, where a detachment of Islamic extremists is currently located. Have you encountered any difficulties or has work had to be interrupted?
The Near East is an intricate web of relations, often not immediately evident to the Western media. When a border is represented, as in our case, by a railway line across a plain, it is unthinkable for both sides not to still be in very close relations, regardless of government politics. The local Turkish

community has great faith in our project for an archaeological park and has provided its full backing and, in some sense, this is mirrored on the other side of the border. Of course in the past there have been clashes between Kurdish guerrillas on the east bank of the Euphrates and ISIS in Jerablus, but even then we carried on working without any particular problem. It is also worth pointing out that the site is an extremely well defended Turkish military base.

Another very cutting-edge issue is that of safeguarding the archaeological heritage in countries involved in wars or which are located close to "hot" borders. How do you work in situations like this and what kind of problems have you had to deal with on a daily basis?
It is always the weak who suffers most during wars and this also applies to cultural heritage. Alongside the devastation brought about for ideological reasons, there is also (and it is actually much more serious) the damage caused by illegal digs supplying the international market for ancient artefacts. In this case, we ought to be more effective in stopping and isolating, even socially, the most brazen museums and so-called collectors. As far as we are concerned, the local population always informs us about any illegal activity in the field of archaeology and we are often able to take action with the help of the authorities in quite an effective way, particularly by mediating on a social level, which is certainly costly in terms of time, but we can cope with that.

Commissioned thefts from archaeological sites are a serious problem that scholars have had to deal with for years. Have you also had to protect yourself against thieves pillaging ancient artefacts in Karkemish?
The site itself is one of the most carefully guarded in the East, because it is a military base, so we have had no problems. In the 35 hectares of the site that are still in Syria I know that there have not been any particular issues, except for those resulting from the construction of new buildings along the northern suburbs of Jerablus, but this problem is, fortunately, over, at present. Besides, the Syrian side has been mined over the last few months, which means there is virtually no chance of there being any thefts in the near future.

You act as a go-between between the University of Bologna and the archaeological digs in the Near East. Apart from the interest shown first by Rector Dionigi and now by Rector Ubertini, why did the University of Bologna decide to get involved in this project? Is it important for the universities, which have been centres of culture for centuries, to undertake projects on overseas sites destined to become part of the world heritage?
The University of Bologna, which is also significantly called Alma Mater Studiorum, has an enduring natural international vocation and, alongside the prestige resulting from being the holders of an excavation permit at such a famous site, there is also the will to carry out research at the highest level and, at the same time, to build a bridge of peace, development and cooperation between nations: from this perspective the key purpose is to make new science (on a multidisciplinary level, working closely with lots of colleagues from different fields) and educate the younger generations. Turkey will soon be asking for Karkemish to be listed as a UNESCO World Heritage site and for us it is an even greater honour to help enhance a site that is so important, already on a symbolical level. I am very grateful to our University for always firmly believing in this approach.

For years you have been working closely with the Mapei Technical Services team, often crucial in choosing operating solutions. Have Mapei products once again managed to meet your requirements for working on ancient buildings with the respect this requires?
Our philosophy is always and only to work with due respect for monuments, without adding anything new or, worse still, carrying out reconstructions. We are, of course, delighted with the MAPE-ANTIQUE line for mortars (both the MAPE-ANTIQUE NHL render and MAPE-ANTIQUE F21 binder), while, for strengthening operations, we use PRIMER 3296 and CONSOLIDANTE 8020 consolidator, which is extremely effective on sun-dried bricks. We use ADESILEX PG2 adhesive for cracked stones in structures.

***Realtà Mapei* has already reported on the work carried out by the Italian archaeological expeditions in Jericho, Tilmen Höyük and Tasli Geçit Höyük, and also Karkemish at the very beginning of the project (see, respectively, *Realtà Mapei* nos. 92 and 119, and *Realtà Mapei International* no. 28). Have any new or not previously encountered problem arisen in the meantime?**
Of course the sheer scale of our digs in Karkemish certainly poses significant problems in terms of conservation and maintenance, that are becoming increasingly difficult year by year, particularly as regards stone constructions often made out of soft limestone and, of course, sun-dried bricks. As well as using Mapei products of the highest quality that guarantee a high level of resistance to degradation, we will also have to construct roofs - carefully designed in an innovative way - for particularly important and delicate sectors of exposed monuments, like for example the Assyrian mosaic courtyard from 710 B.C. or Lawrence's house itself. We are still looking for financial backers for these works.

After the official opening of the Karkemish Archaeological Park, will you keep working at the site or do you already have plans for an expedition to another area of the Near East over the next few years?
For the time being we need to complete our research project in Karkemish and this will take several years. No site should be completely excavated using the same methods, however, and so it is only fair that other teams work here in future with different goals in mind. As far as we are concerned, new historical questions raised by this research project in Karkemish will lead us to undertake new projects elsewhere in the Near East in the search of answers, which, in turn, will pose new questions and so on and so forth. This is the natural cycle of science.

MAPEI IN TURKEY

A SUBSIDIARY THAT IS GROWING ON A PROMISING MARKET

Mapei Yapı Kimyasalları A.S., Mapei's Turkish subsidiary, was established in 2013 through the acquisition of Wallmerk Construction Chemicals. Like many other Italian companies (over 1000 in 2013), the Mapei Group has decided to open up operations in Turkey to take full advantage of the opportunities offered by a rapidly expanding market.

The economic prospects of both Turkey and the local building market are, indeed, encouraging: based on the latest statistics published in April by the International Monetary Fund, the Turkish economy is expected to grow strongly with its GNP predicted to constantly increase (+3.1% in 2015) eventually reaching +3.6% in 2016. The International Monetary Fund estimates there will be a gradual drop in the inflation rate, which should settle at 6.5% next year, while unemployment is expected to remain high at just under 12%.

Turkey is also the world's seventh largest ceramic tiles consumer, actually exceeding the United States in this respect. The Turkish ceramic tiles market is also the biggest in Europe: Confindustria Ceramica (the Association of Italian ceramic tiles and refractory materials manufacturers) estimates that sales increased by 5.4% in 2014 reaching a figure estimated at over 238 million m^2. The positive trend forecast for the economy and housing market ought to support tiles sales that are expected to grow by over 4% both this year and in 2016. Turkey also turns out to be a "Colossus" in terms of both production and exports: 349 million m^2 of ceramic tiles manufactured in 2014, while exports settled at 86 million m^2.

THE TURKISH ECONOMY AND BUILDING INDUSTRY

+3.1%
IS THE IMF'S ESTIMATE FOR THE TURKISH GNP IN 2015

+5.4%
IN TILES SALES IN 2014 COMPARED TO THE PREVIOUS YEAR

86 million m²
TURKISH CERAMIC TILES EXPORTED IN 2014

+4.3%
IS THE ESTIMATED RISE OF TILES SALES IN TURKEY IN 2015

349 million m²
TILES MANUFACTURED IN TURKEY IN 2014

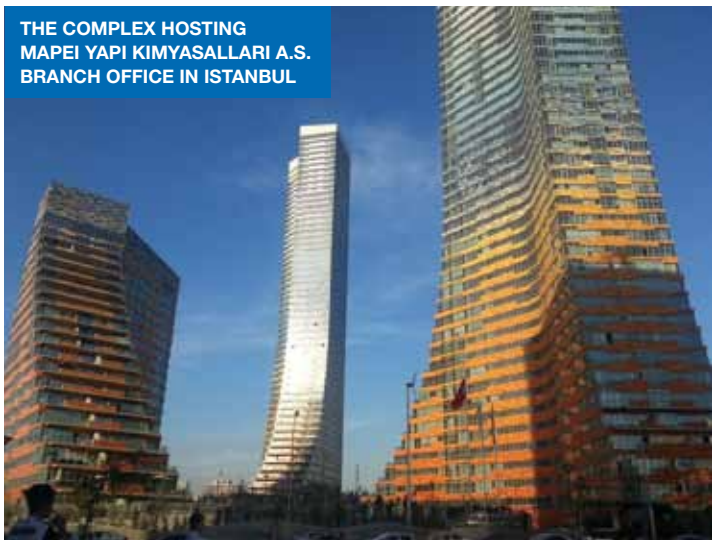
Source: IMF, Confindustria Ceramica

COUNTRY	CERAMIC TILES SALES (2014 MILLION M²)
CHINA	4,920.2
BRAZIL	865.4
INDIA	741.2
INDONESIA	351.3
SAUDI ARABIA	237.5
IRAN	306.1
TURKEY	**238.0**
USA	231.4

Table 1. Ceramic tiles sales in 2014
Source: IMF, Confindustria Ceramica

ETICS AND MUCH MORE

The Turkish acquisition has ensured the Mapei Group has its own manufacturing plant on Polati Industrial Park in the town of Polati, a strategic industrial centre for the entire nation located close to the capital city Ankara. Mapei Yapı Kimyasallari Ins. also has head offices in Ankara and business offices in Istanbul, Turkey's other nerve centre.
Mapei Yapı Kimyasalları A.S.'s manufacturing plant covers an area of 23,000 m², including approximately 5000 m² of covered space. The facility is also equipped with Quality Control Laboratories, which carry out tests on both liquid and solid materials. The plant's manufacturing output is 78,850 tons of powder products and 2200 tons of liquid products and finishes. Lots of Mapei solutions are manufactured here, primarily materials for thermal insulation and finishing products for façades, all marketed under the name Etics (External Thermal Insulation Composite Systems). These products are the company's core business, accounting for over 50% of overall sales, due to the fact that the Turkish market stands out for its high number of redevelopment projects on housing buildings, particularly in big cities. Alongside these materials, there are also products from Mapei's building range (anchoring mortars, special mortars, waterproofing materials), solutions for laying ceramic tiles (adhesives, grouts, etc.) and paints for both indoors and outdoors. Thanks to its wide selection of products, the recently established Turkish subsidiary, whose turnover exceeded 10 million Euros in 2012, hopes to hit sales of 12 million Euros in 2015. It plans on doing this by extending its production range and enhancing its local facilities. At the moment, for example, a new warehouse is under construction, which will allow products and materials to be stored more effectively, extending the plant's covered surface area from 5000 m² to 8000 m².
For two years now Mapei Yapı Kimyasalları A.S. has been doing itself proud on the Turkish market, implementing a very precise growth process with the aim, as pointed out



THE COMPLEX HOSTING MAPEI YAPI KIMYASALLARI A.S. BRANCH OFFICE IN ISTANBUL

MAPEI YAPI KIMYASALLARI A.S. HEAD OFFICES IN ANKARA

MAPEI YAPI WAREHOUSE AT POLATI INDUSTRIAL PARK

IN THESE PHOTOS. A new warehouse providing better storage facilities for materials is currently under construction at the Mapei Yapı Kimyasalları A.S. plant.

MAPEI YAPI MANUFACTURING PLANT IN POLATI

by Veronica Squinzi, the Group's Internationalisation and Global Development Director, of "becoming an important player in the Turkish building industry, thanks to technologically cutting-edge products and constant, committed attention to the environment". The trend in sales is certainly positive for Mapei in Turkey and the number of staff has increased from 56 in 2012 to 85 at the present moment. This is also a sign that the Turkish subsidiary's business is booming and that Mapei has a promising future ahead in the country with the crescent moon on its flag.

TRAINING AND PROMOTIONS

But that is not all. In order to ensure solid enduring growth, Mapei Yapı Kimyasalları A.S. is constantly investing in training, organising regular seminars and workshops in every region of Turkey to provide installers, distributors, contractors and designers with specific information about the correct use of Mapei products, their potential and benefits. As many as 3600 people were involved in training events organised by the Turkish subsidiary in 2015.

To promote its own solutions, Mapei Yapı Kimyasalları A.S. takes full advantage of the opportunities provided by local events in the industry. For example, it recently took part in Turkey Build Istanbul, the main trade fair devoted to the building industry in Turkey. This event, which was held from 21st to 25th April, was attended by 104,284 visitors: architects, engineers, interior designers, distributors, installers and technicians were all able to admire the latest products on display in an area covering 81,000 m^2 inside 12 pavilions. The general public came from various parts of the country and from abroad, particularly from Eastern Europe, North Africa and the Middle East. At its booth covering 144 m^2 at the 2015 edition of the event, the Turkish subsidiary was able to display a strategic selection of systems and solutions devoted to various different segments of the market and various kinds of application, mainly focusing on waterproofing systems.

BELOW. Mapei Yapı Kimyasalları A.S. had its own booth at Turkey Build Istanbul 2015 displaying innovative solutions for various different fields of application.

TRADE FAIRS

TRAINING

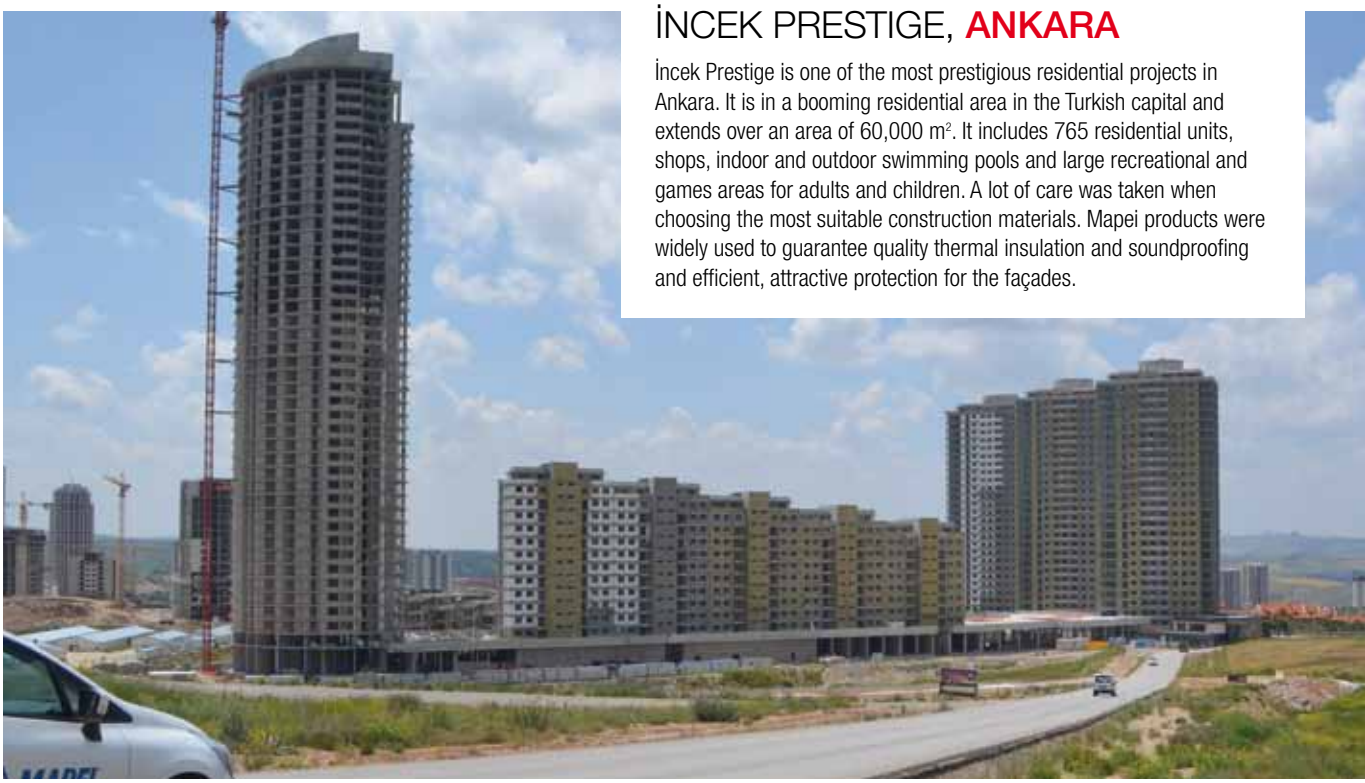
ABOVE. Mapei Yapı Kimyasalları A.S. is constantly implementing intense training operations for installers, distributors, contractors and designers.

MAPEI IN TURKEY:
A SELECTION OF WORKS

THE REAL GAUGE OF MAPEI'S SUCCESS IN TURKEY ARE THE PRESTIGIOUS ARCHITECTURAL PROJECTS THE TURKISH SUBSIDIARY HAS BEEN INVOLVED IN OVER THE LAST TWO YEARS AND WHICH HAVE LED TO THE CONSTRUCTION OF MODERN SHOPPING MALLS, IMPORTANT MANUFACTURING PLANTS AND LARGE RESIDENTIAL COMPLEXES, AS WELL AS REDEVELOPMENTS AND RESTORATION WORK ON HISTORICALLY IMPORTANT OLD PROJECTS. A SELECTION OF THESE BUILDINGS CAN BE SEEN ON HERE

ELYA ROYAL TOWER & RESIDENCE, ANKARA

An enormous skyscraper is under construction in the centre of Ankara and the 20,000 m² of floor space will be divided into a shopping centre and various residential units. Construction work started in 2004 and, once completed, the Elya Royal Tower & Residence will be the tallest building in Ankara. It has taken longer to build than originally scheduled because of the unexpectedly high water table, which meant the client was forced to find a more secure system to waterproof the areas below ground level. In March 2015 work started on this phase which included the use of MAPEPLAN 1LP WS, a special Mapei system that ensures underground structures remain waterproof and solves the problem of water leakages over the course of the building's service life. The system comprises the use of two layers of PVC membranes and post-injection kits to guarantee that everything remains perfectly waterproof.

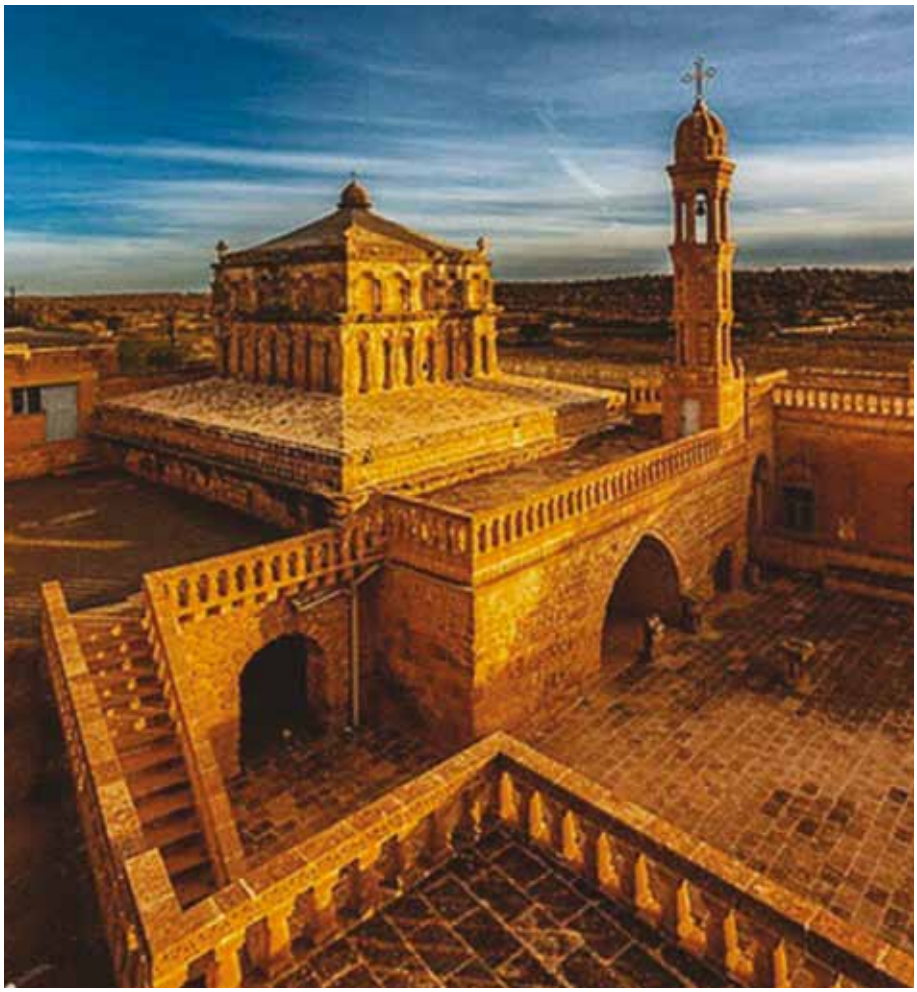


İNCEK PRESTIGE, ANKARA

İncek Prestige is one of the most prestigious residential projects in Ankara. It is in a booming residential area in the Turkish capital and extends over an area of 60,000 m^2. It includes 765 residential units, shops, indoor and outdoor swimming pools and large recreational and games areas for adults and children. A lot of care was taken when choosing the most suitable construction materials. Mapei products were widely used to guarantee quality thermal insulation and soundproofing and efficient, attractive protection for the façades.

THE MOTHER MARY ASSYRIAN CHURCH, MARDİN

The Mother Mary Assyrian Catholic Church was built in 1860 in Mardin, a city in southeast Turkey famous for its long tradition of peaceful integration between different religious and ethnic groups. There are twenty one arched columns in the church, as well as round masonry columns, various parapets and antique sections in wood. A major redevelopment programme was recently inaugurated in the city of Mardin to restore many of its ancient buildings, which included the Mother Mary Assyrian Catholic church. Numerous Mapei products from the MAPE-ANTIQUE line were used to restore various parts of the church to ensure efficient, long-lasting protection without compromising the evocative atmosphere of the building. These included MAPE-ANTIQUE LC and MAPE-ANTIQUE I hydraulic binders, MAPE-ANTIQUE INTONACO NHL transpirant base render and MAPE-ANTIQUE ALLETTAMENTO masonry mortar.



MERCEDES BENZ CAR PLANT, **AKSARAY**

In 2014 the Mercedes Benz Motor Company started a heavy investment programme on their car manufacturing plant in Aksaray in southern Turkey. The complex extends over an area of 5,500 m^2 and is mainly dedicated to the production of lorries and trucks. ULTRATOP self-levelling mortar was used for a number of the floors inside the plant to make the surfaces resistant to abrasion, after which they were coated with a layer of ULTRATOP STUCCO special hydraulic binder-based grout to create a semi-matt finish. As well as these products, the substrates were treated with PRIMER SN epoxy primer and the joints in the floors were sealed with MAPEFLEX PU20.

POINT BORNOVA RESIDENTIAL COMPLEX, **IZMIR**

The Point Bornova Residential Complex in Izmir, a city on the western coast of Turkey, extends over an area of 23,000 m^2 and includes numerous residential units and a shopping centre with a retractable roof. This building has been awarded LEED GOLD certification for eco-sustainable projects and Mapei played their part in this achievement by supplying building and waterproofing products. Going into detail, PLANITOP 217 was used to skim various surfaces to leave a coarse-textured, natural finish, EPOJET LV to seal micro-cracks, PLANITOP 530 for smoothing with a a fine-textured, natural finish, and MAPEGROUT 430 fibre-reinforced thixotropic mortar to repair concrete.
Apart from these products, MAPEPLAN TM synthetic membrane was used to waterproof 8,000 m^2 of roofs. This product was chosen by the designers for its high mechanical strength and resistance to ageing and UV rays and also played a part in the overall project being awarded LEED certification.

HALL D TOULOUSE-BLAGNAC AIRPORT

A RATIONAL, LUMINOUS ARCHITECTONIC STRUCTURE HELPS MAKE AIRPORT OPERATIONS MORE EFFICIENT

Inaugurated in 1953, Toulouse Airport has become increasingly important and is now the sixth biggest airport in France for number of passengers. The structure extends over an area of more than 60.000 m^2, mostly occupied by its two runways and a single terminal divided into four sectors - Hall A, Hall B, Hall C and Hall D – that have been added over the years.
Hall D started operating in March 2011 after four years of construction work. Designed by the architects Cardete and Huet, it is a very evocative structure made from glass, wood and steel and when viewed from above it has the form of an ellipse. It is a very light, airy structure and provides plenty of viewing space towards the outside. The side of the building facing the city of Toulouse has a glass façade measuring 75 m by 17 m, while the side facing the runways is made from special "transpirant" glass, with a structure made from wooden blades that acts as a shield to protect the inside of the building from the sunlight so passengers may have a direct view of the planes while they are waiting to board their flight.

The extension to the airport will ensure the constant growth of air traffic: in 1978, the airport handled 1.5 million passengers in transit, while by the end of 2015 this figure is forecast to rise to almost 8 million.
With the opening of Hall D and the reorganisation of Hall C in 2011, the airport now offers passengers more than 1650 m^2 of shops and luminous, comfortable waiting areas.

WHAT'S NEW FROM MAPEI

Once passengers waiting to board their flight have gone through security and they arrive in the reserved area, they can see for themselves what new things the Toulouse-Blagnac Airport has on offer; first and foremost La Place, or "The Square". This is a shopping area set in a relaxing, pleasant, colourful space located in front of the boarding gates, with red desks arranged to form the arc of a circle. It sports a wooden floor (approximately 800 m^2) and the flooring contractor that carried out the installation chose to use Mapei products.


D
Embarquement
Boarding - Embarque
Boutiques
Shops - Tiendas

The first step was to prepare the substrate by treating the screed with PRIMER G synthetic resin-based primer in water dispersion diluted 1:2 with water. PRIMER G promotes adhesion and provides uniform absorption of substrates before applying a smoothing compound or an adhesive to bond the various materials chosen.
Before installing the wooden floors, the surfaces were smoothed over with MAPESOL 3 to make them perfectly flat. MAPESOL 3 is a high-performance smoothing and levelling compound spread in layers from 3 to 10 mm thick which is only manufactured and distributed on the French market by Mapei France.
After levelling the surface with MAPESOL 3 – the product is ready for laying after 4/6 hours - the wooden floor was bonded in place with ULTRABOND ECO S955 1K one-component, solvent-free, sililated polymer-based adhesive with very low emission level of volatile organic compounds (EMICODE EC1 R Plus-certified).
The joints in the wooden flooring were sealed with SILWOOD DECKING solvent-free, sililated polymer-based sealant. Before applying the sealant, the correct size of the joints was gauged by inserting 15 mm diameter MAPEFOAM extruded foam polyethylene cord.

This article was taken from issue no. 39 of *Mapei&Vous*, the in-house magazine published by Mapei France, whom we kindly thank. We would also like to thank the Toulouse-Blagnac Airport authorities, the company 2CP and Cardete & Huet Architects for their kind contribution.

ABOVE. PRIMER G and MAPESOL 3 were applied to prepare substrates in the waiting areas.
BELOW. The wooden flooring was bonded with ULTRABOND ECO S955 1K and sealed with MAPEFOAM and SILWOOD DECKING.

IN THE SPOTLIGHT

ULTRABOND ECO S955 1K
It is an one-component, sililated polymer-based adhesive without water or solvents, with a very low emission level of volatile organic compounds (EMICODE EC1 R Plus). ULTRABOND ECO S955 1K is used for bonding prefinished materials, lamparquet, slats, floorboards and all types of parquet on cementitious screeds, screeds made using MAPECEM, MAPECEM PRONTO, TOPCEM, TOPCEM PRONTO and similar products, old wooden floors, ceramic, marble, terrazzo, etc. and anhydrite screeds. It is also suitable for heated substrates. No catalyser is required, therefore no mixing.
It can contribute up to **5 points** to obtain the **LEED** certification.

TECHNICAL DATA
Terminal D, Toulouse-Blagnac Airoport, Toulouse (France)
Period of Construction: 2007-2011
Year of the Mapei Intervention: 2011
Intervention by Mapei: supplying products for preparing the substrates and installing wooden floors
Design: Cardete & Huet Architects
Client: SA Aéroport de Toulouse-Blagnac
Installation Company: 2CP
Mapei Coordinator: Eric Bougues, Mapei France
Photos: Philippe Garcia, Toulouse-Blagnac Airoport

MAPEI PRODUCTS
Preparing the substrates:
Primer G, Mapesol 3*
Installing and grouting wooden floors: Mapefoam, Silwood Decking, Ultrabond Eco S955 1K.
* This product is only manufactured and distributed on the French market by Mapei France

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

Ultrabond

Bring the sky into the room.

Ultrabond Line,
for a perfect bond to guarantee **hold**,
quality and **respect for the environment**
with **every type of parquet**.

Product info

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ADHESIVES · SEALANTS · CHEMICAL PRODUCTS FOR BUILDING

H&M STORE IN NAPLES

A FAMOUS INTERNATIONAL CLOTHING BRAND CHOSE RESIN FLOORS FOR THEIR STORE IN AN ANTIQUE PALAZZO IN THE CENTRE OF NAPLES

PHOTO 1. TOPCEM PRONTO ready-to-use mortar was used to make the new screed.
PHOTO 2. The surface was treated with PRIMER SN and then broadcast with QUARTZ 1.2 quartz sand.
PHOTO 3. The new seamless flooring was made from ULTRATOP with a "natural" finish.

At the end of 2011 in Naples, after being closed for three years, what used to be known as the Rinascente Shopping Centre Building in the central Via Toledo was given a new lease of life by being transformed into a new store for the H&M brand.
The giant Swedish clothing chain, founded in 1947, recognised the high market potential in the capital city of the Province of Naples and seized the opportunity to establish their presence inside a building in the centre of the city that was already well known in the whole of the Naples area. The Liberty style building was rescued from the poor state it had been in and a new H&M store covering five floors with its very own take on interior design was inaugurated.
With other international brands also opening new stores, the area around Via Toledo has been transformed into an open air shopping centre and is well connected to the rest of the city thanks to the new Toledo terminus along line 1 of the underground railway.

CREATING A SEAMLESS FLOOR

Redevelopment work on the inside and outside of the building started at the beginning of 2011. The intention was to combine refined, minimalist interior design using cutting-edge products and systems to limit the time required to build the flooring, while at the same time guaranteeing the strength and resistance required, as well as the functionality and style specified by the client. After carrying out a survey of the site, Mapei Technical Services recommended a series of products to prepare the substrates and build the flooring over a total surface area of around 3,300 m^2.
After carefully analysing the existing floor, Mapei Technical Services suggest to completely demolish and replaced it with a new solid, compact, unbonded screed that would be thick and strong enough to bear the design loads. For this new screed, which had to be at least 4-5 cm thick, Mapei Technical Services chose TOPCEM PRONTO ready-to-use, normal-setting, controlled-shrinkage mortar for quick-drying (4 days) screeds. Once the TOPCEM PRONTO substrate had been dried and cured as specified, a seamless floor was built using ULTRATOP self-levelling mortar with a "natural" finish which provides good resistance to abrasion, particularly suitable for floors left on view. The TOPCEM PRONTO substrate was initially prepared by sanding the surface and then applying by trowel a layer of PRIMER SN

IN THE SPOTLIGHT

ULTRATOP
It is a self-levelling product in powder made up of special quick-drying and quick-setting binders, specially graded silica sand, synthetic resins and special admixtures. ULTRATOP is used internally in public and industrial buildings, for levelling and smoothing new or existing concrete and ceramic substrates in thickness from 5 to 40 mm, to make them suitable for heavy pedestrian use in shopping centres, offices, shops, showrooms and areas where rubber-wheeled vehicles are in use. It may be left as a finished floor due to its high mechanical strength and resistance to abrasion.
It can contribute up to **3 points** to obtain the **LEED** certification

PHOTO 4. Sanding the TOPCEM PRONTO screed.
PHOTO 5. The finished flooring after applying MAPEFLOOR FINISH 630 acrylic filming agent with a wax spreader.

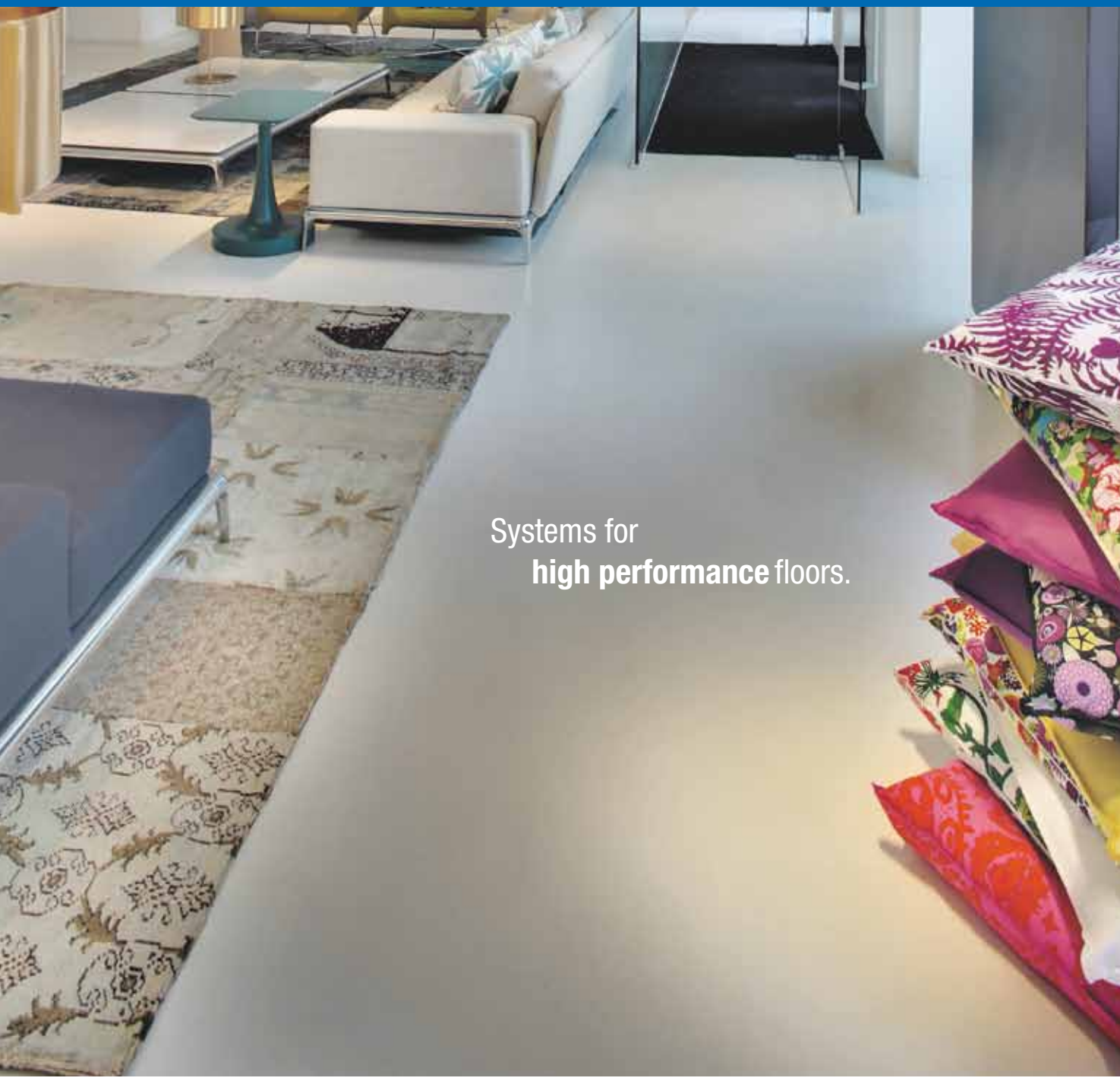
pre-fillerized two-component epoxy primer. Immediately after applying the primer, the surface was broadcast with QUARTZ 1.2 quartz sand. The next step was to apply ULTRATOP self-levelling cementitious mortar with a rendering machine with a worm-screw feeder. Within 24 hours of applying ULTRATOP, joints were created in the floor to limit the formation of cracks using special joint-cutting equipment. After removing all the dust from the surface, MAPEFOAM closed-cell, extruded foam polyethylene cord was inserted into the joints and the joints were sealed with MAPEFLEX PU45 paintable polyurethane sealant and adhesive with a high modulus of elasticity.

Due to requests from the client and designer to provide flooring with good resistance over the years and limit the absorption, it was recommended to protect the surface of the flooring by applying MAPEFLOOR FINISH 630 with a wax spreader, a two-component protective acrylic filming agent that provides good mechanical and chemical resistance.

TECHNICAL DATA
H&M Showroom, Naples (Italy)
Period of Construction: 19th century
Year of the Intervention: 2011
Intervention by Mapei: supplying products for building new screeds and cementitious floors
Design and Works Direction: Daniele Bonati
Client: H&M Hennes & Mauritz
Site Direction: Salvatore Santamaria, Marcello Lombardi
Main Contractor: Cora Banche Srl
Resin Floors Contractor: Vissa Srl
Mapei Distributor: Saces Srl
Mapei Coordinators: Luca Velardo, Renato Soffi, and Antonio Fimiani, Mapei SpA (Italy)

MAPEI PRODUCTS
Building new screeds: Topcem Pronto
Building and finishing cementitious floors: Mapefloor Finish 630, Mapefoam, Mapeflex PU45, Primer SN, Quartz 1.2, Ultratop

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



Mapefloor System & Ultratop System

Products and systems with a low VOC content for making high-strength, high-performance **resin and cementitious floors** resistant to aggressive chemicals, ideal for new floors and quick repairs to old, worn floors.

Product info

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PALACE GARDEN BAZAAR IN BUDAPEST

A UNESCO WORLD HERITAGE LISTED HISTORICAL BUILDING REGAINED NEW LIFE

The Palace Garden Bazaar was built in Budapest between 1875 and 1883 in Neo-Renaissance style after plans drawn up by the Hungarian architect Miklós Ybl. The building is one of the true masterpieces of Romantic architecture in Hungary, gaining much praise due to its sheer beauty and balanced ratios ever since its official opening in 1883.

It was initially used as a sales and trade center while later hosted art studios, exhibition rooms and various educational institutions. The building was seriously damaged in the 2nd World War, then served as the Buda Youth Park from 1961 onwards, until its conditions became critical and it had to be closed down in 1984. Although numerous projects were drawn up about its possible utilization, Palace Garden Bazaar remained unused for nearly thirty years. Today the Palace Garden Bazaar is an UNESCO World Heritage site, but was at the same time it is listed as one of the 100 most endangered monuments since 1996.

The preservation of even the smallest details of the original structure was the primary purpose of the renovation intervention that began in 2011. All the iron railings, gates and fences were restored and the floorings regained their original colors and patterns. The renovated complex now houses exhibition halls (2500 m^2), a multifunctional conference room (900 m^2), restaurants, shops and a tourist information point.

THE RENOVATION INTERVENTION

The renovation of the Palace Garden Bazaar was aimed at refreshing the cultural life and improving the public services in the Hungarian capital.

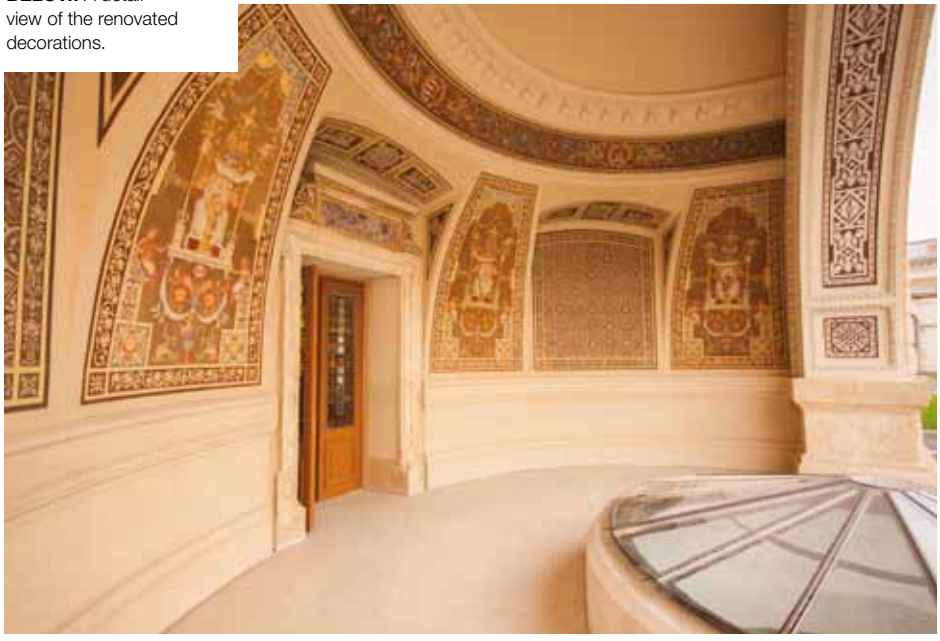
The project included the restoration of the existing 8988 m^2 building, the construction of an underground garage and some new structures covering 17,722 m^2, and the completion of a 8734 m^2 green space including a garden with a courtyard.

After the renovation project was launched in 2011, financial and architectural planning followed, contractors were then selected, and the actual reconstruction works started in the summer of 2013. Total costs amounted to about 28.5 million Euros, out of which 21.5 million Euros were paid by the European Union.

INSTALLING STONE AND CERAMICS IN A HISTORICAL BUILDING

Almost all new floors were installed using Mapei products. Before installing the stone coverings, vertical and horizontal surfaces of the stairs had been levelled and smoothed with PLANITOP FAST 330 quick-setting, fibre-reinforced cementitious levelling mortar for internal and external floors and walls. This is a grey-coloured powder made using special cementitious binders, selected aggregates materials, synthetic resins and special additives. When mixed with water, it forms a blend with good workability which may be applied on vertical surfaces by

LEFT. An external view of the Palace Garden Bazaar.
BELOW. A detail view of the renovated decorations.



trowel, characterised by its high bonding strength to all substrates normally used in the building industry.
PLANITOP FAST 330 hardens quickly even when applied in thick layers without shrinking or cracking, and forms a strong layer suitable for laying ceramic, glass mosaic and stone coatings.
The 5 × 5 cm Javan lava stone slabs from Indonesia were bonded with KERAFLEX S1 (which is manufactured and distributed on the Hungarian market by Mapei Kft.) on a 5000 m^2 surface. The walls and floors, as well as the surfaces of the columns and staircases in the multifunctional space facing the lecture rooms, were all covered with this kind of slabs.
The joints were grouted with ULTRACOLOR PLUS anti-efflorescence, quick-setting and drying polymer-modified mortar with water-repellent DropEffect® and mould-resistant BioBlock® technology. The product is used for internal and external grouting of floors and walls in all types of ceramic, terracotta, stone material, and glass and marble mosaic. It is ideal for grouting floors and walls in areas subject to intense traffic (airports, shopping centres, restaurants, bars, etc.), in residential areas (hotels, private houses, etc.), as well as on façades, balconies, terraces and on swimming pools.
Stairs in service areas and the floors in the corridors, dressing rooms and bathrooms were covered with porcelain tiles using KERAFLEX cementitious adhesive with no vertical slip and extended open time. This adhesive is ideal for interior and exterior bonding of ceramic tiles, porcelain tiles, stone materials and mosaics of every type on floors, walls and ceilings. It is also suitable for spot bonding of insulating materials such as expanded polystyrene, rock and glass wool, Eraclit® (wood-cement panels), sound-deadening/reduction panels, etc.
The substrates had been previously treated with PRIMER G synthetic resin primer in water dispersion with a very low content of volatile organic compounds (VOC), then smoothed with ULTRAPLAN RENOVATION and ULTRAPLAN ECO 20 self-levelling smoothing compounds which are manufactured and distributed on the

ON THIS PAGE.
The interiors of the Palace Garden Bazaar feature an interesting mix of historical and modern elements.

IN THE SPOTLIGHT

KERAFLEX

It is an improved (2) slip resistant (T) cementitious adhesive (C) with extended open time (E) classified as C2TE according to EN 12004. It is used for the interior and exterior bonding of ceramic tiles porcelain, stone materials and mosaics of every type on floors, walls and ceilings. KERAFLEX is a grey or white powder composed of cement and graded aggregates. It is easily workable and highly thixotropic; it can be applied on a vertical surface without dripping or letting the tiles slip, even for heavy tiles. Tiles can be installed from the top towards the bottom without using spacer pegs; it ensures perfect adherence to all materials normally used in building; it hardens without appreciable shrinkage. It can contribute up to **4 points** to obtain the **LEED** certification.

LEFT. The bathroom substrates were waterproofed with MAPEGUM WPS quick-drying, flexible liquid membrane.
RIGHT. The floor substrates of the stairs, corridors, dressing rooms and bathrooms were first smoothed with PLANITOP FAST 330, then covered with porcelain tiles using KERAFLEX adhesive. Joints were grouted with KERACOLOR FF FLEX which is distributed on the Hungarian market by Mapei Kft.

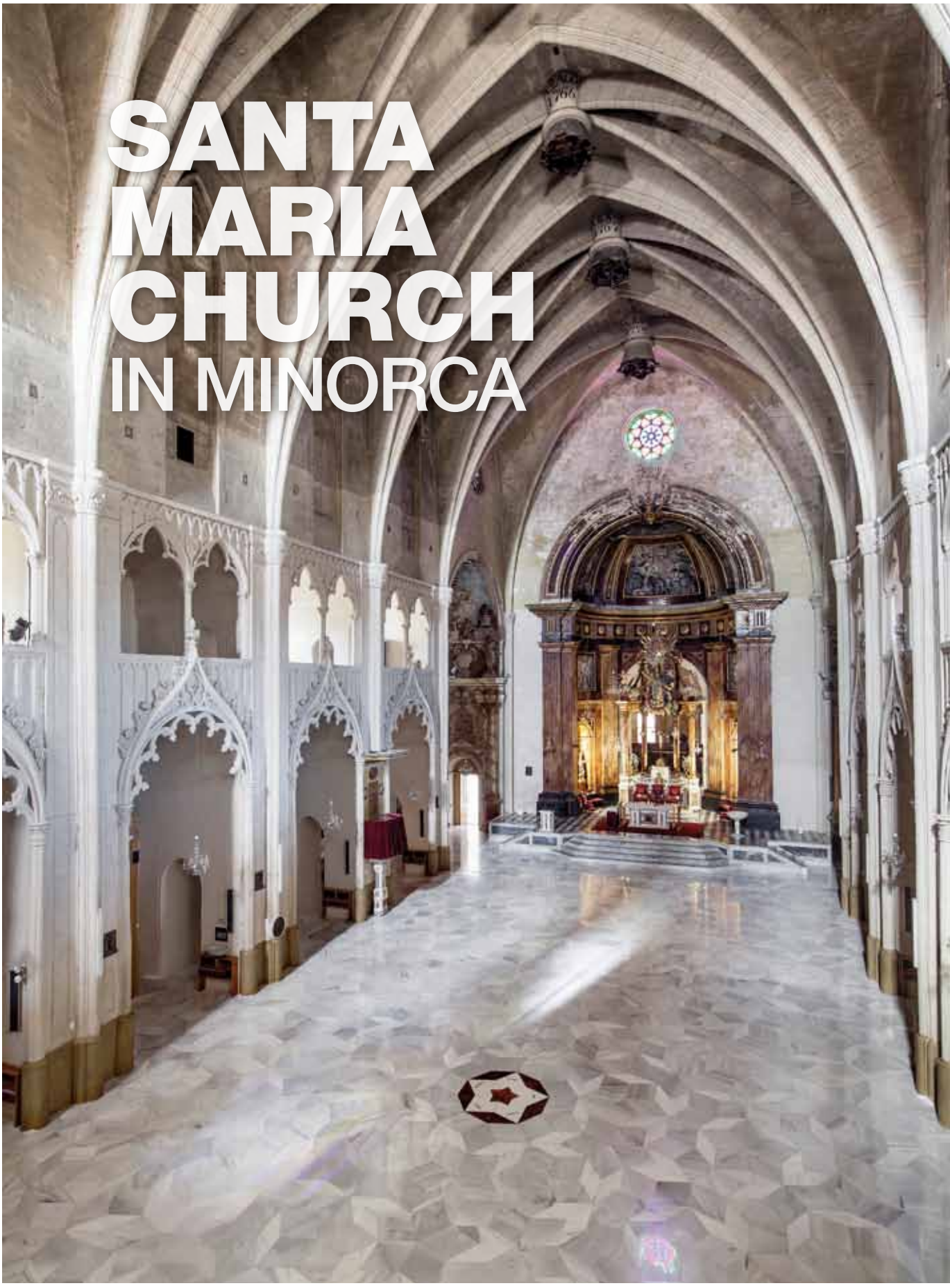
Hungarian market by Mapei Kft.
The substrates in the bathrooms were waterproofed with MAPEGUM WPS quick-drying flexible liquid membrane and MAPEBAND PE 120 PVC tape. MAPEGUM WPS is a ready-to-use, solvent-free, one-component, grey-coloured paste with a base of synthetic resins in water dispersion. It has a thixotropic consistency which makes it easy to apply on horizontal, sloping and vertical surfaces. After rapid evaporation of the water content, MAPEGUM WPS forms a flexible membrane which is not sticky and which is strong enough to withstand light pedestrian traffic. It also forms an excellent surface which bonds perfectly to adhesives used for laying ceramics, marble and natural stone.
Ceramic tiles were bonded in this case with KERAFLEX cementitious adhesive and joints were grouted with KERACOLOR FF FLEX mortar which is distributed on the Hungarian market by Mapei Kft.

TECHNICAL DATA
Palace Garden Bazaar, Budapest (Hungary)
Period of Construction: 1875-1883
Design: archt. Miklós Ybl
Main Contractor: Swietelsky VHB consortium
Period of the Intervention: 2013–2014
Design: Dévényi Építész Iroda and Tamás Dévényi
Client: Hungarian Government
Intervention by Mapei: supplying products for substrates preparation, waterproofing, installation of ceramic tiles and Stone slabs
Works Director: Zsolt Kelemen
Contractors: Swietelsky-VHB consortium
Ceramic and Stone Installation Contractor: Ratskó Bau Kft.
Mapei Distributor: Ratskó Bau Kft.
Mapei Coordinators: László Nagy and Gergely Garay, Mapei Kft. (Hungary)

MAPEI PRODUCTS
Preparing the substrates: Eco Prim Grip, Planitop Fast 330, Primer G, Ultraplan Eco 20*, Ultraplan Renovation*
Waterproofing substrates: Mapeband PE 120, Mapegum WPS
Installing ceramic tiles and stone slabs: Keraflex, Keraflex S1*
Grouting joints: Keracolor FF Flex*, Ultracolor Plus.
* These products are manufactured and distributed on the Hungarian market by Mapei Kft.

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

SANTA MARIA CHURCH IN MINORCA



RENOVATING THE FLOORS IN AN ANCIENT CHURCH IN THE BALEARIC ISLANDS

Maó is the capital of Menorca Island, belonging to the Balearic Islands. It originated as the Mediterranean Portus Magonis, bearing the name of the Carthaginian general Mago. Under the Romans it was a *municipium* (privileged town). The Arab pirate Barbarossa besieged and captured the place in 1535, and in 1558 it was sacked by corsairs. The British, after their seizure of Maó in 1708, declared it a free port in 1718. In 1756 it fell into the hands of the French, was restored to the British in 1763, recovered by the Spanish in 1781, and in 1802 finally ceded to Spain.

Among its important landmarks one finds the Santa María de Maó Church, which was built in the 18th century (between 1748 and 1772) on the ruins of an old gothic church from the 13th century. The interior is in the neo-gothic style, with one sole nave with vaults and, along the sides, various chapels dedicated to various saints.

Of note is the monumental organ built in 1810 by the maestros Francisco Otter and Joan Kiburz, of 15 m in height and 9 m in width, with four keyboards and 3.006 sonorous tubes, of which 197 are of wood and the rest of metal.

RESTORATION OF THE FLOORING

On occasion of the celebration of the organ's second centenary, work began on consolidating the floorings in the church, and the eight new bells which form the harmonic percussion ensemble were installed.

Mapei collaborated in the restoration and rebuilding of the church's flooring. Its serious structural faults and the safety problems they generated made this comprehen-

ABOVE A view of the flooring featuring an aperiodic mosaic.
BELOW. After building the screed with TOPCEM, the slabs were bonded with KERABOND+ISOLASTIC and the joints were grouted with KERACOLOR FF+FUGOLASTIC.

sive consolidation work on the flooring necessary. Part of the work was carried out under the aegis of its the Balearic Islands Government, that devised a special restoration plan for historical buildings.
The structures that were damaged or sunken were restored and consolidated to ensure the required safety level for public use.
The installation work on the floors was carried out using white marble from the city of Macael, in Andalusia (Spain), as required by the Balearic Islands Government. The aim was to reproduce the original chromatics of the church's very first floor, which was entirely in white marble. The design of the flooring features an aperiodic mosaic lacking in regular symmetry. The entire flooring was built with two elements - rhombuses of different widths – in which different patterns are repeated, amongst them some five-pointed stars which appear radially from the center of the nave. These two elements allow for an infinite number of different combinations, which makes the flooring unique.
The star located in the centre of the nave stands out for its red marble. It reproduces the anagram of Christ in the middle, the expression in Greek "Catholic Church" and the name of the five continents, marking the geographical direction in which they are found.

MAPEI'S INTERVENTION

Mapei products were chosen for renovating these floors which were to be subjected to intense foot traffic.
Once the existing flooring had been completely removed, TOPCEM special normal-setting, quick-drying (4 days), controlled-shrinkage hydraulic binder was used to build the new screeds.
The new marble slabs were bonded with the cementitious adhesive KERABOND in its white shade, mixed with ISOLASTIC elasticising latex.
Joints were grouted with KERACOLOR FF pre-blended, high-performance, polymer-modified cementitious mortar mixed with FUGOLASTIC polymer liquid admix to improve the grout adhesion and mechanical strength and to reduce porosity and absorption.

This article was taken from *Realidad Mapei*, n. 11, the in-house magazine published by Ibermapei, the Group's Spanish subsidiary, whom we would like to thank.

IN THE SPOTLIGHT

TOPCEM

It is a special hydraulic binder which, when mixed with graded aggregates and water, can produce mortars that can harden in approximately 24 hours, and dry in approximately 4 days. It is used for the formation of bonded, unbonded and floating screeds on both existing and new concrete prior to the installation of wood, PVC, linoleum, ceramic tiles, natural stone, carpet or any other flooring where rapid drying is required for short installation times. It is suitable for indoor and outdoor use. It can contribute up to **2 points** to obtain the **LEED** certification.

TECHNICAL DATA

Santa Maria de Maó Church, Maó, Menorca (Spain)
Period of Construction: 13th century, rebuilt in 1748
Year of the Mapei Intervention: 2011
Intervention by Mapei: supplying products for building the screeds and laying marble slabs on floorings
Works Direction: Jesus Cardona Pons
Laying Company: Menorca Obres Loga, S.L.
Mapei Distributor: Bigmat A. Palliser, S.L.
Mapei Co-ordinator: Ferran Farré, Ibermapei (Spain)

MAPEI PRODUCTS

Building the screeds and preparing the substrates: Topcem
Bonding marble slabs: Kerabond+Isolastic
Grouting joints: Keracolor FF+ Fugolastic

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

Opera House - Florence (Italy)

Keralastic / Keralastic T

CE EN 12004

R2 R2T

Keralastic, two-component, high performance, **polyurethane adhesive** for ceramic tiles and stone material, also available in thixotropic version (**Keralastic T**).

- Easy workability
- **Perfect adhesion on all surfaces** used in building
- If applied in a continuous layer, **it ensures perfect waterproofing** before installing tiles with the same product
- **High deformability**
- Hardens by chemical reaction without shrinkage until it becomes **highly resistant**
- **Keralastic T** features highly thixotropy: **it can be applied vertically without slump** and without letting even **large tiles** slip. **Keralastic T**'s performances and slipping strength are in compliance with EN 12004.

APPLICATION

Product Info

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RE STELVIO MAPEI 2015

RIDING AND CYCLING UP ONE OF EUROPE'S MOST BEAUTIFUL MOUNTAIN ROADS

Although 2104 was the final edition of Mapei Day, the 31st edition of Re Stelvio Mapei - the legendary cycle climb up Stelvio Pass, which was held in Bormio on 12th July, 2015 - pays testimony to an ongoing relationship with a race and region of the country that really are in Mapei's heart.

The ten editions of Mapei Day have been ten celebratory weekends that have always brought together the ommunity of Bormio and so many sports fans from all over the world. Even though this event has come to an end, the powerful and bonds between Mapei and all its partners, friends and customers, who, all over the world, share the same ethical principles and values of sport, certainly have not been broken.

Re Stelvio's 21.097 km of exhilarating exertion correspond to a height gain of 1533 m, making it the king of climbs: an intriguing bike and running race up 40 legendary switchbacks along the road leading from Bormio to Stelvio Pass: the ultimate "Coppi Summit" as Italians like to call it after their great cycling champion. The animal featured on the race's commemorative jersey this year was the 'dahu', a legendary goat-like creature very familiar to European mountain dwellers. The event was organised by Mapei - Name Sponsor of the race - together with Unione Sportiva Bormiese working in partnership with the Mapei Sport Centre. Other sponsors of the event were Banca Popolare di Sondrio, Shimano, Colnago, Santini, Enervit and Giussani.

BELOVE. A view of the climb and a tribute to Professor Aldo Sassi.

RE STELVIO CYCLE RACE AND BIKE RIDE

RE STELVIO MAPEI AND ALDO SASSI BIKE RIDE

Almost 2500 people entered the five different competitions held on the morning of Sunday 12th July 2015 from Bormio to Stelvio Pass. 2002 people finished the half marathon, amateur running race, classic Re Stelvio bike race and Mapei bike ride dedicated to Aldo Sassi, the never-to-be-forgotten professor, who, together with Giorgio Squinzi, was the head and founder of the Mapei Sports Research Centre - and also one of the people most actively involved in devising and organising the very first Mapei Day held 11 years ago. The CEO of Mapei Group, Giorgio Squinzi (who had a prior engagement in Milan at Expo 2015) sent a long-distance message to set the event under way, which once again confirmed cycling's 'love affair' with the mountains, Unione Sportiva Bormiese's organisational expertise and Mapei's ability to bring people together in the name of sport.

THE WINNERS

Niki Giussani riding for Equipe Exploit won the 2015 men's Re Stelvio Mapei race and Susan Du Plessis won the women's race representing Bormiese Ciclismo's women's team. Niki Giussani was followed home by the German rider Christoph Fuhrbach (Neustadt) and Riccardo Romani representing Alta Valtellina Bike. The US Bormiese team put on a great show in the women's event with Susan Du Plessis climbing up the Stelvio at an average speed of just under 15 km/hour. Just behind her came the rider Elisa Fleishmann (GS Eurovelo Cicli) together with Marta Binda (Cellar Team tredici). The almost 1000 riders who took part in the "Aldo Sassi" fun bike ride were led home by Claudio Pedranzini, ahead of Walter Illini and Adriano Berera. The best performance in the women's race came from Marion Alt.

THE HALF MARATHON

The Bormio-Stelvio half marathon was also part of the Re Stelvio Mapei 2015 event. The men's race was won by Michele Belluschi (Daini Carate Brianza). The women's race was won by Ivana Iozzia representing Corradini Rubiera. Over 500 professional and amateur runners took part in the competition organised by Fidal (Italian Athletics Federation). Michele Belluschi finished ahead of Matteo Lucchese (Val Montone) and Graziano Zugnoni representing the team Gruppo Podistico Santi Nuova Olonio. Ivana Iozzia ran up the Stelvio at an average pace of 5'17". Second place in the women's race went to Elga Caccialanza (Atletica Due Perle) and third to Debora Benedetti (Team Pasturo). Abdenbi Lagruni set the fastest time in the amateur running race, finishing ahead of Alessandra Marelli and Davide Menegola.

THE MAPEI GOLF TROPHY

A numerous group of Mapei's friends and business partners took part in the 11th Mapei Golf Trophy on Sunday, 12th July. The event was open to all members of FIG (Italian Golf Federation) and held on La Fornace golf course in Bormio. Over 50 golfers took part in the individual event – 2 categories, 18-holes with Stableford scoring system - on a sunny afternoon out on one of the best mountain golf courses in Italy. Luisa Freschi won the second category event and Marco Bravo won the first category event.

TOP OF THE PAGE. The start of the half marathon.
LEFT. The finish line.
ABOVE. Awarding the prizes for the golf competitions that were held on La Fornace golf course in Bormio.

SASSUOLO: GOALS AND SUCCESSES

AFTER A GREAT START TO THE SEASON, SASSUOLO IS PLAYING WELL, BATTLING HARD AND MAKING A GREAT IMPRESSION

Sassuolo has begun its third season in the A playing clever, attractive and fearless football.

Quite a contrast with the previous two seasons when - initially due to that inevitable shock to the system affecting newly promoted teams and then, last year, perhaps because the team still did not realise just how good it was - the results just would not come or were, at best, up-and-down. A fantastic start to the season rounded off perfectly by a famous victory against Juventus on 28th October. Following the fine performance against A.C. Milan that unfortunately ended in defeat, there was not an empty seat at Mapei Stadium in Reggio Emilia for the acid test against Juventus, the reigning Italian league champion. In the end the Black-and-Greens won all three points, taking them right up into the highest echelons of the league table and giving the manager, Eusebio Di Francesco, a prestigious victory that was so important for

28TH OCTOBER 2015. HISTORY-MAKING DAY AT MAPEI STADIUM: super Sassuolo beat Juventus 1 - 0.

YOUTH, ITALIANS AND ORGANISATION TO KEEP ON WINNING

"Winning the Serie A league? It was just a joke I made as a fan of the team, but people took me seriously". That is how Giorgio Squinzi, the President of Sassuolo, began his interview with the Italian newspaper *Il Giornale* on 4th October. With Sassuolo in joint fourth place in the league along with Lazio, the owner decided to clarify what this season's real goals were: "I do not think the team can win the championship, but it could qualify for the UEFA Europa League, in fact I'm counting on it, even

SASSUOLO 2015/16: SERIOUSNESS AND STYLE RIGHT ACROSS THE PITCH

showing everybody just how much the team has progressed. Still unbeaten at home and just 5 points off the top of the table and 12 points above the relegation zone, Sassuolo has kept on astounding everybody over the first 10 games of the season, much to the delight of its growing fan base. All this while keeping their feet firmly on the ground.

"There are still lots of matches to play - so the manager, Eusebio Di Francesco, pointed out during the press conference after the 1-0 win over Juventus - obviously if we continue along this path we will do extremely well, but I do not like putting the cart before the horse, we must keep on working with the same humility and determination as we are at the moment. Not all the games will be against Juventus, I need to make sure the lads keep this same attitude against all our opponents. When we have got forty points, I will tell you what our target is. I am not saying anything before then, we need to keep our feet firmly on the ground, we need to keep on playing well, if we let ourselves get carried away we will come unstuck against the smaller teams."

Yes indeed, because another great quality this Sassuolo team has is the way it reacts to negative situations. With our feet firmly on the ground and an awareness of what we can do, we can go a finishing ahead of Inter Milan. For an old A.C. Milan fan that would be really special".

"I'm sure - so Squinzi added - our team has what it takes to do well this year: 7 of our 11 first-team players have been playing together for four years". Referring to the distinctive traits of the organisation of Sassuolo team, the owner of the black-and-greens summed up the period of great form the team from Emilia Romagna region was going through: "Another important factor is that we have only 3 foreign players and I think that makes a difference. I would not like to be the manager of the teams we have played against so far with 8-9 foreigners in their starting line-ups. I do not know how they can understand each other, how they prepare for the matches and organise training sessions when they speak 8-9 different languages: it's a kind of football Tower of Babel. So, yes, I do think certain factors are in our favour and comply with a strategy we worked out at the drawing board: young Italian players, if possible".

All this in accordance with Mapei's corporate policy focusing on internationalisation, while paying careful attention to local requirements and developing a local strategy of constant growth. A growth strategy that must be healthy and balanced, always working in a medium-/long-term perspective. This is exemplified by Sassuolo's young, winning, Italian-based team at the beginning of this season.

» WITH OUR FEET FIRMLY ON THE GROUND AND AN AWARENESS OF WHAT WE CAN DO, WE CAN GO A LONG WAY

TIM CUP: SASSUOLO QUALIFIES FOR THE NEXT ROUND AFTER WINNING THE LOCAL DERBY AGAINST MODENA

Sassuolo upheld its role as favourite by winning the mid-summer local derby against Modena. Hernan Crespo's "Canaries" matched Eusebio Di Francesco's black-and-greens for the first 45 minutes and it was 0-0 at half time, with the only real chance coming in the 12th minute when Sansone's header from Vrsaljko's cross hit the post. But in the second half the difference in class between the two teams really began to show: Modena could not hold on any longer and, after Sassuolo really began to pile on the pressure, Falcinelli broke the deadlock in the 52nd minute. A quarter of an hour later it was 2-0, when Floro Flores, who had come on in place of Sansone, lobbed the ball over Manfredini and then slotted it into the net after being beautifully served by Berardi. Sassuolo went through to the next round and will be playing against Cagliari (2nd December) in the next round after they beat Trapani on penalties (the game finished 1-1 after 90 minutes' regulation time). If Sassuolo wins this game they will play against Inter Milan on 15th December.

Last updated on 28/10/2015.

THESE PHOTOS.
Some pictures of the 2015-2016 Serie A championship.

long way. The CEO of Sassuolo, Giovanni Carnevali, is in no doubt, too, as he sums up the current situation: "We have achieved some good results in Serie A. Manager Di Francesco gives us that something extra. We keep on trying to improve and it's really important to have the backing of a company that believes in us and holds us in such high esteem. Technically speaking, we have tried to make as few changes as possible, maintaining the backbone of the team and just bringing in a few new players, like Defrel and Duncan. Then we have men like Pellegrini and Politano, who scored his first goal in Serie A yesterday. We are keen to focus on young players and only have three foreigners in our squad. Is there any chance Zaza might come back? For the time being there is no reason to think so. We have never discussed this matter with Juventus. We made the decision to release Zaza and we do not think buying him back is the right thing to do. We are just continuing with our project".
Sassuolo is also carefully focused on this season's targets: "Our owner is very ambitious. When we were in the lower divisions we said that one day we would play at San Siro Stadium in Milan: it seemed like a dream. Everybody has ambitions, but you also need to be realistic. We are only a small club and avoiding relegation is our primary target. After that our aim is to get as many points as possible and then we will see". Sassuolo players are not trying to belittle themselves, this is just a reflection of a corporate policy and a line of thinking, whose roots lie in a long-term football project.
At the beginning of the season, Giorgio Squinzi had very clear views on this matter: "The fact that medium-small size clubs are up at the top – so Squinzi pointed out - is also a great sign; we are talking about teams which, like Sassuolo, have had more faith than others in the Italian side of our football league".
And so it is full speed ahead for Sassuolo. There are still lots of matches to play and a long way to go, but there has never been so much desire to see the team play and keep on winning as there is this year.

MAPEI STADIUM HOSTED TWO PRESTIGIOUS MATCHES IN AUGUST

2015 TIM TROPHY: A.C. MILAN WINS ON PENALTIES AGAINST AN EXCELLENT SASSUOLO

The final match of the Tim Trophy, played at the Mapei Stadium in Reggio Emilia on 12th August, began with A.C. Milan on the attack but Sassuolo's goalkeeper Consigli pulled off an acrobatic save. After that it was all one-way traffic with Floro Flores hitting the post for the black-and-greens and then Duncan (7') stroking home a fine shot to beat the young goalkeeper Donnarumma. When the game seemed to be over, Nocerino hooked in a lovely shot to equalise for A.C. Milan. The penalty shootout went as follows: goal by Falcinelli, goal by Matri, goal by Floccari, goal by Cerci, miss by Berardi, goal by Suso, goal by Duncan, miss by Montolivo, miss by Acerbi, goal by Nocerino. In the previous game against Inter Milan, manager Di Francesco opted for the usual 4-3-3 formation, with the new signing Defrel at the centre of the attack supported by Politano and Sansone with Missiroli directing operations with the help of Laribi and Biondini. Brozovic, who was in the starting line-up this time, had the first two shots but neither was on target and it was actually Inter Milan that looked livelier than the first 45 minutes when they lost 2-1 against A.C. Milan. The black-and-greens were trapped in their own half, but after surviving the initial onslaught by Inter Milan they began to move forward. As the Inter Milan team began to tire, Sassuolo took the ascendancy and in the 23rd minute Defrel latched onto a long ball by Cannavaro, beat the offside trap and then slotted the ball past Carrizo. This knocked the wind out of Inter Milan and the home team suddenly found plenty of room to manoeuvre, particularly on the right, where Politano was unmarkable at times.

"TROFEO DE LA CERÁMICA": SASSUOLO – VILLAREAL 1-1

Under the watchful eye of its owner, Giorgio Squinzi, and a crowd of 2086 fans, Sassuolo played its first game of the new season at the Mapei Stadium on 9th August, matching Villareal for much of the game. The final score was 1-1 with Duncan scoring in the 4th minute of the first half and then Nahuel equalising for the away team in the 10th minute of the second half, but the black-and-greens had all the best chances. After taking the lead at the beginning of the match with a goal by Duncan (who tapped in the rebound after his first shot hit the post), Sassuolo was the better team for long periods but ended up paying the price for a lack of clinical finishing. Villareal was not at its best and first Floro Flores (34') and then Berardi (37') almost scored a second goal for Sassuolo in the first half before the away team equalised after an hour's play, when Nahuel scored from close range. Manager Di Francesco, who initially picked his best team, went on to make eight changes after an hour's play (Defrel made his debut and actually hit the post in the 36th minute of the second half), while Villareal manager Marcelino reorganised his own team which looked much more solid after that.

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SASSUOLO
2015/16

From the bottom up:
Front row (from left to right): Matteo Politano; Sime Vrsaljko; Gregoire Defrel; Domenico Berardi; Francesco Magnanelli; Paolo Cannavaro; Nicola Sansone; Alfred Duncan; Karim Laribi.
Second row (from left to right): Franco Giammartino; Maurizio Fanchini; Rino Gandini; Francesco Tomei; Eusebio Di Francesco; Danilo Pierini; Fabrizio Lorieri; Nicandro Vizoco; Marco Riggio.
Third row (from left to right): Davide Biondini; Sergio Floccari; Luca Antei; Alberto Pomini; Andrea Consigli; Gianluca Pegolo; Lorenzo Pellegrini; Marcello Gazzola; Antonio Floro Flores.
Fourth row (from left to right): Alessandro Longhi; Leonardo Fontanesi; Lorenzo Ariaudo; Francesco Acerbi; Simone Missiroli; Federico Peluso; Emanuele Terranova; Diego Falcinelli.

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