

REALTÁ MAPEI





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Magazine - Milan (Italy)

COLOUR SEPARATION AND LAYOUT

Overscan - Milan

PRINTER:

Arti Grafiche Beta - Milan

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PUBLISHER:

Mapei S.p.A.

Realtà Mapei - Bimonthly magazine

Registered by the Tribunal of Milan

n. 363/20.5.1991

Realtà Mapei International is published

4 times per year

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WINNING TOGETHER

by *Giorgio Squinzi*

Italy are world champions and Mapei is proud to have supported the Azzurri throughout this wonderful adventure.

It was, as everybody agreed, a victory for team work.

Buffon's saves, Pirlo's clever passing, Gattuso's determination, Grosso's sudden bursts of pace, and the insuperable Cannavaro, are not enough, on their own, to explain all the reasons for this memorable victory. The fact that team work, rather than individual skills,

was the key means it is impossible to say which Italian player was the decisive factor in winning the Cup. The whole of Mapei identified with this spirit and will to win, which our players showed on the pitch and which is why we believed they would win right from the start.

Claiming that Mapei brought Italy luck is not just an advertising slogan coined after this great win. It expresses an awareness of having, in some way, positively "contaminated" the whole set-up.

Let us not forget that Mapei is used to winning around the world. It has already been successful in cycling and is still a leading player on the world business market.

So alongside Baron De Coubertin's famous saying: "The important is not winning, it is taking part" (which, to tell the truth, has never really reflected the firm's corporate spirit), we and the Italian Football Team, as we strive towards more successes in the future, are entitled to quote the official Olympic motto in Latin: "Citius! Altius! Fortius!" - "Faster! Higher! Stronger!"



Giorgio Squinzi, CEO of Mapei Group, with friends and work partners after the Italian National Football Team's victory of the FIFA World Cup.



MAPEI CONQ

by Adriana Spazzoli

World Champions! A lot of Italian people hoped it would happen, but how many really believed it would? Almost everybody at Mapei. As the World Cup in Germany progressed, there was a growing sense that Mapei's Official Sponsorship of the Italian National Football Team would bring Italy good luck. And it did. Well done the Azzurri and well done Mapei. The company had great faith in the Team and a little bit of luck in sensing that this might well be the year for Italian football.

This very Italian company, rapidly expanding worldwide with great success, really left its mark on the world stage. After sponsoring cycling, the decision to enter the world of top-flight football was justified by the need to attract as much attention as possible to the company by choosing the most popular and closely followed sport by all of its clients. This was a chance to make the company trademark even more widely known and promote new products, but above all an opportunity to get all of its friends and clients even more closely involved in company business and operations. Mapei has chosen sport as the best means of opening up its gates to anybody interested in getting to know the firm better. After all, the entire company moves like a team and its corporate spirit is brimming with principles and values aimed at constantly bettering itself: preparation, training, scientific research, and



then plenty of determination and perseverance in setting about achieving its goals. The company's publicity policy also works along the same lines, focusing on close interaction with the public. For Mapei, as has already been noted, communicating basically means sharing and

engaging. And what better opportunity than a truly global event like a Football World Cup to experience such powerful emotions and really strengthen our own team spirit? Mapei's World Cup was a truly trans-national affair: every single Mapei fan arri-

ving in Germany from all over the world was able to watch his own football team at the Casa Azzurri base and, at the same time, feel part of a team welcoming them all in: Mapei World. It was a crescendo of emotions, an adventure experienced with great intensity by the whole

UERS THE WORLD



This positive trend has really benefited the company which, for all the publicity associated with this prestigious sponsorship deal, is greatly indebted to all its company branches for the efforts they have made so far. The Mapei Sport Service centre in Castellanza (near Milan, Italy) is a fine example and its Human Performance Laboratory is providing vital input for scientific research into training footballers. This is yet another reason why the Italian Football Team's victory has made Mapei and everybody who knows the company so proud.

Finally, let's not forget that Mapei also invited over 1000 Italian guests to come to the World Cup, as well as a further 500 from countries like Canada, the United States, Hungary, Poland, the Czech Republic, Switzerland, Belgium, the Netherlands, Hong Kong and, of course, Germany. To relive the great excitement surrounding this memorable adventure, do not forget that the Mapei website (www.mapei.com) contains the best photos from Italy's matches.

The sheer pleasure of spending time with others is not just connected with those magical moments from the football matches with the athletes out on the pitch; it is also due to the way we are able to share that truly "worldwide" atmosphere with the German people and the multicoloured hoards of fans from all over the globe, proud to be both Italian and international at the same time and happy to be part of the Mapei world.

Thanks Azzurri...
Come on Mapei!!!

In the following pages we relive from the beginning all the matches of the Italian Football Team's adventure in Germany.

company and an unprecedented opportunity for a truly global encounter. The entire Mapei Group got enthusiastically involved in this alluring sports event. The Group's website was literally flooded with pictures and projects connected with football, and each different

subsidiary took the chance to enhance its corporate image and promote its products.

As far as Italy was concerned, the advertising cover was incredible and drew on every important means of communication (TV, radio, newspapers, the web) and plenty of

promotional and merchandising tools. A lot of work and also a great return in terms of image and communication. In fact, an approximate estimate of the advertising value for the visibility of the Mapei logo on TV during the World Cup period would be of around 1 million a day.



**WORLD CHAMPIONS - 9TH JULY 2006
ITALY-FRANCE 1-1 (AFTER EXTRA-TIME)
5-3 ON PENALTIES**

Italy were crowned World Champions for the fourth time at the Berlin Olympia Stadion on 9th July, 2006. The Italian Team beat France on penalties. The score was 1-1 after 120 minutes' play, with Zinedine Zidane, who was later sent off, scoring a penalty and Materazzi equalising.

This time it could not end like the same way as in 1998 and 2000. The wheel goes round and the Nemesis goddess is merciless. In 1998 it was France who knocked Italy out of the World Cup in the quarter finals on penalties and they beat Italy again at the 2000 European Championships with a golden goal by Trezeguet, the same player who missed the vital penalty that allowed Italy to win our 4th World Cup.

Captain Cannavaro lifted the World Cup up in the air at the end of a pulsating game, perhaps not spectacular but certainly exciting. It really took off at the end of the second half of extra-time when Zidane was sent off for butting Materazzi in the chest, the other goal scorer.

For the second time in the history of Italian football, the cup was won on penalties. In 1994 Brazil beat Italy 3-2 at the Rose Bowl stadium in Pasadena.

The first half hinged around the penalty Zidane scored early on. France tried to sit back and defend the lead, but Italy got straight back in the game and equalised in this triumphant FIFA World Cup thanks to a towering header by Materazzi from a corner taken by Pirlo.

The French team was much more on the ball in the second half. Henry dropped back to get more ball and was quite unstoppable at times, but the Italian defence held on. The tactics did not change in extra-time, but, despite France looking much fresher, the Italian goalkeeper Buffon kept everything out until the penalties at the end.



The sequence of penalties:

- | | |
|-----------------------|------------------------------|
| Pirlo (ITA): GOAL | Wiltord (FRA): GOAL |
| Materazzi (ITA): GOAL | Trezeguet (FRA): hit the bar |
| De Rossi (ITA): GOAL | Abidal (FRA): GOAL |
| Del Piero (ITA): GOAL | Sagnol (FRA): GOAL |
| Grosso (ITA): GOAL | |



**SEMI-FINAL - 4TH JULY 2006
GERMANY-ITALY 0-2**



Tuesday 4th July 2006: a memorable date for Italian football! Italy won the right to dispute its sixth World Cup final by beating the home team Germany. Italy and Germany played a very tight semi-final at the FIFA WM-Stadion in Dortmund in front of a full-capacity crowd of wildly cheering fans. The match was eventually decided with less than two minutes of extra-time left to play. Fabio Grosso, the real revelation of the 2006 Italian team, scored the crucial goal: a curling left-foot shot which not even the excellent German goalkeeper Jens Lehmann could not stop.

Del Piero made it two in injury time with a side-footed shot with his right foot into the top corner of the net at the end of a classic counter-attack.

Italy dominated the first half, when both teams each had a great chance to score (Perrotta and Schneider). Italy had more possession but Germany looked more dangerous near their opponent's penalty area, thanks to some clever interchanges between Klose and Podolski.

The pace dropped in the second half and Germany looked the better side: both coaches decided to wait before making any substitutions. Buffon had his work cut out at times but Lehmann was virtually a spectator until extra-time. This was almost 1970 all over again.

Lippi brought on la quinta on the right and it was just the right move. Italy pushed forward and hit both the post and bar in the space of two minutes. Germany were not ready to give in and it turned into a sort of boxing match with both teams looking for the KO punch. In the end it was Italy's day and the match ended with the Italian Prime Minister Romano Prodi congratulating the players in the changing rooms.





**QUARTER-FINAL - 30TH JUNE 2006
ITALY-UKRAINE 3-0**

Italy beat the Ukraine 3-0 in Hamburg on Friday 30th June and qualified for the semi-final against Germany. The team made history and was ready for an even more historical achievement!
Goals by Gianluca Zambrotta in the 6th minute and Luca Toni (who scored two in the 59th and 69th minutes) settled a match which only became exciting at the start of the second half.
Every player in the Italian side looked in great physical shape, notably Zambrotta, Perrotta, Gattuso and Camoranesi: in other words, virtually the whole midfield! No yellow cards and another clean sheet for Buffon, despite rather too many close shaves before Toni scored the second, heading home Totti's cross. Zambrotta even made a splendid ice-hockey goalkeeper's save, sticking out a leg to keep the ball out: at the end of the game Lippi's winger had scored one, set one up and cleared the ball off the line. The team coach had got the team right again and only Amelia and Peruzzi had not yet played in Germany 2006. There was an Italian flag with "Pessottino, we are with you!" written on it. It was intended to salute the player who, after going through many battles, still had the toughest and most important fight still ahead of him.



**ROUND OF LAST 16 - 26TH JUNE 2006
ITALY - AUSTRALIA 1-0**

After an incredible game, which was seriously affected by Materazzi's sending off, Totti scored a last-minute penalty to send Italy through to the quarter-finals. The Italian team had no room to play entertaining football in what was a real struggle from the start.
On Monday, 26th June, the Fritz-Walter-Stadion in Kaiserslautern was the scene of another memorable match in the history of Italian football.
This game against Australia in the round of the last 16 is certainly comparable to the match Italy played against Nigeria in 1994. But no extra-time was needed this time: the match, which looked like finishing 0-0 with Italy down to 10 men, was decided by a penalty awarded in the fourth minute of added time. A penalty given for a foul on Gross, who had made a decisive run into the box.





ITALIA-CZECH REPUBLIC 2-0 - 22ND JUNE 2006

Italy are through! Thanks to a goal by Marco Materazzi midway through the first half and another by Filippo Inzaghi right at the end, Italy beat the Czech Republic and qualified for the round of the last sixteen as group winners. Playing the second half with an extra man after the Czech Polak was sent off at the end of the first half, Inzaghi scored a second at the end of a match which Italy controlled quite comfortably. Group E concluded with Italy at the top with 7 points, Ghana (who beat the USA 2-1) second with 6 points, followed by the Czech Republic with 3 points and the USA with just one point, both teams failing to qualify for the next round.



ITALY-USA 1-1 - 17TH JUNE 2006

Italy and the USA battled out an extremely hard-fought match at the Fritz-Walter-Stadion in Kaiserslautern on 17th June 2006. It ended 1-1 with the two teams down to 10 and 9 men respectively. Italy took the lead through Gilardino in the 22nd minute with Zaccardo scoring an own goal in the 27th. The first half was eventful to say the least: fouls, bookings, sending off and even dirty play. A seesaw of emotions mixed with what was until then the most competitive game in the Germany 2006 FIFA World Cup. The end result was an incredibly intense and emotional event that certainly toughened up our players.



ITALY-GHANA 2-0 - 12TH JUNE 2006

Italy's World Cup campaign got off to a flying start with a 2-0 win over Ghana in Hanover on Monday 12th June after a tough match. The deadlock was broken by Pirlo in the first half, with Iaquineta adding a second ten minutes from the end. Lippi's Azzurri showed they were in good shape, which was the most important thing against opponents who were extremely strong. Being able to compete on a physical level meant that Italy's strengths compared to Ghana slowly emerged: experience, concentration and superior skills.



THE WORLD OF MAPEI

Group figures

1.4

BILLION EUROS
Projected turnover



2 0 0 6

46

PLANTS
WORLDWIDE

more than

800

PRODUCTS

Adhesives • Sealants

Chemical products for building

4500

EMPLOYEES

of which 540

in our 7 R&D centres

more than

15000

TONS

OF PRODUCTS

A DAY

more than

40000

CUSTOMERS WORLDWIDE

ADHESIVES • SEALANTS • CHEMICAL PRODUCTS FOR BUILDING
www.mapei.com



MAPEI STRATEGIES FOR EMERGENT COUNTRIES



Lately Mapei has started work on building two new factories, one in Vietnam and the other in Russia, generally considered “complicated” nations by most European businessmen. In order to fully understand the reasons motivating this decision, we interviewed Luciano Longhetti and Veronica Squinzi, Strategic Planning Director and Strategic Planning Manager of Mapei Group respectively.

What factors determine Mapei's success even in such delicate areas?

L. Longhetti: these are indeed “challenging” countries, because firms keen to invest there encounter all kinds of difficulties: in business, finance, environment, etc... Plus there is the added difficulty that the western way of doing business is not yet properly established in cultures so different from our own. Nevertheless, these countries are particularly interesting because they have much higher growth rates than old industrialised nations, so their markets are potentially much more encouraging for foreign investors.

Mapei is confident in breaking through in these areas, because it believes that the proprietary technologies it has developed during the years have a good chance of being successful in these countries and its advanced and skilled marketing and market surveying operations can indeed exploit the specific potential of these geographical areas. For instance, in the case of Russia we have decided to invest in the Moscow region, more specifically in the city of Stupino, because it has a highly specialised labour force, due to the city's great industrial tradition dating back to the days of the Soviet Union.

V. Squinzi: in the case of Vietnam, on the other hand, we decided to invest in this country in light of the encouraging results of market analyses carried out by the subsidiary we opened in Hanoi over two years ago. Our research shows that this country is heading for notable market growth in both the medium and long term and that it is already well-disposed to innovation and technology: this means it is likely to become fertile ground for our products. Mapei plans to operate in the usual way: we assess market needs, continue to focus careful attention on them, and work with a management team chosen from the local community to gradually implement the Mapei business philosophy based on innovation and high technology. In this case, we noticed the exponential growth in the Vietnamese economy and the country's interest in introducing products at the technological cutting-edge. We then worked with our local subsidiary to start educating the market about our products.

As regards the choice of location for opening our new factory, we made our assessment based mainly on logistical factors: the industrial area of Chu Lai in the Danang area turned out to be the most competitive, since it is situated right in the middle of Vietnam. Its strategic position will make it easier to deliver

products to both the north and south of the country, whose territory winds along the coast in a long and narrow strip.

What are Mapei's plans for Vietnam and Russia in the near future?

L. Longhetti: as far as Russia is concerned, in the medium term we plan to open another manufacturing plant in St. Petersburg in the north and another in the Ekaterinenburg area in the south east. This means Mapei will have three factories operating by the year 2010, allowing it to cover much of the central-western area and make the most of the opportunities for growth on the Russian market.

V. Squinzi: we plan to increase our shares of the market and make our products highly competitive in Vietnam. We will then assess the possibility of extending our ranges of products to cater for the local market.

We are also interested in expanding right across Asia, in order to increase our turnover in countries whose economies are booming and which are extremely interested in importing high technology and innovative products. For example, we are growing in Malaysia, Singapore, Vietnam and China, where Mapei is helping build new projects and has recently completed a number of new acquisitions.

The following pages provide an outline of Mapei's presence in the Russian and Vietnamese market and describe the ceremonies celebrating the start of the building works of the new Mapei's manufacturing plants in Russia and Vietnam.

ON THIS STONE... WE CAN BUILD!

WORK HAS BEGUN ON BUILDING A NEW MAPEI FACTORY IN STUPINO NEAR MOSCOW IN RUSSIA: AN IMPORTANT STEP FORWARD ON A BOOMING MARKET.

From the Moscova River to Stupino, from joint-production to independent manufacturing: this is how Mapei has developed in Russia. The company, which has been operating on the Russian market since 1997 and involved in a joint-venture with the Sopro Group since 2002, manufactures on a regular basis in a small factory in Juzhny Port in the Moscow area, but it will soon be able to count on a new production plant in Stupino, so that it can meet the demands of the rapidly growing Russian market. Building work officially began on 27th October 2005. Despite the cold, wind and at times even the rain, the ceremony to lay the first stone of the new Mapei factory went ahead with no hitches on that date. In the end, the weather was not too bad on such an important day, bearing in mind that it had been snowing until very recently and the forecast was not exactly encouraging: all said and done, we got away with "just" a bit of wind and rain.

The ceremony began in the early afternoon in the industrial district of Stupino, a city with 65,000 inhabitants about 80 km away from the Russian capital. This has always been a highly industrial area, considering that even before the 2nd World War the government of what was then the Soviet Union decided to focus the manufacturing of plane and helicopter engines here.

This meant that a large slice of the local population received cutting-edge training aimed at creating a highly specialised labour force. Even today the inhabitants of Stupino are much better educated than people in lots of other parts of Russia, thanks to the city's 14 institutes and technical schools. This has also helped make Stupino the focus of plenty of foreign investments over recent years. Mapei has



From right on: Giorgio Squinzi, Igor Nickolaevsky, Pavel Ivanovich Chelpan and Luciano Longhetti making their official speeches. In the background: building work on the manufacturing plant in late October 2005.



WORKS IN PROGRESS



October 2005



February 2006

also clearly borne in mind the positive trends in the building industry in the area around Moscow and the general boom in the Russian tiles market over recent years. Lastly, the Stupino authorities have expressed their willingness to back and assist foreign investments as far as possible and also encourage the opening of new factories in the area. All this has helped persuade Mapei that it would be profitable to open a new manufacturing plant in such a favourable location.

At 2.00 p.m. the official guests arrived at the work site for the opening ceremony and were greeted by smiling girls handing out umbrellas, while the Stupino Region's Airforce Band played a repertoire of Italian and Russian music. The event was attended by some very important people, such as the Russian Ambassador to Russia, Gianfranco Facco Bonetti, members of the Stupino City Council, various authorities from the Moscow area Department of the Ministry of Foreign Affairs and Investments, representatives of local technical schools, the President of the Russian Association of Manufacturers of Dry Chemical Compounds for Building, leading figures from local industry, important businessmen in the local building industry (including the people in charge of building work on the Mapei factory in Stupino), and reporters and journalists from the local spe-

cialist press. The guests were welcomed by a presenter, who invited them to take a look at some samples of Mapei products on display for demonstrative purposes in one of the various gazebos specially set up for the occasion and decorated with banners and ribbons, all in the company's official blue and white colours. The people in attendance then took cover indoors and listened to the official speeches introduced by the presenter.

Speeches were then made by Giorgio Squinzi, CEO of Mapei Group, who briefly outlined the corporate philosophy underpinning the company's internationalisation and his expectations for the new Russian plant; Luciano Longhetti, Strategic Planning Director of Mapei Group and General Manager of ZAO Mapei, who explained why Stupino had been chosen as the location for the new plant in Russia; Igor Nickolaevsky, the Moscow Regional Council's Prime Minister for Foreign Economic Relations, who outlined the current state of foreign investments in Stupino; Mr. Chelpan, Head of Stupino Local Council, and Mr. Alekseev, Vice-President of the Moscow Regional Council, who warmly welcomed Mapei to the area; and, lastly, Facco Bonetti, the Italian Ambassador to Russia, who underlined the symbolic significance of all Italian investments in Russia as a means of strengthening the bonds between the two countries.



March 2006



Rendering of the project - How it will be at the end of 2006



After the official speeches, the presenter invited all those present to come up to the platform, where the first stone (with a bronze plaque to commemorate the event) was set in place and covered with a blue and white sheet with the Mapei logo on it. The band accompanied the procession of guests until the presenter officially asked Mr. Squinzi, Mr. Facco Bonetti, Mr. Chelpan and Mr. Nickolaevsky to unveil the stone, while two bunches of blue and white balloons were released into the air. After the presenter read out the commemorative inscription on the plaque and the band played the Russian and Italian national anthems, the important guests and Mapei "team" were invited to line up and be photographed behind the stone. A ceremony to consecrate the stone was then

performed by Father Oleg, the *blagochinniy* of the Orthodox Church in the Stupino area, and another priest, both dressed in their traditional black hats and tunics decorated with white ornaments. The two sprinkled holy water over the stone and recited prayers before it. The consecration ceremony was followed by a press conference during which Squinzi and members of the Mapei management team outlined the company's projects and expectations in Russia to a group of journalists. Finally, the presenter invited those in attendance to enjoy a buffet inside the two big gazebos, where everybody could exchange views and toast to the success of the new Mapei factory in Stupino, surrounded by blue and white ribbons and balloons.

Top, from left on: the stone being unveiled by Squinzi, Facco Bonetti, Chelpan and Nickolaevsky and then consecrated by the orthodox priest Father Oleg. Bottom: the Mapei "team" posing behind the stone.

RUSSIA

MAPEI AND THE RUSSIAN MARKET

The start of building works on the new Mapei factory in Stupino, which we described in the previous article, is an important step in the process of breaking into the Russian market. This process began in 1997 when Mapei OOO was set up, a limited company whose Moscow office was designed to market Mapei products locally. Following the acquisition of the Sopro Group in 2002, the company became a 50% partner in a joint-venture, the Stern-Dycheroff OOO, previously set up by Sopro itself, which

Russia over the last 5-6 years, when, after a long slump in the 1990s, tile sales began to climb: the average increase in sales for the three-year period from 2000 to 2002 was actually 17%, reaching a total of 90 million m² in 2003, equal to three times the figure for 1999 (figures provided by Assopiastrelle – Association of Italian Ceramic Tiles and Refractory Materials Manufacturers – dating December 2004). All this means high sales are forecast in the medium term for the Russian market of adhesives for ceramics and stone materials. Over forthcoming years there is expected to be a notable increase in operations in the building sector: total investments in the Russian building industry were already 50 billion by 2004 (+25% compared to 2003) and the trend is still very positive. An average growth in building investments of 8% is predicated for the 2003-2005 period.

This is partly explained by a general increase in wealth in Russia stimulating the creation of a modern system of infrastructures and the improvement of the home (an asset which the Russian people have always held particularly dear) using quality products. It is also worth bearing in mind that over 60% of Russian houses from the Soviet era need repair work, mainly due to very poor insulation causing so much heat loss. This means a nationwide restructuring scheme is about to be set under way, most likely involving a massive amount of work.

Mapei intends to make the most of the great potential of a booming nation like Russia, whose GNP is around 5%, which means it is growing much faster than the United States and European Union. Indeed, the local building industry has looked favourably on the opening of a Mapei production plant in the Stupino area, well aware of the quality of the Group's products, quite incomparable to those manufactured by local firms.

The company's medium-term expansion plans in Russia also involve opening another factory in St. Petersburg in the north, and another in the Ekaterinenburg area in the south-east. By 2010 Mapei will be able to count on three manufacturing plants comfortably capable of covering the central-western part of the country.



Juzhny Port (Moscow)

owned a small factory in Juzhny Port along the River Moscova in the Moscow area. In 2004, Mapei took control of the remaining 50% of the joint-venture and established ZAO Mapei, a company initially designed to manufacture and market various Mapei products. Unfortunately, the facilities then owned by the Russian subsidiary could not supply the entire Moscow region. Hence the decision to open a new manufacturing plant in this area.

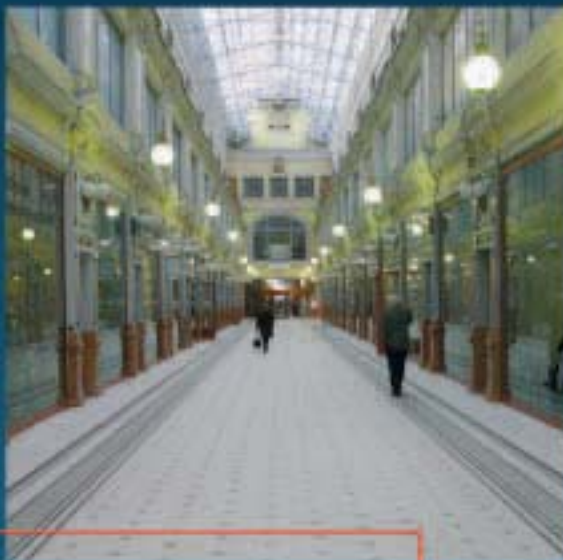
Mapei's plans to develop business in Russia are backed up by the encouraging results of surveys into the local market for mortars and adhesives for tiles, which point towards consistent growth for the entire 2002-2010 period.

This trend is connected with the real boom in tiles sales in



Porsche Showroom - Rostov on Don

When building this luxurious showroom in the south of Russia, ADESILEX P9 was used to bond the glazed tiles on the external and internal floors, while grouting was accomplished with ULTRACOLOR PLUS.



Passage Arcade - St. Petersburg

In the latest few years the historical city of St. Petersburg updated its appearance with the help of Italian experts. Among the most important works one finds the renovation of the arcade of the Passage department stores, a project carried out by using Mapei products. The screeds were formed with TOPCEM, ceramic tiles were laid with GRANIRAPID and joints were grouted with ULTRACOLOR.



Mosbuild 2006

AT CONGRESSES AND FAIRS... THEY KNOW WE ARE THERE!

Opening new production units is just one way Mapei intends to strengthen its presence in Russia. As well as being able to produce locally and reach its Russian clients easily, its business strategy involves plenty of marketing activities promoting Mapei products on the Russian market. This primarily means taking part in local fairs in the sector, a well-established business practice in all those countries where the Group has a subsidiary. As far as Russia is concerned, over the last few years ZAO Mapei has regularly taken part in national exhibitions, during which it has been able to establish and strengthen relations with leading representatives in the sector from all over the country. For example, it has been a regular exhibitor at Mosbuild national building fair in Moscow, constantly extending its presence: in 2004 it had a 54 m² exhibition surface over one level; in 2005 it had a 92 m² display space with a stand split over two levels, while the company's "open-space" booth at Mosbuild 2006 covered a good 105 m². But ZAO Mapei also takes part in specialist fairs, allowing it to make good contacts with people who almost all work in the sector. For instance,



Booth project for Mosbuild 2006



from 25th to 27th January 2006, it attended the third edition of the international Underground City exhibition organised in Moscow by the Russian Association of Underground Building. The event, a showcase for the most innovative machines, technology and solutions for underground construction, attracted over 150 Russian and foreign exhibitors (coming from over 10 different countries), making a total over 1000 visitors over the four days.

This fair, which has now been held on three occasions, is now firmly on the company's agenda, given that Mapei products include a special range for underground constructions and the company employs experts in this sector like



Underground City 2006

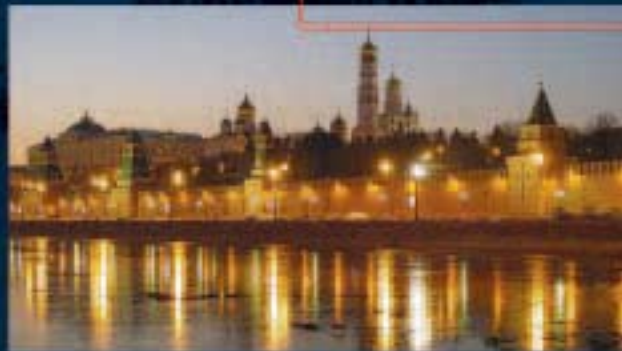
Enrico dal Negro, the Product Manager for the range in question. The Russian subsidiary's own booth at Underground City displayed high-tech solutions, such as expansion agents for consolidating the soil like EXPANJET, alkali-free accelerators for shotcrete like MAPEQUICK AF, repair mortars from the MAPEGROUT range, and a new range of products for mechanized tunneling, including foaming agents like FOAMER and POLYFOAMER and sealants for full-section excavation work like TBM, MAPEBLOX/H and MAPEBLOX/T.

Following the example of the mother company, ZAO Mapei's own communication strategy involves taking part in international scientific and technical conferences. For example, from 5th to 9th September 2005 it attended Rilem's (International Union of Laboratories and Experts in Construction Materials, Systems and Structures) international conference on concrete and reinforced concrete. On this occasion, the topics examined were, for instance, the quality control of concrete works on building sites, new regulations for reinforced concrete structures, energy saving in precast concrete plants, international co-operation in the realms of concrete and reinforced concrete, etc. The conference



Kremlin Palace - Moscow

During the restoration works of the luxurious St. Andrew and St. Alexander halls inside the Kremlin Palace, the parquet floor was rebuilt and installed with LIGNOBOND on surfaces treated with NIVORAPID and PRIMER EP.



Lipzek University Swimming Pool - Lipzek

The following Mapei systems were used for the building of this swimming pool: waterproofing treatment accomplished with LAMPOSILEX and MAPELASTIC, laying of ceramic tiles with KERACRETE and PLANICRETE, sealing of expansion joints and grouting of tile joints by using ULTRACOLOR and MAPEFIL AC.



Lagar-Aul Tunnel - Khabarovsk

The building of this tunnel, located in the most Western areas of Russia, is part of a wider project intended to double the Trans Siberian railway line. The accelerating admixture MAPEQUICK AF 1000 was used to carry out the works.





Rostov-on-Don



was attended by world experts in this field, including two from Mapei S.p.A.: Luigi De Martin and Francesco Surico. The latter gave a paper on the preparation of a special formula for self-compacting concrete specially created for a bridge designed by the architect Santiago Calatrava for the city of Venice.

TECHNICAL ASSISTANCE AND TRAINING: MAPEI'S STRENGTHS

An integral part of the corporate marketing strategy for Mapei products in Russia involves providing valid technical support, something which has always made the Group stand out from its competitors. Two main types of services are provided: on one hand, Mapei offers its clients impeccable technical assistance using both Russian and Italian technicians; on the other hand, it organises technical seminars to train local workers, providing detailed explanations and often practical demonstrations of the advantages offered by Mapei products.

To achieve this first target, the Mapei Technical Consultations Services (photo at top of page) was recently opened in Rostov-on-Don in Southern Russia, which assists both private parties and business companies in choosing the ideal building materials for their own requirements. Consultations with experts from the Centre take place on the phone and during visits to building sites, providing detailed information about the features and proper use of Mapei products.

As regards technical training provided by ZAO Mapei in Russia, this includes various kinds of seminars intended to outline the Group's history and operations and their ranges of products to locals by means of talks by Mapei staff, film clips, handing out catalogues, press releases and gadgets, displays of product samples and posters illustrating both building projects and practical tests on how to apply products. Over the last year in Russia Mapei has organised three seminars in St. Petersburg (one devoted to the Mapei image in general, one to the DYNAMON SYSTEM held at the Barricada concrete factory, and one specially devoted to enhancing agents), one at the company plant in Juzhny Port, Moscow, and one in Kaliningrad, on the western borders of

the country. On 16th -17th January 2006, Mapei Technical Consultations Service also hosted a seminar for Russian building companies and distributors (photo at bottom of page). The event was co-organised by OOO Alliance Trade, a firm belonging to the Kera Group, which encompasses lots of builders and distributors in the Russian building industry. The seminar included, first and foremost, a general presentation of the company and ranges of Mapei products, followed by a practical demonstration of how to use products like TIXOBOND WHITE, KERABOND, ADESILEX P10 and MAPEGROUT THIXOTROPIC. Those in attendance, also including representatives from Evropool and Kontek (two important local swimming pool building firms).

Lastly, each year ZAO Mapei selects customers, distributors, installers, building contractors and engineers to take part in international seminars held at the Group's mother company in Italy, which usually include practical demonstrations and trips to laboratories. In October 2004, for instance, a seminar for Russian and Ukrainian distributors was held in Milan at the headquarters of Mapei S.p.A. They were shown a number of products and how they are applied, at the same time encouraging teamwork spirit between those in attendance and the company as part of the building sector in both these nations. RM



NHẬT LIỆT CHÀO MỪNG QUÝ VIÊN ĐIỀU HÀNH
 LỄ KHỞI CÔNG XÂY DỰNG NHÀ MÁY HÓA CHẤT VẬT LIỆU XÂY DỰNG MAPEI VIỆT NAM
 Welcome To The Ground - Breaking Ceremony of Mapei Vietnam Factory
 General North - 30/08/2005

VIETNAM

AN IMPORTANT STEP IN MAPEI'S PLANS FOR ASIA

WORK HAS BEGUN ON BUILDING THE GROUP'S FIRST FACTORY IN VIETNAM.

On 30th August 2005, a well-attended event was held in Danang, Vietnam: a ground-breaking ceremony marking the start of building work on a new Mapei production plant. The work will lead to the opening of the Vietnamese subsidiary's first factory and the Group's fifth in Asia. Once completed, this facility will play a vital role in helping the company break into the Asian market, a goal it already had in mind when setting up Mapei Far East Pte Ltd based in Singapore in 1989. It is also linked with the existing manufacturing plants in Singapore and Malaysia and the opening of branches in Hochiminh, Danang, Hanoi and Hong Kong, as well as the recent acquisition of two manufacturing plants in China. Vietnam, with its booming economy (whose average annual growth rate is 7% and hence at the very top of the list of world economies since 2000, second only to China's), first attracted Mapei's interest a few years ago. Indeed, the notable investments in building structures like dams, bridges, motorways, tunnels, power stations and all kinds of buildings (private houses, offices, hotels and holiday resorts) make Vietnam an ideal place for selling the Group's

products. For this very reason, the company opened a representative office in Hanoi at the end of 2003 and started carrying out detailed studies into the market feasibility of Vietnam. Over the last few months of 2004 Mapei finally decided to open a production plant in the Open Economic Area of Chu Lai in the province of Quang Nam, about 80 km from Danang, the biggest city in Central Vietnam, famous for its harbour. This Area is strategically located: it is relatively close to the sea, airport, highway and railway line. Local authorities can also offer investors extremely favourable terms, such as free land rental up to 2015, corporate tax con-



Rendering of the project - How it will be at the end of 2006



Top of page, from left: Giorgio Squinzi with Hoang Xuan Thang, Former Chairman of Quang Nam-Danang; the official speeches given by Squinzi, Nguyen Xuan Phuc and Pham Thi Thai Mai.



cession and 5-year-long exemption from import duties on raw materials used in production processes. All these, combined with the availability of raw materials and the professional but at the same time friendly attitude of the people in charge of the Chu Lai Open Economic Area was crucial in determining Mapei's final decision to open a new factory in this area.

The ground-breaking ceremony was prepared and planned with great care: invitations were sent out in advance to numerous leading figures in the building industry, officials from the Ministries of Construction, Trade, Services and Technology, representatives of universities and leading education centres, members of the Vietnam communist party and provincial government, etc.

Coloured welcome arches (see the opening photo) were erected at the entrance to the Chu Lai Economic Area, and the entire zone between the entrance and land allocated to Mapei was furnished with stages, seats, posts, plants,

flowers, flags and coloured balloons.

A presentation kit was given to everybody taking part, including gadgets, a leather bag with the Mapei logo on it, a badge with a rose on it, and flyers in Vietnamese.

Propitiatory rituals were performed at midnight on 29th August 2005 before the ground-breaking ceremony proper, in accordance with Vietnamese tradition. The idea was to obtain the blessing and protection of all the spirits and demons. To this end four altars were set up, one for each cardinal direction, as well as a large central altar devoted to the God of Earth, whose "permission" was asked to use the section of land allocated to Mapei. The divinities were offered fruit, rice cakes, wine and tea; incense sticks and paper banknotes were burnt in front of the altars, while two geomancers recited prayers to ensure men and spirits were communicating properly.

The day after, on 30th August 2005, the ground-breaking ceremony officially began at nine






o'clock in the morning, when the guests arrived at the Chu Lai Open Economic Area, and there was also a lion dance to the sound of drums and cymbals. Three female singers and a male singer sang songs in praise of the province of Quang Nam.

Giorgio Squinzi, CEO of the Mapei Group, officially welcomed those in attendance and briefly outlined the history of the company and its products, before going on to describe Mapei's operations in Asia and projects involving the Vietnamese subsidiary. Squinzi also thanked the provincial government of Quang Nam and officials in charge of the Chu Lai Open Economic Area for the help they had provided in building the new factory.

After Squinzi's speech was translated into Vietnamese, it was then the turn of the Chairman of Quang Nam Province, Nguyen Xuan Phuc, followed by a short message of thanks from Pham Thi Thai Mai, Deputy General Director of Mapei Vietnam.

After the official speeches were over, the audience watched the crowning moment of the ceremony: a ritual performed by 15 people, including Giorgio Squinzi, Veronica Squinzi, Strategic Planning Manager of Mapei Group, and various members of Mapei Far East and Mapei Vietnam (Chua Kok Leung, Managing Director of Mapei Far East, Quee Eng Liew, Regional Marketing Manager of Mapei Far East, and the aforementioned Pham Thi Thai Mai), each of whom, spade in hand, shovelled away some white stones piled up in front of them, thereby symbolically setting building work under way on the new facility (photos centre page on the left).

The ceremony was conducted by a TV presenter from Danang, Dang Thuy Hang. The guests attending the ceremony were then invited to take part in the official banquet.

Over the weeks that followed, various newspapers and local television channels reported on the event and lots of messages of congratulations were sent to Mapei Vietnam's headquarters: all testifying to the ceremony's success as regards the people taking part and the organisation of the event itself. 



Vincom City Twin Towers - Hanoi

This huge complex includes many offices and 5 floors of shopping mall, which houses the outlets of international brands of fashion and cosmetics and features porcelain tile floorings laid with ADESILEX P9 and grouted with KERACOLOR SF.



Stock Exchange Building - Hanoi

This is an old building built around 1900. In their recent renovation, all toilet floors were waterproofed with MAPELASTIC. The dome of the building was also treated with MAPELASTIC before being painted over.



Songda Trade Centre - Hanoi

This complex consists of 6 blocks of 100 luxurious apartments each and a supermarket. 20 tons of MAPEFILL GP have been used to fill up rigid joints between precast concrete elements.

COLOUR PROTECTION WELL-BEING

RIGHT ACROSS THE FIELD

The exceptionally well-attended 25th edition of SaieDue Living, International Exhibitions on Architecture, Interior Finishing, Building Renewal and Technologies drew to a close on Saturday 18th March at the BolognaFiere (Bologna Fairground).

The figures for this important event are certainly encouraging: 132,788 professional visitors over the course of the five-day show, including 10,627 from abroad and an increase of +2.09% in the number of visitors compared to 2005.

1,410 firms, 155,000 m² of exhibition room and over 40 conventions on key issues in modern-day living: the combination of all these factors made SaieDue Living 2006 the most important event in Europe in the field of architecture, providing building operators with accurate information about the latest products and trends in coatings, renovation and repair.

The initial reactions of firms, visitors and journalists were also very positive and the President of BolognaFiere and Confindustria (the Confederation of Italian Industry), Luca Cordero di Montezemolo, who attended the opening ceremony on 14th March, thanked the 1,410 firms attending SaieDue Living for all their efforts down the years to support the Italian economy and for their constant investments in research and innovation.

But that real something extra about this show was the great attention to design and experimentation into design, evident both in the products on display and in the elegance of the stands the companies produced. The exhibition method was also a big success, as conventional products for architecture (fittings, doors, windows, stairs, floors, automated systems, paints, restoration products, bio-building technology and accessories for safety & security) combined with items belonging to more specialist areas.

Colour was the main theme this year. Something that Mapei has paid plenty of attention to for some time now. The company

really took this chance to present its full range of new products in this field, starting at the **Decor and Color Show**, whose busy pavilions (19 and 20) displayed a wide selection of paints, glazes, plastic coatings, tintometric systems, colour grouts, paint removers, brushes, fixing compounds, electric spray guns and lots of other solutions to brighten up public and private living spaces.

Mapei also took part in **Floor Expo**, the place where floors have found a wealth of applications in public and private building. Both traditional wooden projects and more innovative designs made of PVC, metals and ceramics caught the eye due to their pleasant aesthetics, toughness and the high standards that modern technology has given them. The floors premiered at SaieDue Living 2006 raise the standards of living: designed to make surfaces quieter and allow energy-savings, they are extremely sound-deadening and heat-insulating.

The marble and stone surfaces on display in the **Living Stones** theme space, in pavilions 33, 34 and 35, brought to light the results of careful studies and research into design. Mapei, which had a huge stand in pavilion 34, displayed its full range of innovative systems for all kinds of building applications. Alongside an extensive collection of tiles and coverings, the show's exhibition space also displayed some very thin slabs, the product of the latest cutting-edge techniques and novel combinations of natural stones and other materials.

SIDE EVENTS

The architecture at SaieDue Living 2006 looked to the future, betting on renewable energy, innovative materials and cutting-edge technology. The schedule featured over 40 events, such as conventions on the European directives on motorised locks, fixtures and sound-performance ratings, neuroscience and colour design, constructions using light-weight materials, biomass-powered energy systems, etc.

Besides, **100% Colors - Color in Architecture**, an emotional high-tech exhibition, also attracted the public's and media's attention to colour. It was organised by SaieDue in partnership with Mapei in pavilion 35. This was a particularly eye-catching event, which showed all designers and businesses just how colour can change our perception of living spaces and influence the way we behave (see the article on page 24).

THREE STANDS AND AN EXHIBITION

If we had to use a football expression to describe how Mapei approached the SaieDue Living exhibition this year, then we would say that Mapei was "pressing right across the field".

Three different stands in three different pavilions, and a sponsorship deal for a spectacular exhibition gave Mapei the chance to present all the best solutions for lots of building issues.

The leitmotif for this important project might be summed up by the



slogans “**Color Coordinates**” and “**Protection and Comfort**”.

The above-mentioned exhibitions “100% Colors” and “Decor & Color Show” provided the company with the chance to present its wide range of colour schemes, allowing designers and users to co-ordinate the colour of walls with that of tiles and grouts or even decorative resin and cementitious floors. **Paint Look** also provided a helping hand in choosing colours. This new customised multimedia programme by Mapei can help designers select the aesthetically ideal coloured products for any setting. By entering a digital photograph of a room, a façade, etc., into a computer, clients can see which coloured Mapei solutions are best suited aesthetically for their specific tastes.

In addition to this, thermal insulation systems such as MAPETHERM, waterproofing products and lots of other high-tech solutions – like, for instance, products featuring the *BioBlock* and *DropEffect* technologies, which prevent the formation of mould and reduce the absorption of surface water, respectively – allowed visitors to see how to achieve maximum comfort and well-being for the home environment.

At SaieDue **Pavilion 34** accommodated Mapei’s best solutions for the various stages in building, such as repairing concrete, restoring walls damaged by rising damp, and applying wall coatings. Various products and systems of products were on display, including: MAPE-ANTIQUE (dehumidifying mortar enriched with Ecopozzolana), PLANITOP HDM and PLANITOP 500 (mortars for smoothing and strengthening),

SILANCOLOR PLUS SYSTEM and the ANTIPLUVIOL LINE (for wall coatings).

For waterproofing, the old and unbeatable favourites MAPELASTIC, MAPELASTIC SMART and MAPEGUM WPS were also on display.

The general public showed a lot of interest in decorative, functional, cementitious and resin floors made with MAPEFLOOR SYSTEM and ULTRATOP SYSTEM. Some of these floors were obtained with the addition of the Crystal Colorquartz, a special product marketed by VA.GA., one of Mapei Group’s subsidiaries.

One of the most innovative solutions presented in this section was ULTRABOND TURF, the Mapei system for laying artificial turf, a material which is becoming increasingly popular for playing fields, school recreation areas and urban spaces serving leisure purposes.

The following products were also displayed: ADESILEX G19 (for resilient coverings), ELASTORAPID (for marble), KERAFLEX (for ceramics) and ULTRACOLOR PLUS (for grouting). In **Pavilion 35** the Mapei’s stand displayed





products for installing parquet floors, such as old-favourites like ULTRABOND P990 1K and ULTRABOND P902 2K and the full range of primers, including the new ECOPRIM PU 1K.

Pavilion 20, devoted to the Decor & Color Show, also exhibited Mapei products for creating coloured protective wall coatings for all kinds of surfaces, for both interiors and exteriors.

It was also possible to test the effectiveness of the above-mentioned new customised multimedia programme **Paint Look**, which helps designers choose the ideal coloured products for all kinds of settings.

Considerable interest was shown for COLORITE BETON, COLORITE PERFORMANCE, QUARZOLITE, SILEXCOLOR MARMORINO, SILANCOLOR TONACHINO and the two new products using the latest *BioBlock* and *DropEffect* technologies: SILANCOLOR PAINT





PLUS and ANTIPLUVIOL W, for protecting coverings made of facing bricks, natural and artificial stones, renders and concrete.

MAPEI AND FOOTBALL, EVEN AT SAIEDUE

As we all know, Mapei is an Official Sponsor of the Italian National Football Team. SaieDue provided the chance to outline the football-related promotions aimed at Mapei Italian retailers and their clients. For instance, buying those Mapei products which enclosed a special card means you entered a prize contest which could let you fly out to Germany and watch the Italian team play. The fair provided the chance to interact playfully with all the visitors flocking to the Mapei exhibition spaces. Stations equipped with Microsoft consoles in all three Mapei stands let everybody play the FIFA 2006 game and win special theme gadgets.

Mapei certainly made its presence felt at SaieDue 2006, as the company hit all its communication and promotional targets. A positive experience, which, in light of all the numerous contacts made at the trade fair, confirmed the firm's increasingly important role on the Italian and international markets.

The next edition of SaieDue Living will again be held at the Bologna Trade Fair from 13th-17th March 2007.



100% COLOURS IN ARCHITECTURE colors

EXHIBITION ON THE TOPIC OF COLOUR IN ARCHITECTURAL MATERIALS, PRODUCTS AND DESIGN PROCEDURES

All the Colours of the Rainbow

It was no easy matter tackling an issue like colour, devising a coherent way of creating emotions and triggering off unusual mental links.

100% Colors - Color in Architecture - the exhibition that explored the topic of colour in architectural materials, products and design procedures, organised in collaboration with Mapei at SaieDue Living trade fair, effectively achieved these goals. A firm conceptual-organisational approach combined in one single exhibition place scientific experiments and theories with the technical solutions and innovative materials presented by the various companies in attendance.

The danger at events like this is that the scientific themes and products presented are soon forgotten, if they are perceived in a disorderly way. The impression striking visitors is of having witnessed and taken part in a purely spectacular event, without having really learnt anything new. Provide full information, surprise with style and make people think: these are instead the ingredients which guarantee the success of a cultural event and they are certainly what decreed the success of this show.

The exhibition was developed along the leitmotif which the organisers themselves had set for the event to really pay-off: "No longer the theory of colour, but the science of colour - No

longer the choice of colour but colour design".

An Event Full of Happenings

100% Colors - which was hosted in pavilion 35 just like the other big special events at the previous editions of SaieDue, all backed by Mapei - 100% Calpestable (in 2004) and Verticalia (in 2005) - drew visitors into a strange sensorial experience, a journey to discover how colour can alter our perception of surrounding reality.

The project, organised by SaieDue in conjunction with Mapei and designed by Giulio Bertagna and Aldo Bottoli from B&B ColorDesign (who teach a course on Perception and Colour at Milan Polytechnic), set discussions under way into the role of colour design in modern-day society, involving neuroscientists, physicists, philosophers, psychologists, semiologists, colorimeter experts, historians, designers and journalists.

The striking installation project managed to effectively inform people about the latest neuroscientific discoveries regarding colour.

The installations were also designed by Marina Carrara, Editor of *Casaviva* (an important Italian magazine devoted to home furnishing), and Gilda Bojardi, Editor of *Interni* (an important Italian magazine devoted to interior design), who recreated the latest trendy colour schemes shown in their magazines for visitors to enjoy.

Experts and press visiting the exhibition and attending the 100% Colors workshops experienced the stylistic-psychological force of "coloured" architecture, which can also bring about important effects: speeding up the healing process in health care facilities, making learning easier in teaching facilities and even helping reduce crime in the city suburbs.

It was the products, materials and coatings - through almost 100 installations on display - which showed how both public and private living spaces can be transformed by floors, doors, windows, coverings



Triple tape cutting ceremony: Adriana Spazzoli, Head of Mapei SpA Marketing Department and External Relations, between Marina Carrara, Editor of "Casaviva" and Gilda Bojardi, Editor of "Interni".

Behind them, on the right, Giulio Cesare Alberghini, President of the Business Secretariat of SaieDue and, left, Roberto Snaidero, President of Federlegno (the Italian Federation of the Wood, Cork, Furniture and Furnishing Manufacturers).

and stairways enhanced by new colour schemes.

The project design featured targeted scientific contents directly presented to visitors through perceptual phenomena: the materials, objects and products on display were means of showing all the professionals present how the quality of life in work places, the home environment and cities can be enhanced by the clever use and application of colour.

A Striking Tour

Visitors were initially taken on a guided tour around the exhibition's atmospheric premises. After a short descent into the black of night, they

were then awakened by the disorienting and purifying gleam of white before rediscovering the world of colours: reality in the form of matter, life, cold and heat; the gleaming white was interrupted by sudden glints of colour finally giving meaning to light and creating a pathway leading visitors into the reality of material things: the green of nature, the light blue of water, the dark blue of the ocean depths and air and the pulsating red of life.

Entry into the various spaces of colour was accompanied by plenty of sounds: the white room was dominated by the sound of traffic, alarms, wake-up calls and telephone rings; the green of woodlands resounded with rustles, light breezes and distant sounds of animals. Each transition from one realm of colour to another activated all the senses.

The 100% Colors exhibition went beyond objects and the shape of materials, touching on the various ways of perceiving reality and rearranging objects according to the emotions.

The exhibition was divided into separate colour areas, with the products and materials on display all belonging to the same frequency: blues for the high frequencies, greens for the middle frequencies, and yellows and reds for the low frequencies, all accompanied by highly evocative and atmospheric background music.

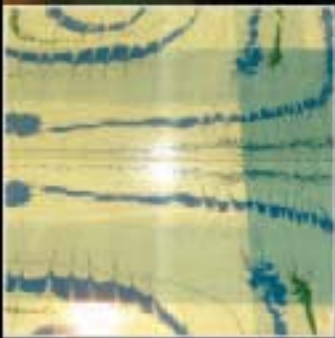
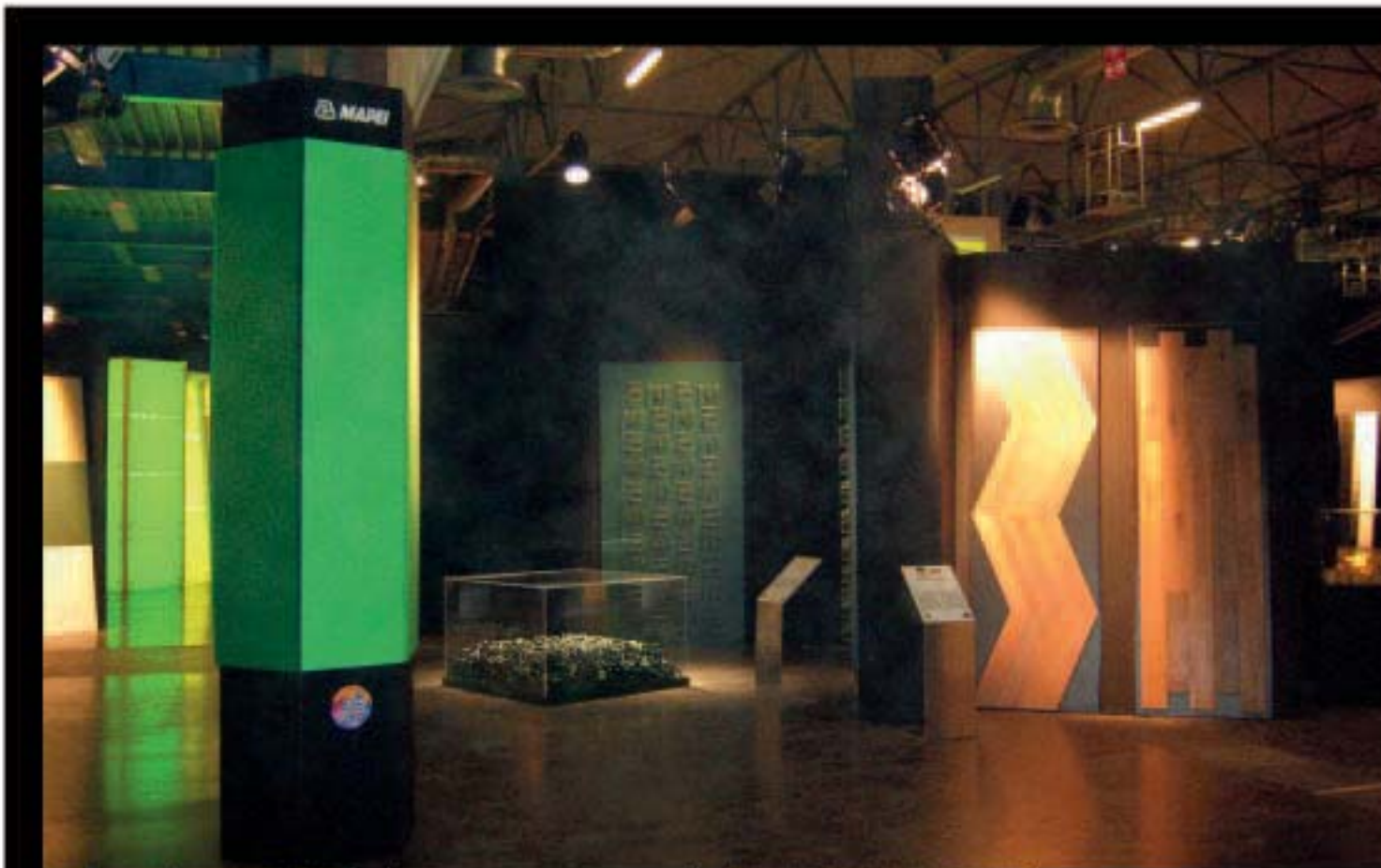
Continuing on into the Color Bar, visitors could sample the colours of taste: blues for sweets, greens and yellows for savouries and orangey for spicy foods. Inside the exhibition it was possible to play with the "Four Colour Corridors Test", where, depending on the perceptions experienced during the tour, an amusing psychological profile emerged, which visitors could read after answering questions set by a PC. There were also plenty of interesting educational moments, including slide shows, methodological pointers, information, scientific oddities and examples of actual designs.

Plenty of room was also devoted to the exhibition of projects designed in the laboratories of the Indaco Department (Dipartimento di Industrial Design, Arti, Comunicazioni e Moda - Department of Industrial Design, Arts, Communication and Fashion) at Milan Polytechnic's Faculty of Design.

Mapei Colours

At this prestigious event Mapei, which for some time now has realised the importance of colour for people working in the building industry, displayed its own virtual colour tour, special installations devoted to colour and "Paint Look", Mapei's simulation software helping customers to choose the right products for creating coloured surfaces.

Mapei's aim at the exhibition was to provide visitors with architectural solutions, which are not bland and uninspiring, and show that the



Below: Luca Cordero di Montezemolo, President of Confindustria (the Confederation of Italian Industry), takes a close look at Mapei's installations.

firm is at the cutting-edge in technological research into colour and well-being. Mapei provided concrete examples working around colour to outline its know-how and expertise in dealing with all kinds of problems encountered in the building industry: from structural reinforcement to coatings. Mapei uses technology geared to aesthetics and safety in order to provide solutions to all kinds of demands but also to ensure the company is contributing to works destined to last. Alongside materials, objects and structures, the exhibition also highlighted Mapei's "communicative surfaces": installations in which visitors could admire the wide range of colours on offer and also actually touch the final result obtained using products and product systems marketed by the company.



COATING SYSTEMS RANGE

A complete, integrated system for substrates which offers a protective and decorative coating.

by Paolo Sala, Product Manager of the Mapei Coating Systems range

Not only do Mapei wall coatings guarantee a protective layer, they also offer excellent aesthetic results, thanks to the use of the ColorMap colouring system. These results are made possible by Mapei's approach in studying solutions, which starts with a diagnostic analysis subsequently transformed into the choice of a system for repairing façades, and ends with an evaluation of the colour and of the protective layer, that is, the coating. Our intention is to enrich the Coating Systems range (which is part of the Mapei offer since 1992) with products with a high technological profile by using all the resources which the company has to offer regarding research and development, diagnostic analysis and experience in the building industry.

We have an ambitious goal: to become the market leader for façades coatings within the next 3-5 years. Mapei considers a façade to be a complete, integrated system with a high technological content and deals with this sector using a completely innovative approach, by offering a system which includes and unites the two main elements which make up a façade: the substrate and the coating, which is regarded as a protective and decorative structure.

The first step in achieving good results is to identify what lies beneath a façade coating. Thanks to the company's ability in diagnostic analysis, Mapei is now able to offer the market products which have the capacity of "uniting" with the underlying products. Only modern, sophisticated instruments, such as those used in Mapei's Research & Development laboratories, are capable of carrying out an in-depth analysis of the various problems encountered and proposing the most suitable solutions.

The market is currently made up of 70% repair interventions, while only 30% involve the construction of new buildings. Diagnostic analysis, therefore, is a fundamental element when choosing the most suitable coating products, which means that Mapei's commitment in this sector allows the company to exploit their R&D laboratories and production capacity to the full, to become a leading operator in what is a truly interesting market.

There are also marketing strategies to be taken into consideration: we plan to complete the range, making the most of the prestige and worldwide fame of the Mapei brand name and the company's potential for accessory products. Not to mention the benefits enjoyed by the commercial structure which can enrich the range of pro-

ducts on offer, with innovative solutions of indisputable quality to satisfy one of the main requirements of the end client: a coloured façade with as few parties involved as possible with easily-identified responsibility.

Nowadays, Mapei is able to offer a very wide range of high-quality products for the best solution to all kinds of problems: from acrylic elastometric systems (ELASTOCOLOR system), to modified potassium silicate-based systems (SILEXCOLOR system), from silicon resin-based systems in water dispersion (SILANCOLOR system) to acrylic systems with added micro-granular quartz (QUARZOLITE system) and pure resin-based acrylic systems (COLORITE system).

While publishing a series of catalogues and leaflets dedicated to the Coating Systems line, Mapei also devised an interactive software to help in choosing the right Mapei product: «Color by Mapei».

RM

COLORMAP: AUTOMATIC COLOUR SYSTEM

This "tintometric" colour system is intended to meet a specific need: placing distributors in an unique position to fulfil the final consumer's demand of coloured wall coatings. ColorMap is a complete system able to formulate and reproduce in real time any colour. The products can be delivered "just in time" in any amount. It is made of a modular electronic dispenser with 16 canisters for automatic dispensing of the colourants, a simultaneous rotational and vibration mixer, a spectrophotometer with integrating sphere and an instrumental colour receiving software. The system guarantees the following advantages: fault-proof formulas for any colour, the ability to precisely reproduce the same colour of previous jobs, the availability of a wide range of colours and of small sized coloured samples. The available colours are 342, classified according the Natural Colour System, the most widely recognized proprietary perceptual colour model, well-known throughout the world. ColorMap eliminates the need of a custom-made colour chart and promotes standardized procedures for choosing colours.



For further information about this product, see the web site www.mapei.com.

WORLD'S FAIRS

Six months of exhibitions

Domotex – Hannover (Germany) – 14 - 17 January
Domotex Hannover claims to be the world's most important trade fair in the carpet and resilient flooring sector. This claim seems to be justified: over 48,500 people working in the sector attended the exhibition this year to find out all about the latest products and current trends: over 10.6% more than at the 2005 event, with about 75% of the exhibitors being foreign. Mapei took part in the event with a stand designed like a huge boat, inside which there was a full display of the firm's wide range of products for installing resilient materials. Beside old familiar products, the company showcased new ones, specially developed for the German market, such as PLANOPUR and ULTRABOND AQUA-CONTACT CORK.



World of Concrete – Las Vegas (USA)

16 - 20 January

As the only annual international tradeshow dedicated to the commercial construction industry in the United States, this fair provided an endless show floor full of the latest technologies being utilized today along with giving attendees the chance to meet directly with the leading suppliers to the concrete and masonry industries. With more than 1,800 exhibitors occupying over 800,000 net m² and registrants in excess of 80,000 (approximately 15% higher than 2005), World of Concrete 2006 was the largest show in its 32-year history. Mapei displayed here a number of new products such as CONCRETE RENEW, MAPECEM QUICKPATCH, MAPEFINISH FUSION, MAPELASTIC, MAPELASTIC SMART, MAPEPRIME 1K, SPRAYTOP RS.



Mapei participates in specialised trade-shows held every month of the year throughout the world.

These are good opportunities to meet and interact with the market and the customers. They provide a chance to introduce new products and new solutions, but also to communicate Mapei's know-how participating in conferences, workshops, seminars and side events organised on the occasion of the trade shows.

In the first half of 2006 Mapei took part in plenty of exhibitions, held in several countries: from Germany to Dubai, from the United States to Spain and Portugal, from England to Russia. Here, for lack of space, we only mention a few of these important events.

Cevisama – Valencia (Spain) – 7 - 11 February

The 24th edition of this international trade show for ceramic tiles, surface coverings, bathroom and kitchen equipment, raw materials, glazes and frits recorded the highest number of buyers in its whole history: 11,920 out of a total of 96,349 visitors (+7% compared to the 2005 edition), who could take a close look at the products displayed by 1,442 exhibitors. Mapei made the most of this special opportunity by promoting, on their 160 m² stand, products

for installing ceramic tiles and stone materials on external walls, balconies, swimming-pools and terraces, products for laying resin and cementitious floorings and water-proofing compounds for

installing ceramics in humid environments. The highlight of the stand promotions was ULTRACOLOR PLUS, a new grout recently introduced to the Spanish market.



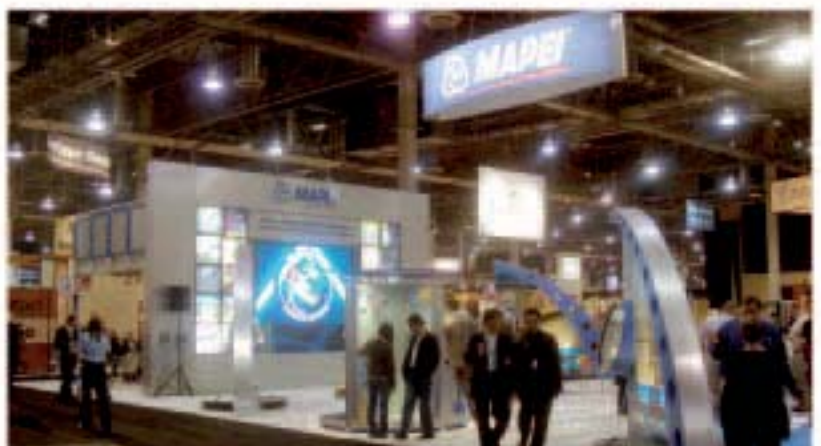
Surfaces – Las Vegas (USA) – 1 - 3 February

A record-breaking 40,588 retailers, manufacturers, distributors, architects, designers, builders and installers from around the world (a +6% increase over 2005) came to see the latest floor covering fashions and newest

industry technologies at Surfaces 2006.

Exhibitors were also out in record numbers (1,070 companies, an increase from the record-setting 1,054 in 2005) and showed their products in 515,000 net m² of exhibition space. These figures prove the real success of this

year's edition of Surfaces, which Mapei also took part in by showcasing water-proofing solutions, several items from the ULTRABOND ECO product line, ULTRA SKIMCOAT, adhesives for wooden floors and the new mortar for glass tile ADESILEX P10.



WORLD'S FAIRS WORLD

Mosbuild – Moscow - Russian Federation – 4 - 7 April
 In the latest years ZAO MAPEI, the Russian subsidiary of the Mapei Group, has been a regular exhibitor at Mosbuild national building fair in Moscow, constantly extending its presence: in 2004 it had a 54 m² over one level; in 2005 it had a 92 m² display space with a stand split over two levels, while the firm's open-space stand at Mosbuild 2006 covered a good 105 m². During the last edition, the company focused its promotion activities on the following products: KERASET, KERABOND, ADESILEX P9, MAPEGROUT THIXOTROPIC, ULTRAPLAN and ULTRATOP.



Tektonica – Lisbon (Portugal) – 23 - 27 May
 The 8th edition of Tektonika, the Portuguese leading fair of Machines and Equipment for the Civil Construction and Public Works, included plenty of shows: SIMAC, the International Exhibition of Materials, Machinery and Equipment for the Construction; SK, the International Exhibition for Wall and Floor

Coverings in Ceramics - Kitchen and Bathroom Space; the Energy Show; and the Innovation Space. The wide range of the sectors on display and the rich programme of side events brought about a total number of 60,000 visitors (4% more than the previous edition). Mapei's stand took up about 180 m² and focused the visitors' attention on the company's interest for coloured

solutions (summed up by the slogans "Colour Coordinates" and "Protection and Comfort"), their commitment in the Major Projects field and their latest promotions related to football. Among the most highlighted products one finds: ULTRABOND TURF EP 2K, ULTRAFLEX S2 MONO and a wide range of protective and decorative coatings.



Interbuild – Birmingham (UK) – 23 - 27 April
 Mapei UK attended the UK's only international building show again this year with a two-storey stand of 88 m² located in Hall 11 (Flooring Hall). Following an awesome presence at the show in 2004, Mapei UK had a hard act to follow. It was decided to use Mapei's World of Colour as the main theme for the show, exploring the different use of Mapei systems for solving the trade's most common, and more unusual, construction problems. The fair was used as a platform to launch several new products to the British market, such as the adhesives ULTRABOND ECO VS90 and ULTRABOND ECO TACK, which were highlighted alongside other new Mapei products such as: ULTRACOLOR PLUS, ULTRAFLEX S2 MONO and FUGA FRESCA.



Domotex Middle East – Dubai (United Arab Emirates) – 28 - 30 May
 241 exhibitors from 36 countries displayed their products at the Domotex Middle East in Dubai. 5,200 visitors used the opportunity offered by this international trade fair for carpets and resilient floor coverings to get a close look at their many products and innovations. Mapei was the only adhesive manufacturer attending the trade fair with a big, two-storey stand showing systems of products for laying resilient (carpet, vinyl, rubber) and wooden materials, ceramic tiles,

marble and sport flooring. Mapei's systems for installing artificial turf raised many visitors' attention and the company had the chance to meet potential agents,

distributors, contractors and architects from several Middle East countries such as Qatar, Bahrain, Saudi Arabia, Oman, India, Pakistan, Algeria and India.



REACH:

THE STATE OF THE ART OF THE EUROPEAN REGULATIONS FOR THE CHEMICAL INDUSTRY

by Amilcare Collina*, Mapei SpA

The aim of REACH (which stands for "Registration, Evaluation and Authorisation of Chemicals") is to set up an unified system for the Registration and Evaluation of approximately 30,000 "existing" (introduced before September, 1981) and "new" (introduced after September, 1981) chemicals.

With the new system, whoever produces or imports an annual amount equal to, or higher than, one tonne of a given substance, will be obliged to register it at the European Agency for Chemicals.

The new Regulations include the institution of an Agency based in Helsinki. The role of the Agency will be to coordinate the technical, scientific and administrative aspects of REACH and to standardise all the procedures at an European level.

The Registration includes the compilation of:

- a Technical Dossier, which will contain information regarding the intrinsic properties and applications of the substances (the data required will be proportional to the quantities produced or imported);

- a Chemical Safety Report, containing an assesment of the risks of the chemicals.

The various Authorities of each Member State, coordinated by the Agency, will be involved in both the Evaluation of the Technical Dossiers and the Evaluation of the substances, with the power to ask for further information which is not contained in the Technical Dossier.

Substances with particular properties which represent a danger to the public health, such as CMR (carcinogenic, mutagenic or toxic to reproduction), or to the environment, such as PBT (persistent, bioaccumulative and toxic) and vPvBs (very persistent and very bioaccumulative), together with other substances, such as endocrine modulators, will be subject to Authorisation.

Downstream Formulators and Users of the chemical substances will also be involved in the REACH system.

They will be obliged to create a close communication relationship with both their own

Suppliers and those of their Clients, in order to guarantee that information along the whole chain regarding substances and preparations is precise and complete.

Procedure

The proposal for the Regulations is currently under scrutiny by the European Institutions: the Parliament and the Council, as established by the "co-decision procedure", the target being that it is approved in the course of 2006 and that it is implemented in 2007.

After the first phase, in which expert Parliamentary Commissions examined more than 4,000 amendments presented for the Regulations Proposals, the 17th of November, 2005 saw the first reading before the European Parliament.

The Council is also working non-stop on the REACH programme, which is considered to have the utmost priority. On the 13th of December, 2005, under the Chairmanship of the United Kingdom, a political agreement on the Document was reached, an agreement which will be consolidated under the current Chairmanship of Finland.

Even though a number of improvements have been carried out to the Regulations Proposal presented by the European Commission in October 2003, there is still considerable uncertainty regarding the effective applicability of the procedures contained in the new Regulations, and on the impact they will have, especially on the small and medium-size companies.

There is still plenty of work to be done, therefore, to make the Regulations applicable and to defend the competitiveness of the chemical companies, while still respecting the original principles of the Commission's Proposal:

- a definition of the priorities for the Registration phase should be based on the effective Risk Assessment inherent to the use of chemical substances, rather than according to the quantities produced or imported;

- Obligatory Data Sharing between different companies is undoubtedly a fundamental issue,



The Vinavil facility in Villadossola (VB) encloses a wastewater recycling system.

Mapei is actively involved in the Responsible Care programme, the commitment of the chemical industry on a worldwide basis for a more responsible management of health, safety and environmental problems.



Authorisation of the use of chemicals. Clearly-defined boundaries for authorisation and sufficient time to find alternative solutions are essential points to safeguard the competitiveness of the chemical companies.

Comment

Apart from further improvements which the Italian chemical industry is pressing for (and which will be the subject of intense lobbying by the Italian Federation of the chemical industry, Federchimica, to get them added into the Regulations), it is already possible to carry out an initial assessment of the impact that REACH will have on the European chemical industry when it becomes operative.

Without a doubt, the new standards will force the chemical industry to carry out a severe, costly assessment on how to implement them. The European Parliament voted in favour of the REACH Regulations at its first reading, thus interpreting the requirements of the general public. The chemical industry is science and technology certifying a number of innovations, to provide solutions for the overall objective of conserving natural resources and the environment and

especially in order to defend the small and medium-size companies. With the vote taken on the 17th of November 2005 at the European Parliament, this concept was accepted for tests carried out on vertebrate and non-vertebrate animals, while chemical-physical data remained excluded;

- the same standards required for European Producers should also be applied to Importers of articles containing chemicals, in respect of the principles laid down by the WTO. This is the only way to safeguard the competitiveness of the aforementioned European Producers;
- the safeguard of the Confidentiality of Commercial Information is another crucial obstacle which must be overcome, and is of particular concern to formulators;
- the final critical point regards the phase for the

protecting people's health: to sum up, it aims to improve the quality of life. However, and not only in Italy, the chemical industry is not perceived by the general public as "sustainable". With the introduction of the REACH Regulations, the chemical industry is at a crossroads. It may choose the road which leads to resisting the changes, by trying to postpone the obligations required by the new standards for as long as possible, but this is only a short-sighted, losing approach. Short-sighted in that, even if it managed to postpone these obligations to a date yet to be defined, it would never be able to completely elude them; they are required by the general public. A losing choice because, by focusing its efforts in this direction, the industry would lose sight of the crux of the problem: namely, reduced competitiveness and lower prospects compared with newly-industrialised countries, where the production costs are considerably lower, and will remain so for a number of years. So, what's the alternative?

To bravely choose the road which leads to product innovation, considering sustainability as the guiding star for this path. The current state of awareness for the environment and safeguard of our health imposes a behaviour which is aimed at sustainability, and encourages a wide-reaching research programme which regards sustainability for the product as its main

priority. I am firmly convinced that, if the chemical industry shows concrete, credible signs that it wishes to follow this road, support from the stake-holders will not be lacking, to guarantee a transparent, scientifically-based risk assessment programme, along with support from the Policy Makers for the high investments which the road to innovation brings.

Sustainability may represent a factor for competitiveness, as long as the characteristics of sustainability are explicitly illustrated in the performance characteristics of the products, and are acknowledged by the market as a value, which means information and education strategies aimed at consumers and industrial users, the definition of a coherent standards programme and a legislative programme which provides incentives for sustainable solutions. In so doing, the European chemical industry may construct legitimate barriers against the entry of products from other markets with sustainability characteristics which do not meet the European standards.

Europe has a solid base of tradition, culture, knowledge, business capacity and resources to take up this road successfully. One should not forget that the chemical industry was born in Europe, and that Europe still claims the first position for the value of the production of chemicals in the world.

** Prof. Amilcare Collina is Mapei's Head of Public Relations with the scientific community both in Italy and abroad.*



ANNUAL MEETING OF FEDERCHIMICA AND REACH

Federchimica's (the Italian Federation of the Chemical Industry) Annual Meeting was held in Milan on 26th June, 2006 (see photo below) and was attended by Mapei's CEO, Giorgio Squinzi, as its President. The meeting provided the chance to take stock of the general trend in the Italian chemical industry and put forward proposals to make the sector more competitive. This important annual event gave Squinzi the chance to begin his speech by stating that: "The Italian chemical industry is alive and kicking. Thanks to its wealth of innovation, people and know-how, it can provide a great contribution to developing the Italian country".

As regards the forthcoming introduction of the REACH regulations on chemical substances, which in Italy will replace the total of over 40 different sets of regulations currently in force on these matters, Giorgio Squinzi pointed out that: "Federchimica wants to make REACH as reasonable as possible in terms of its contents and as easy to enforce as possible, particular for the Italian medium-size and small chemical companies and for all the over 100,000 businesses belonging to every sector using chemical products".

With this in mind, Squinzi officially announced that Federchimica will be setting up "CENTRO REACH", a centre also backed by the Lombardy Regional Council together with Assolombarda (the Association of the Italian industries and service companies located in the Lombardy region) and Confindustria Lombardia (the Lombardy branch of the Confederation of Italian Industry). It is no coincidence that Lombardy is involved, because it is the second biggest Italian region for chemicals in terms of employment and the biggest for the number of companies working in the sector. This means that Lombardy will be the Italian region most affected by the new regulations. So that businesses are properly prepared to comply with what is stipulated in REACH, CENTRO REACH aims, on one hand, to continue providing information and training and, on the other, to create business consultancy structures and services for companies.



GENERAL MEETING

ISO/TC 61

Technical Standards on Adhesives and their Polymeric Raw Materials land in Korea.

by Roberto Leoni*, Mapei SpA

Jeju is the largest and most famous island belonging to the Republic of Korea. It is situated about one hundred kilometres off the southern coast of Korea and covers an area of 1800 km² around Mount Hallasan, an extinct volcano visible from every point on the island, whose peak is snow-capped in winter.

Due to its mild climate, strikingly romantic landscape and unique culture, whose rituals and legends still feature in the everyday lives of the island's inhabitants, Jeju is one of the favourite destinations for both local and international tourism.

The annual general meeting of the ISO/TC 61 "Plastics" Technical Committee, whose various working groups draw up international standards on adhesives, was held from 24th-30th September 2005 against the picturesque backdrop of this fascinating setting.

Over 210 delegates from about twenty countries from every continent attended this event of global proportions. The Japanese delegation, which had 86 members, was by far the biggest, followed a long way back by the hosts themselves (26 delegates), the Chinese delegation (21 delegates) and American representatives (20 delegates). Germany, which brought along 16 delegates, was the European nation most deeply involved in ISO operations (International Standardization Organization), followed by the British (10).

The Italian delegation was comprised of six experts from the world of plastic materials and their related products. The team included Roberto Leoni from Mapei, who for years now has been commissioned by Unichim (Ente di normazione tecnica operante nel settore chimico - Italian Agency for Standardisation in the chemical field) to represent Italy at ISO/TC 61 for anything related to adhesives and polymeric raw materials used in their manufacture.

For several years now Roberto Leoni has been involved in the working groups SC11/WG5 "Polymeric Adhesives", SC9/WG14 "Polymeric

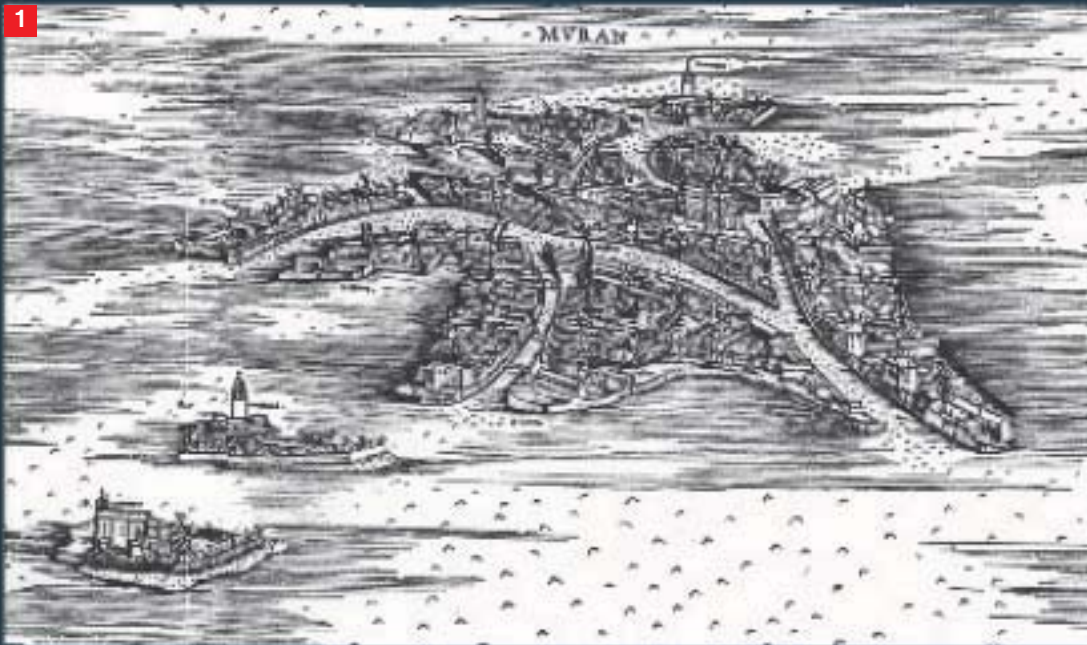


Participants in the ISO/TC61/SC12/WG5 work team on "Unsaturated Polyester Resins, Epoxy Resins and Other Resins".

Dispersions", SC12/WG5 "Unsaturated Polyester Resins, Epoxy Resins and Other Resins" and SC9/WG23 "Polyvinyl Alcohol" on drawing up international technical standards for assessing the performances of products the adhesives industry is interested in. In the ISO working groups he has brought his valuable experience gained in the realm of standardization as President of Unichim Adhesives Commission since 1990.

Each year the ISO/TC 61 general meeting is hosted by a different nation. Jeju (Korea) follows Chengdu (China) in 2004 and precedes Yokohama (Japan), where the meeting is planned to be held in 2006. For the first time since it was established, ISO/TC 61 is being held for three years in a row in East Asia. India has also staked its claim to host the event in 2007. The great interest Asian nations have shown for international standards goes hand-in-hand with the dazzling boom in some of their economies. These new players on the international market realise that the demand for "standardized" products is - and will continue even more so to be - an important constraint on their exports to the west. The governments of these countries have, therefore, chosen to invest heavily in know-how about international standards, so as to successfully continue the powerful challenge they are making to our own manufacturing systems. 

**Roberto Leoni, Mapei's Head of Health, Safety and Environment, is President of the Italian Association of Adhesives and Sealants Manufacturers and President of Unichim Adhesives Commission.*



VENETIAN BEADS: the Reclamation of "Conterie" in Murano

**Mapei's
commitment
for the
environment in
developing
products for
renovation and
reclamation
works.**

by Giorgio Ferrari, Mapei R&D Laboratory, Milan (Italy)



Murano, one of the islands of the Venice lagoon, has always been associated with the beautiful colours and reflections of artistic glass produced by the master glassmakers. Over the centuries, these artists have passed down the secrets of the art of creating glassware of absolute beauty from generation to generation.

The production of artistic glassware in Murano started in 1292, when Doge Tiepolo, with the aim of protecting the city of Venice against the frequent fires caused by the numerous kilns, ordered all the furnaces to be moved from the city to Murano, giving impulse to the industrial activity which still characterises this island (Photo 1).

All kinds of glasses, cups, vessels and chandeliers were produced along with small beads called "conterie", which were used as hard-stone substitutes⁽¹⁾. The most probable etymology of the Italian word "conterie" is the Latin *comptus*, which means decoration⁽²⁾ and later began "contigia" in Italian vernacular.

The "conterie" found application in various sectors of fashion, clothing, interior design and fancy goods and were exported from Murano all over the world and used loose or threaded to manufacture flowers, fringes and other objects (Photo 2).

The most successful period was between the end



Photo 1.
View of the island of Murano (from a sixteenth print by Jacopo de' Barbari).

Photo 2.
Roses made of "conterie" beads.

Photo 3.
Aerial view of Murano; the "conterie" area is marked in red.

Table 1.
Comparison of the contamination rates of the "conterie" soil with the Italian standards (D. Lgs. 471/99).

Table 1 Element	Concentration (mg/kg dry matter)	D. LGS 471/99 ITALIAN STANDARDS	
		Soil for residential use (mg/kg dry matter)	Soil for industrial use (mg/kg dry matter)
As	204	20	50
Cd	11.9	2	15
Cr _{tot}	55.1	150	800
Cu	279	120	600
Hg	1.84	1	5
Pb	2321	100	1000

of the nineteenth century and the beginning of the twentieth century, with a total production of more than one thousand tons of beads per year. The subsequent decay caused the end of most of the "conterie" factories and the loss of the heritage of knowledge and experience associated with their use.

The most important factory, which closed down at the end of eighties, extended over an area of about 14,000 m² in the south-east of Murano island (Photo 3).

In 1995 the Municipality of Venice bought the old factory and drew up a renovation project for the destination of the old "conterie" factory to new functions, such as residential, commercial and

tourist activities. Right from the beginning, the environmental situation appeared critical: in fact, apart from the widespread presence of waste materials, obsolete machinery and all kinds of residues from the glass production, the soil of the whole area resulted highly contaminated by heavy metals (mainly arsenic, lead, copper and cadmium), well over the limits allowed by the Italian standards for residential uses D.Lgs. 471/99 (Table 1). It was therefore necessary to proceed with the reclamation of the whole area in order to bring it up to the environmental standards for the new urban use.

The project approved by the Municipality of Venice was set out in three steps: the clean-up of



Photo 4.
Model of the residential buildings which will be built at the end of the reclamation of the "conterie" area.

Figure 1.
Flow-chart of the "conterie" reclamation project, which includes the on-site reuse of the inert material.

Figure 2.a
The reduction of the W/C ratio decreases the porosity of the stabilised granular material and dramatically reduces the leaching of contaminants in the environment.

Figure 2.b
The reduction of the W/C ratio decreases the

porosity of the stabilised granular material and reduces the penetration of aggressive agents, improving the durability of the material.

Photo 5.
Illustration of the granular cementitious agglomerates obtained from the contaminated soil of the "conterie" area.

the whole area; the reclamation of the contaminated soil and the urbanisation of the area with the construction of residential buildings, student accommodation, hotels and shops (Photo 4). The intervention is currently being accomplished by Edilvenezia, a public company which is concessionary of the Municipality of Venice for urban interventions of renovation and reclamation. Up to now, the first step of the intervention has been completed and the land reclamation phase has already begun, using an innovative technology which was developed mainly thanks to the contribution of Mapei. The large amount of contaminated material (about 30,000 m³) and the difficulties of approaching the site have strongly discouraged, both for practical and economical reasons, the removal of the contaminated soil, its transport and disposal in landfills on the mainland. The same factors made the transportation of clean material for the filling of the excavations from the mainland unfeasible. For both these reasons, a new solidification/stabilisation process (S/S) has been developed in order to obtain a treated material which could be easily reused (Fig. 1).



The project is fully compliant with the contents of the European Community Directives regarding waste and pollution prevention, which pose the "reuse" of wastes as desirable action, second only to prevention. By the application of the traditional S/S techniques, based on the treatment of the contaminated material with cement, the resulting material still maintains the "soil-like" appearance of the original material, particularly concerning its high specific surface and the permeability to water. These characteristics represent the weak spot of the traditional S/S treatments, especially in those applications where the stabilised material comes into contact with water. In fact, the higher the exposed surface and the porosity, the higher the leaching and the deterioration of the stabilised material.

Figure 2.a

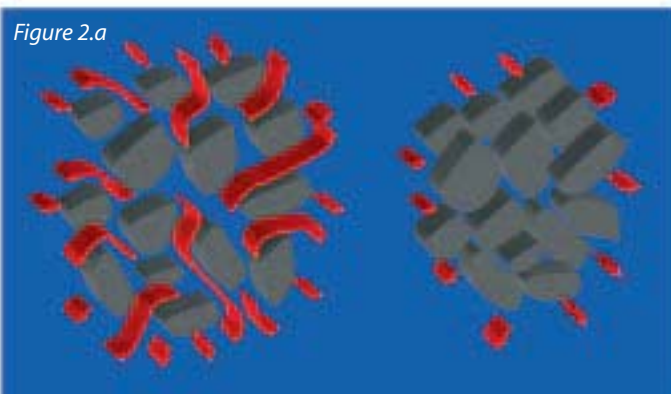


Figure 2.b

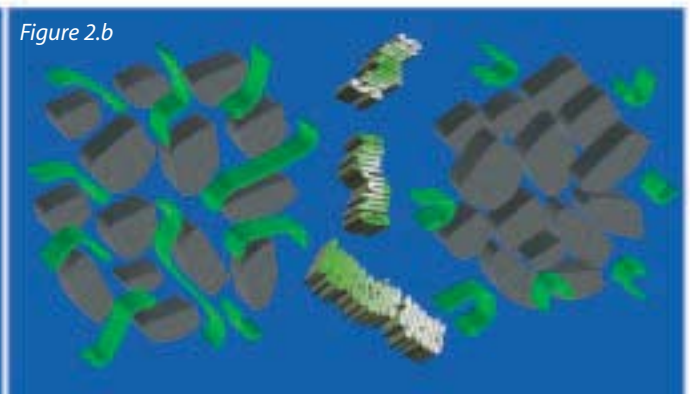


Figure 1

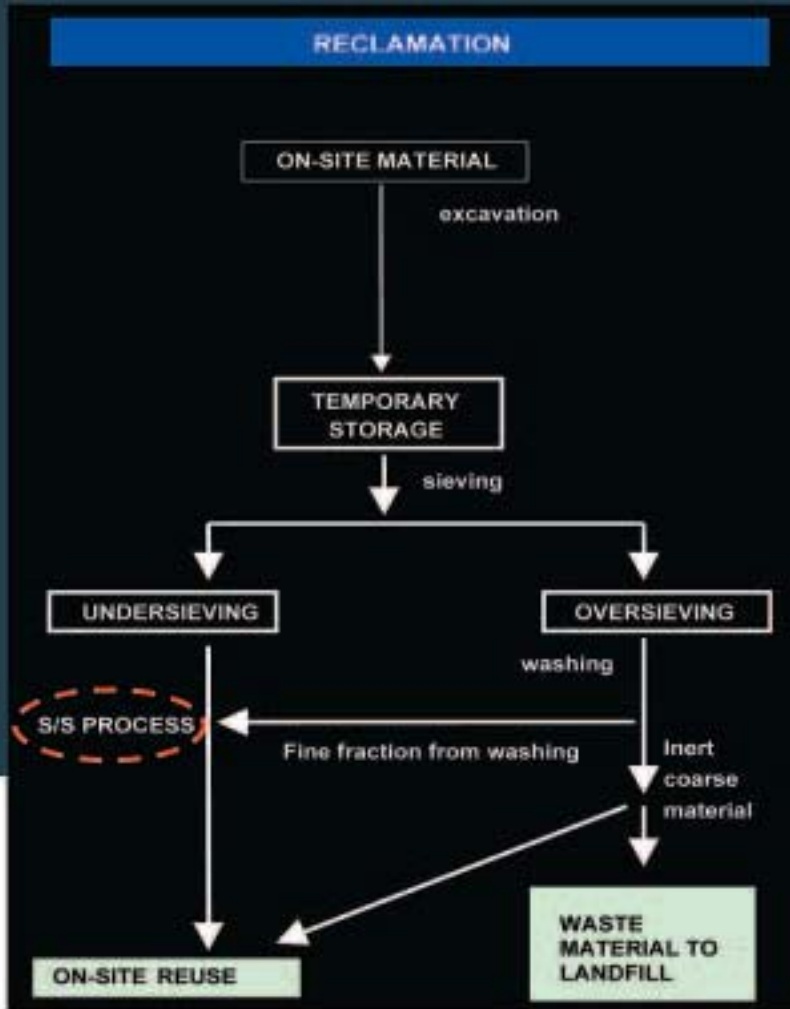


Table 2. Results of the leaching tests (16 days test, according to Italian standards D.M. 5.2.98) of untreated “conterie” soil and of granular materials obtained by the new Mapei process. The comparison shows the excellent results of the granulation process and confirms the possibility of reusing the stabilised granular material obtained by treating the “conterie” soil.

Table 2

Element	Untreated soil (µg/L)	Granular material (µg/L)	D.M. 5.2.98 standards (µg/L)
As	1254	<8	50
Cd	3.9	<1.6	5
Cr _{tot}	54	<1.6	50
Cu	175	18.7	50
Hg	<0.8	<0.8	1
Pb	217	32	50

These disadvantages are further worsened when the stabilised material is exposed to seawater containing aggressive agents, such as chlorides and sulphates ions, which badly affect the durability of cement materials.

The new process developed by Mapei is an innovative and substantial improvement of the traditional S/S techniques and consists in the transformation of the contaminated soil in granular cementitious agglomerates characterised by low water-cement (W/C) ratio, high mechanical strength, low porosity, low permeability to water and high durability (Photo 5). An additional environmental benefit of the new process is the dramatic reduction of the leaching of contaminants from the stabilised material in comparison with the traditional S/S processes (Figs. 2a and 2b).

The aforementioned results are achieved by the

use of MAPEPLAST ECO1, an additive specifically developed for this purpose, which introduces the fundamental concepts of High Performance Concrete (HPC) to the S/S process. The strong reduction of the mixing water and the hydrophobic effect produced by MAPEPLAST ECO1 allows dense, low porous and mechanically resistant granular cementitious agglomerates to be obtained, which are further characterised by an extremely low permeability in comparison with the traditional S/S materials. MAPEPLAST ECO1 is an additive made of two components (MAPEPLAST ECO1/A and MAPEPLAST ECO1/B), which can be both conveniently mixed in any proportion.


The stabilised granular material of the “conterie” project is produced by a two step process including: a) the blending of the different ingredients and b) the formation of granular material. In the first step, the different ingredients (soil, cement, MAPEPLAST ECO1 and water) are added to an efficient mixer in order to obtain a homogeneous mixture. A typical mixture is composed by 60-70% by weight of soil, about 25% of cement and the remaining 5% by water and the additive.

After 28 days of curing, the mechanical characteristics of the “conterie” stabilised granular material are in between those of mixed gravel and clayey limestone and confirm that these materials, thanks to the low W/C ratio used for their production, can be conveniently used for filling and other non structural applications.

Furthermore, the leaching of contaminants of the stabilised granular material obtained by the “conterie” soil is extremely low and the results of the leaching tests fully comply with the Italian standards for reusable materials (D.M. 5.2.98) (Table 2). The durability of these granular materials is further improved by the presence, in the original “conterie” soil, of clayey materials, which act as “pozzolanic” materials and favour the consumption of calcium hydroxide (Ca(OH)₂) produced by cement hydration.

The results of this highly innovative process will be verified through a five years monitoring programme, with the execution of leaching and mechanical testing on the stabilised material.

The new process of the “conterie” can be considered a “pilot-project” for the rehabilitation of other areas contaminated by heavy metals and represents the first example in Italy of a new approach to the problem of the reclamation of contaminated soils, which is able to harmonise the environmental requirements with the economical feasibility aspects.

The “conterie” project also confirms the capacity of Mapei to develop innovative solutions in the complex field of environmental problems. 

(1) Gina Cristanini, Wilma Strabello, *Creare e decorare con le perline (Creating and Decorating with Beads)*, Ed. Demetra, Colognola ai Colli (VR), 2000, p. 12.

(2) Various authors, *Perle e Impiraperle. Un lavoro di donne a Venezia tra '800 e '900 (Beads and Bead Threaders. A Women's Job in the 19th and 20th Century Venice)*, Ed. Arsenale, Venezia, 1990, p. 9.



1



2

The Restoration of Santa Chiara al Pantheon

The French Papal Seminary in Rome was built on the ancient remains of Agrippa Baths. The 150th anniversary celebrations in 2003 provided the chance to carry out conservation work on the inside of the seminary church, Santa Chiara al Pantheon.

Santa Chiara al Pantheon Church in Rome is part of the French Papal Seminary architectural complex.

This institution was set up in 1852, when the French clergy decided it needed a new seminary in Rome to accommodate French-speaking students, so the following year Father Louis-Marie Barazer de Lannurien was commissioned to find a suitable site.

This was no easy matter, due both to the lack of suitable buildings for this purpose and the large amount of money involved.

A few months later after inspecting numerous sites, Lannurien decided to buy the building hosting the old Irish College in Via degli Ibernesi. The first French students entered the seminary in October 1853. The building soon turned out to be inadequate and Father Lannurien's successor decided to extend the Seminary.

This was around the time when the roof and vaults of Santa Chiara Church had already collapsed. The church stood alongside the old and abandoned Clarisse Convent. The complex had been built on the part of Campo Marzio where Agrippa Baths were once located. Opened in 12 B.C. by Emperor Marcus Vipsanius Agrippa and supplied by the Aqua Virgo aqueduct, they were Rome's first public baths and when Agrippa died they were handed over to the people of Rome.

In the Middle Ages the baths were completely destroyed and the bricks and rubble used to construct other buildings. However, one can still see the remains of the vaults of the old baths in the cellars of the French Seminary.

In 1856 Pope Pius IX finally allowed the Seminary to buy the ground where the church and the convent stood. In 1859 a Papal Bull officially acknowledged the French Seminary and the next pope, Leone XIII, named it a Papal Seminary.

The original building of Clarisse Convent was in a terrible state of disrepair due to damp and neglect, so the old properties were gra-



3 4

*Photo 1.
The outside façade of
Santa Chiara al
Pantheon Church.*

*Photos 2, 3 and 4.
The Mapei-Antique line
was used for restoring
the render around the
base, in order to ensure
the structure was
dehumidified properly.*

*Photo 5.
The drawing shows
what the
neighbourhood
of Santa Chiara al
Pantheon Church used
to look like back in
Roman times; the
highlighted structures
are currently included in
the French Papal
Seminary complex,
which the church
belongs to.*

dually replaced by a unitary architectural complex between 1883-1890, designed in Bramante-style. The church was eventually rebuilt in 1857. Work was completed in November 1861 and the church was consecrated as both Immacolato Cuore di Maria and Santa Chiara in 1881.

Mapei's Work

To commemorate the 150th anniversary of the founding of the French Papal Seminary in 2003, the rector, Father Yves Marie Fradet, and the other brothers decided in conjunction with the Rome Fine Arts Commission to carry out a series of operations required for the structure and wall surfaces of Santa Chiara al Pantheon.

The works were carried out over the period stretching from March 2003 to March of the following year and involved reinforcing the church and restoring the interior coating work. Mapei's Technical Assistance Division was contacted for this part of the work and it carried out a number of inspections to assess the real state of the church interiors.

The technicians suggested starting work by reinforcing the walls as well as the lower

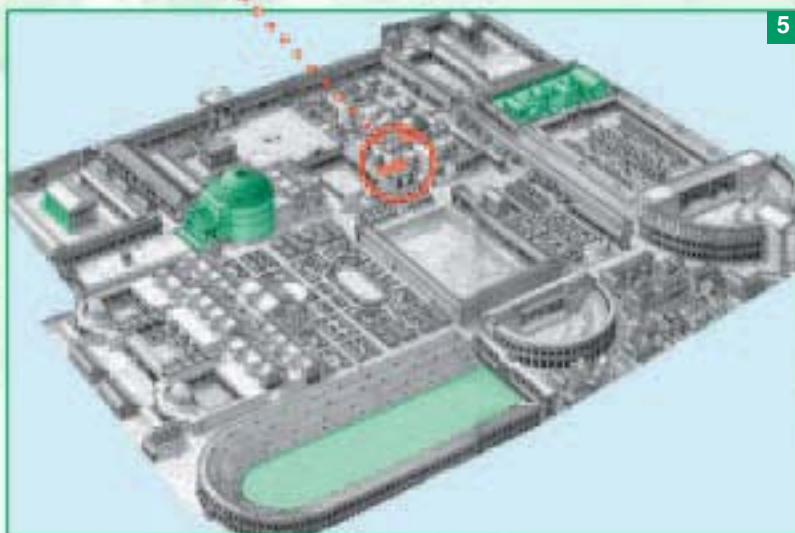
vaults and the floor of the apse.

MAPEGROUT THIXOTROPIC*, a fibre-reinforced cementitious mortar, was used for these operations. This product is a ready-mix mortar composed of high-strength cement binders, graded aggregates, special additives and synthetic fibres specially designed for the cortical repair of damaged concrete structures on either vertical or horizontal surfaces. In this particular instance, a 5 cm layer was applied, reinforced with metallic meshes at the intrados (web size 10x10 cm and diameter of 8 mm).

The Mapei Technical Assistance Division was also consulted about removing the crumbling render and repairing it around the base, where it was advised using products of the MAPEI-ANTIQUE line to ensure the structure was dehumidified properly. In this specific case, MAPEI-ANTIQUE RINZAFFO* salt-resistant pre-packed mortar was used, ideal as first coat in the restoration of damp stone, brick and tuff masonry. After this had been applied, MAPEI-ANTIQUE MC* pre-packed dehumidifying mortar was then applied on, a product especially recommended for the restoration of buildings severely damaged by soluble salts. The work was completed by applying MAPEI-ANTIQUE FC* pre-packed sulphate-resistant fine mortar.

Mapei's Technical Assistance Division also helped with the management of the coating operations. First PLANITOP 560* was applied to ensure a very smooth finishing layer. Then SILEXCOLOR PRIMER*, a modified potassium silicate-based primer, was applied on it. After the primer was completely dry, SILEXCOLOR PAINT*, a silicate-based vapour-permeable protective and decorative paint, was applied to create a particularly attractive look.

The repair work also involved removing and repositioning the floor made of slabs of multi-coloured Carrara marble, installed using traditional techniques: the work was required for installing a new under-floor heating



5



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Photos 6, 7 and 8. Mapei products were used for protecting and decorating the old church walls. The surfaces were first treated with Planitop 560 to ensure a very smooth finishing. Silexcolor Primer was then applied. After the wall base was completely dry, a coat of protective, decorative Silexcolor Paint was applied to endow the surfaces with a particularly attractive look.

Photo 9. The repair and conservation work also involved the wall frescoes, which had been damaged by rising damp and ageing.

system fitted with coils. The old washable colours were removed and about 280 m² of nineteenth-century frescoes were restored. The eighteenth-century wooden choir and all the wooden and mechanical parts of the organ designed by Frazat (one of only four of its kind in the whole world) were also repaired. The Mapei products, recommended and then used, were a real success with the Fine Arts Commission and met the client's requirements in every way, despite certain difficulties encountered when carrying out the works, due to the different degrees of absorption of certain walls as regards the colouring.

RM



9

***Mapei Products:** the products referred to in this article belong to the "Building Speciality Line" range. The technical data sheets are available on the "Mapei Global Infonet" CD/DVD and from the website: www.mapei.com.

Mape-Antique FC: cement-free light-coloured fine mortar for finishing dehumidifying mortars applied on stone, brick and tuff masonry.

Mape-Antique MC: pre-packed, cement-free, light-coloured dehumidifying mortar for the restoration of damp stone, brick and tuff masonry.

Mape-Antique Rinzafo: light-coloured salt-resistant cement-free pre-packed mortar to be used before applying Mape-Antique MC, Mape-Antique CC and Mape-Antique LC dehumidifying mortars on stone, tuff and brick substrates.

Mapegrout Thixotropic: controlled-shrinkage fibre-reinforced mortar for the repair of concrete.

Planitop 560: white lime-cement based finishing compound for very smooth finishing of both fresh and cured interior and exterior cementitious renders and concrete surfaces; it can be applied from 0 to 3 mm thick.

Silexcolor Paint: silicate-based, vapour-permeable protective and decorative paint system for cement- or lime-based renders in interiors and exteriors.

Silexcolor Primer: modified potassium silicate-based primer in water solution.



TECHNICAL DATA

S. Chiara al Pantheon Church, enclosed in the French Papal Seminary complex, Rome (Italy)

Work: reinforcement of the concrete structures, dehumidifying of the render around the base, protection and decoration of the wall surfaces.

Years: 2003-2004

Customer: French Papal Seminary

Works Management: BB.AA. Fine Arts Commission, Rome – arch. Barbato

Works Director: Father Yves Marie Fradet

Consultant for the Static Reinforcement Works: Prof. Eng. Michetti's Office (supervisor: Eng. Perfetti)

Project and Works Management: Studio Dettagli (arch. Massimo Monteleone and arch. Paolo Marciari)

Contractor: Edilcor, Genzano (Rome)

Mapei Distributor: Univex, Rome

Mapei Co-ordinator: Leonardo Butò; photos by Pino Mancini



In the Northern part of England, not far from the Scottish borders, a new architectural complex hosts important governmental offices.

Nedfar

Benton Park View



Benton Park View is a 26-hectare site situated to the north of the city centre of Newcastle-upon-Tyne, Great Britain. This area lately underwent a redevelopment project promoted by the Private Finance Initiative (PFI).

Interserve Project Services is the company that negotiated a 45 million pounds contract to design and build new offices for the Inland Revenue and the Department for Work and Pensions.

The Nedfar Project is situated on an existing estate, where demolition works began in May 2003. Following 70 weeks of development, the completed buildings were handed over to the Inland Revenue in October 2004.

The Nedfar complex comprises of two identical buildings divided into four cores, each with a centre atrium with lifts.

The area is totally open plan over four floors and each floor overlooks the main walkway. It features four office buildings linked in pairs together with a restaurant block. Each three storey office block has a central atrium which is used as a break area for employees and an area in which informal meetings and seminars can be held. Each pair of block has a glazed link which not only contains the lifts but also incorporates formal meeting rooms at first and second floor levels.

The offices are of a similar design to the previous phase with a few subtle changes in certain materials and colour schemes which all remain in keeping with the original design format.

The total floor area of the Nedfar office blocks amounts to about 23,290 m². The floor tiling in the atrium, restaurant and WC areas is a reconstructed granite tile manufactured by Bisazza in large format (60x60 cm).

Two shades of the tile have been used in a regular grid pattern in order to provide some visual relief and to help conceal the necessary movement joints on such a large floor area. The toilets and the showers incorporated larger format ceramic floor tiling and Freestyle mosaic wall tiling (47x47 cm) from Vitra.


Mapei's Contribution

Mapei products were used to install over 3,000 m² of wall and floor coverings in the atrium, toilets and restaurant area.

ADESILEX P4* high performance, rapid setting, full contact cementitious adhesive was used throughout the project to fix the Bisazza 'Granit 90' floor tiles to various areas of the building including atrium and restaurant floors. This is an adhesive particularly suitable for interior and exterior floor bonding of medium and large size ceramic tiles and stone material slabs in environments subject to heavy traffic, as it was the case for the Nedfar project. By using ADESILEX P4*, the floors were ready for light foot traffic after approximately 4 hours, with full use possible after 24 hours. After 4 hours the floors were ready for grouting with ULTRACOLOR* high performance grout, which resulted an ideal product for such a large scale project as it ensures uniformity of colour, does not produce surface efflorescence and dries quickly, thus allowing the floor surfaces to be put into use after a relatively short time.

In the toilet and shower areas about 1100 m² of Freestyle mosaic tiles manufactured by Vitra were installed on the walls with ADESILEX P25*, a ready-to-use paste adhesive with no vertical slip and extended open time, which has now been replaced by MAPEGRID D2 on the UK market*. Grouting was again carried out with ULTRACOLOR*.

The Bisazza 'Granit 90' floor tiles were also bonded on the WC floors with KERAQUICK* adhesive mixed with LATEX PLUS* latex admixture, which improves deformability to meet the requirements of class S2 according to EN 12002. It also ensured high bonding strength and allowed the contractors to walk on the flooring area after only 2-3 hours. ULTRACOLOR* guaranteed perfect grouting of the floors also in this area. In the Nedfar

project Mapei's products were on hand to resolve a major problem that occurred in the flooring of the atrium area. Cracks had appeared around the metal pillars in several places throughout the development, mainly due to shrinkage in the screed. The way round this problem was for the contractors to use MAPETEX SYSTEM*, a completely removable installation system for ceramic tiles and stone materials that can also be used as an anti-fracture membrane. The area was first carefully cleaned, then MAPETEX* non-woven fabric was bonded with KERALASTIC* high performance polyurethane adhesive. Tiles were thereafter installed on this substrate like in the rest of the atrium and provided with a flexible layer to avoid any future cracking. 

TECHNICAL DATA

Nedfar Government Building, Benton Park View, Newcastle-upon-Tyne (UK)

Years: May 2003 - May 2004

Customers: Newcastle Estates Partnership and The Inland Revenue

Project: Arch. Ryder HKS

Project Management: P Plunkett Tiling Co. Ltd

Contractor: Interserve Project Services Ltd

Installation Company: P Plunkett Tiling Co. Ltd

Materials: granite (Vitra) and mosaic (Bisazza) tiles

Mapei Distributor: P Plunkett Tiling Co. Ltd

Mapei Co-ordinator: Mark McDonnell, Mapei UK

***Mapei Products:** the products referred to in this article belong to the "Products for Ceramic Tiles and Stone Materials" range. The technical data sheets are available on the "Mapei Global Infonet" CD/DVD and from the web site: www.mapei.com.

Mapei adhesives and grouts conform to EN 12004 and EN 13888 standards.

Adesilex P4 (C2F): high performance rapid setting full contact cementitious adhesive for ceramic tiles and stone material.

Adesilex P25 (D1TE): ready-to-use paste adhesive with no vertical slip and extended open time for ceramic tiles.

N.B. This product has been replaced in the UK market by Mapegrip D2 ready-for-use water resistant paste adhesive.

Keralastic (R2): high performance two-component polyurethane adhesive for ceramic tiles and stone material.

Keraquick (C2FT): high performance, deformable, rapid setting cementitious adhesive with no vertical slip for ceramic tiles and stone material.

Latex Plus: latex admixtures inducing elasticity to be mixed with Keraquick.

Mapetex System: completely removable installation system for ceramic tiles and stone material. Can also be used as an anti-fracture and removable membrane.

Ultracolor (CG2): fast-setting and drying, anti-efflorescence grout for joints from 2 to 20 mm, available in 26 colours. **N.B.** The product has been replaced by Ultracolor Plus.



THE NATIONAL MUSEUM OF THE AMERICAN INDIAN

A very memorable building has recently joined the many distinguished museums and monuments that line the National Mall leading away from the USA Capitol in Washington.

The National Museum of the American Indian (NMAI) is housed in a structure full of flowing curves reminiscent of wind and water. Construction of the design, conceptualized by Canadian architect (and Native American) Douglas Cardinal, began in September 1999. The museum opened 5 years later in September 2004.

'American Mist' Natural Stone GA Masonry, based in Crestwood, Kentucky (USA), won the contract to install 90,000 m² of 'American Mist' stone slabs in the interior of the museum. The slabs - or "pavers", as property manager Channing Strom calls them - were quarried in Pennsylvania and fabricated in Quebec, and specifically chosen because of the curved white wisp that runs along each paver. A unique challenge for Strom's group was to set the slabs so that the curving wisp would provide a distinct directional flow for visitors walking through the museum.

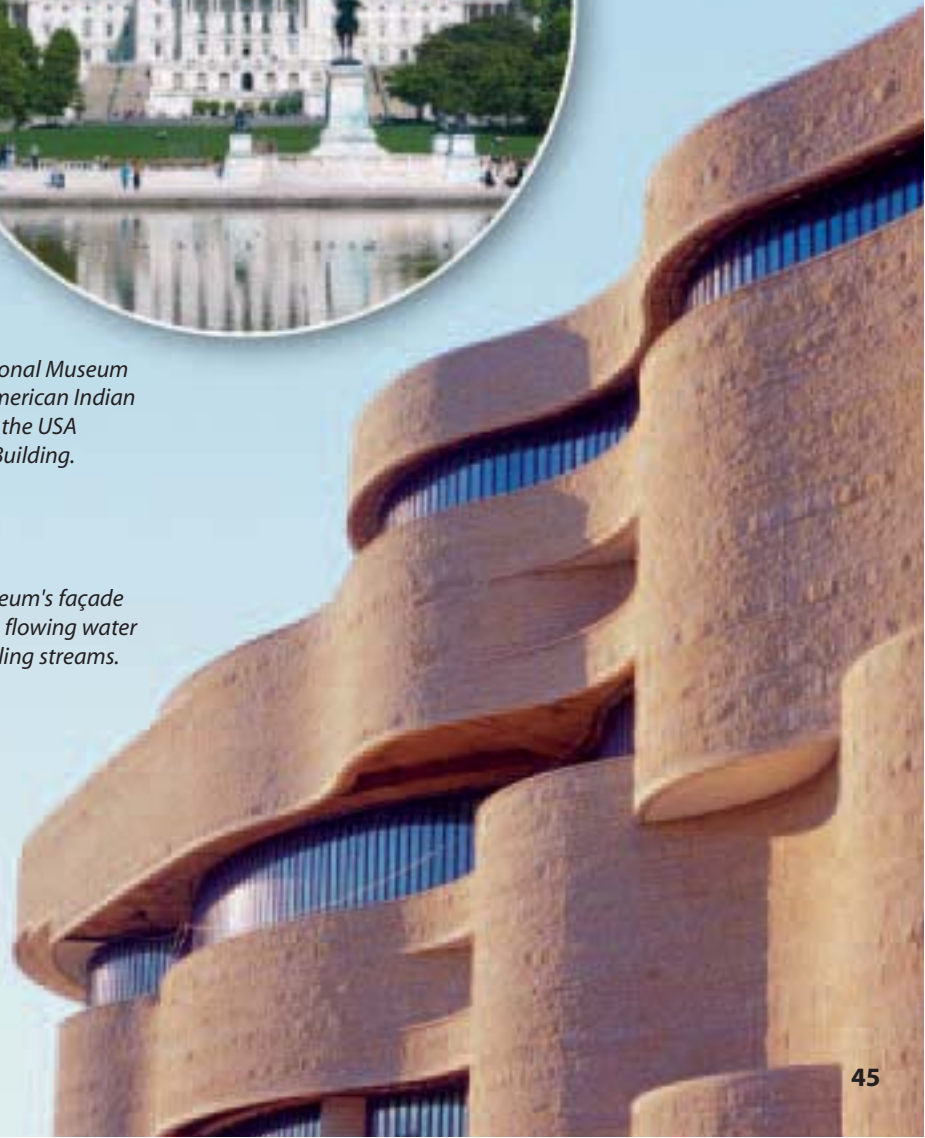
Strom first consulted with Brolain Distributors in Cambridge, Ontario, where GA Masonry also has an office. Brolain suggested the use of Mapei's KERABOND* + KERALASTIC* (which is the American equivalent of ISOLASTIC available in the rest of the world) premium flexible mortar system to ensure a strong, lasting installation. Morris Tile, Mapei's distributor located in Alexandria, Virginia (USA), provided the KERABOND* + KERALASTIC* system, along with ULTRACOLOR* ultra premium sanded grout. Strom also used Mapei's PLANICRETE AC*, an admixture for concrete that makes the mortar bed and slurry bond coat for preparing the installation surface.

The interior stone installation began in



The National Museum of the American Indian sits near the USA Capitol Building.

The museum's façade suggests flowing water and rippling streams.



January 2004 and was completed by June. The stone slabs were fabricated to fit the curves of the building and, while most of the work was done in Quebec, Strom's team still did a significant amount of stone cutting on site. It was necessary to ensure that the flooring pavers could accommodate the floor's rounded edges. Similar to the exterior of the building, there were no right-angle edges in the interior.

Waterproofing the Fountain and Stream

An interesting exterior feature of the museum reflects the desire of Native American people for harmony within their environment. A water element, commemorating a tidal creek that originally ran through the construction site, now spills from a fountain at the northeastern corner, flowing along the northern façade to the eastern entrance. GA Masonry worked to waterproof

the fountain and stream, which is actually located above the museum's maintenance facilities. To prevent water from leaking onto the equipment and supplies below, Strom used Mapei's MAPELASTIC 315, a flexible cementitious waterproofing membrane, to line the entire length of the water element.

Fast-track Mortar System

GA Masonry lined the stream with the 'American Mist' slabs, using Mapei's GRANIRAPID*, a premium, rapid-setting, flexible polymer-modified mortar system. GRANIRAPID* cures quickly, allowing application of grout in 3 to 4 hours. When Strom used ULTRACOLOR sanded grout, the installation permitted water immersion in 72 hours, as opposed to 28 days for traditional systems.

The use of GRANIRAPID ensured that the water element would be comple-

ted before the opening of the museum, while the wisps of white in the black granite slabs accented the stream's directional flow.

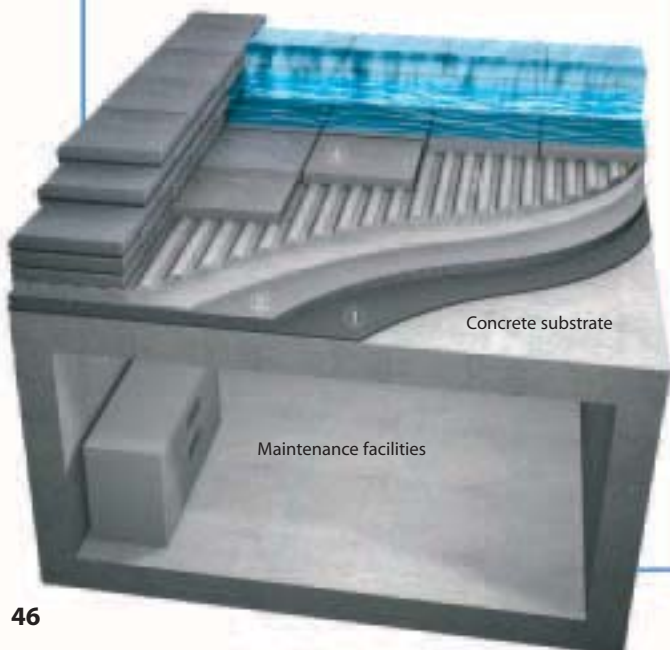
Strom used local installers for the NMAI project, which received several local craftsmanship awards, including a special award from the Washington Building Congress. The work also received recognition from *Mid-Atlantic Construction Magazine*, where it was honored with the Cultural Institution Award of Merit for 2004.

"Mapei was very helpful to us throughout the installation; representatives were always available to support us with training and answers for our technical questions," said Strom. "The MAPELASTIC 315* was easily applied with a trowel and set up well, but the most amazing thing was how quickly the GRANIRAPID* mortar set up. It really helped us complete the project in time for the grand opening."

WATERPROOFING THE EXTERIOR FOUNTAIN AND STREAM AT NMAI

- ① **Mapelastc 315** flexible waterproofing membrane, used to waterproof the water element.
- ② Mortar bed consisting of sand, cement and **Planicrete AC** acrylic latex admixture.
- ③ **Granirapid** fast-setting flexible mortar system, used to fast-track installation of 'American Mist' stone along the water element
- ④ **Ultracolor** ultra premium sanded grout, used to install stone along the water element

The use of **Granirapid** and **Ultracolor** allowed the installation to cure rapidly, developed high early mechanical strength and ensured water immersion in a revolutionary 72 hours, as opposed to 28 days for traditional mortar systems.




The Smithsonian Institute, which oversees the building, consulted closely with Native Americans to ensure that the museum tells the story of a living people. Reflected in its exhibits of ancient and modern work are beautiful examples of storytelling, traditional and contemporary music, and centuries-old craftsmanship and artistry. Mapei has taken great pleasure in being a part of the construction of a home for the spirit of a proud and enduring people. 

Photo 1.
90,000 m² of 'American Mist' stone slabs were installed in the museum's interior.

Photo 2.
The exterior fountains, featuring a powerful cascade and a quiet pool, commemorates an original tidal creek.

Photo 3.
Installing 'American Mist' stone slabs in the stream.



Museum Information

If you happen to be in Washington, you can easily enjoy a visit to the National Museum of the American Indian.

Location:

NMAI on the National Mall
Fourth Street & Independence Ave., S.W.
Washington, D.C. (USA) 20560
Phone: +1-202- 633-1000

Hours:

10 a.m. to 5:30 p.m. daily; closed Dec. 25.
(Exhibition spaces, café and stores begin closing at 5:15 p.m.)

3

TECHNICAL DATA

National Museum of the American Indian (NMAI), Washington (USA)

Works: installation of stone slabs on interior floorings and on the fountain's exterior surfaces; waterproofing treatment of the fountain and stream.

Year: 2004

Customer: Smithsonian Institute, Washington

Project: Douglas Cardinal, Ottawa (Canada) and SmithGroup, Washington

Works Management: Clark Construction LLC, Bethesda (USA)

Contractor: GA Masonry Corporation, Crestwood, Kentucky (USA)

Installation Company: GA Masonry Corporation

Mapei Distributors: Morris Tile, Alexandria, Virginia (USA) and Brolain Distributors, Cambridge, Ontario (USA)

Mapei Coordinator: Dave Cima, Mapei Corp.

***Mapei Products:** Granirapid, Kerabond, Keralastic (which is the American equivalent of Isolastic available in the rest of the world), Mapelastic 315, Planicrete AC, Ultracolor. The products referred to in this article are manufactured and distributed in America by Mapei Corp. (USA) and Mapei Inc. (CDN). For further information, see the web site www.mapei.com.



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and for laying on uncured screeds
and deformable substrates
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applications, on both
horizontal and vertical surfaces
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- High vapour permeability
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- efflorescence eliminated due to the absence of free lime
- No alkali-silica reaction
- Ability to colour the products on site by the addition of suitable pigments



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The water FACTORY

A successful partnership for the Roxane water-bottling factory at Merignies.

by Raphaël Gobin, Mapei France

Roxane, whose headquarters are at Alençon dans l'Orne, in France, has witnessed steady economic growth due to the increasing demand for mineral water. Since 2002 Roxane, the third-biggest mineral water-bottling company in France, has been operating at its new bottling factory in Merignies.

The main site contractor of this project was Eurovia Normandie, represented by the Alençon agency.

The site was developed on three distinct areas:

- a conditioning and labelling area covering 3,000 m², classified as U4P4S according to the Technical Rules issued by CSTb;
 - a decanting and washing area covering 400 m², classified as P3 according to the Technical Rules issued by CSTb;
 - an administration and changing-rooms area covering approximately 600 m², classified as P3.
- The floors in these three areas were laid with 12cm-thick, 20x20cm Flaviker porcelain tiles (on a concrete substrate), while Colorker and Aleluia majolica tiles were bonded to the walls.

Eurovia Alençon fully satisfied the requirements of the client, by keeping constantly in touch during the entire course of the work and meeting the agreed deadlines. They used the best materials available to overcome numerous technical problems which arose during the work. A real partnership was formed to face up to the



challenge of also following the work "from afar". Eurovia Alençon also involved the company Carrelages Ornaïs in the project, the local distributor with a 40-year experience in the distribution of tiles and laying products.

This company was quick to include the name of Mapei when it made a competitive offer for the work and also encouraged permanent technical discussions between the various partners involved in the operation. Mapei gave an important contribution especially as far as the technical aspects of the work are concerned. The work in question involved an extremely large surface area and the time available was very limited. What is more, there were particularly complex technical problems to be overcome due to the special plant machinery to be installed and the future working conditions in each area.

Carrelages Ornaïs carried out a technical presentation to the client which had been prepared by Mapei, documenting the company's vast experience in industrial projects.

Indeed, the solutions offered by Mapei for bonding the tiles had to con-

sider both their class (U4P4S), to guarantee that all the areas would maintain this classification, and its commercial viability, given the large areas involved.

Mapei's technical and commercial organisation proved to be of precious help during the delicate commercial negotiations. Raphaël Gobin, regional sales manager for Mapei in Orne, who interfaces on a daily basis with Carrelages Ornaïs, got in touch with his colleague from the north, Gregory Delnatte, and presented him with the numerous technical site problems to be examined and verified.

Gregory Delnatte decided, therefore, to make an inspection of the factory under construction, to look around the various areas and to meet the partners involved in the construction of the factory.

It was at this stage that Mapei recommended the use of GRANIRAPID* system, classified as suitable to "U4P4S areas for heavy traffic" and, in their experience of industrial areas, considered ideal for use in this special kind of environments.

KERAFLEX* high-performance cementitious adhesive, on the other hand, was used for laying the floors in the administration and changing rooms areas. ADESILEX P22 PLUS* (a product only available for the French market), an adhesive particularly suitable for bonding ceramic tiles on plasterboard surfaces, was used for the walls. The tile joints were sealed using white KERACOLOR FF*, cementitious grout for joints up to 6 mm.

One of the most complex areas was the washing and decanting area, not due to the type of surface or for the usage class to respect, but for the future working conditions in this special area and because the products used for cleaning and maintenance would be in permanent contact with the tiles and joints. For this application, Mapei experts recommended using KERAPOXY P* for bonding the tiles and grouting the tile joints. This product was chosen because of its special characteristics, which make it suitable for environments in which total hygiene is required along with resistance to most aggressive chemicals, not to mention its easy application.

Mapei took an active part in the laying of the tiles in this area, with one of their own technicians, Patrick Kuprinskas, working together with the installation company Prestibat, by carefully demonstrating the best methods for using KERAPOXY P* for the tile joints.

His work consisted above all in demonstrating its special use by employing professional tools developed for the tile joints, and modified felt floats which allow the product to emulsify and make cleaning more simple.

To obtain successful results on this site, it was important to create good collaboration between all the parties involved, and that Mapei offered valid technical assistance for the start-up of the tile-laying and grouting operations.

In fact, during the site start-up, this assistance was made possible due to the availability and presence of a Mapei technician, who showed the installation company how to get the best results out of the Mapei products. Addressing certain problems which arose directly on site, led the team towards the use of products which were different to those initially selected, and Mapei contributed to this team-work by offering valid technical opinions without damaging relationships with their client.

There is an aspect worth mentioning, which helped in the success of the site work: the excellent cooperation between the client, the site manager, the installation company, the distributor and the manufacturer.

The initial "geographic" distance between all the various members of the team was overcome by the permanent dialogue between the distributor and Mapei, who received valid on-site assistance from Eurovia Normandie (represented by Alençon agency), and with the agreement of Roxane, the final client.



Our thanks go to "Mapei & Vous", n. 11, published by Mapei France, from which this article was taken.



***Mapei Products:** the products referred to in this article belong to the "Products for Ceramic Tiles and Stone Materials" range. The technical data sheets are available on the "Mapei Global Infonet" CD/DVD and from the web site: www.mapei.com. Mapei adhesives and grouts conform to EN 12004 and EN 13888 standards.

Adesilex P22 Plus (D1TE): ready-to-use paste adhesive for laying tiles on internal walls. **N.B.** This product is only available for the French market.

Granirapid (C2F): high performance, two-component, fast-setting and drying cementitious adhesive for ceramic tiles and stone material.

Keracolor FF (CG2): high performance cementitious grout, polymer modified, water repellent with DropEffect®, for joints up to 6 mm.

Keraflex (C2TE): high performance cementitious adhesive, with no vertical slip and extended open time for ceramic tiles and stone material.

Kerapoxy/Kerapoxy P (RG): two-component, acid-resistant epoxy grout, available in 26 colours, for joints of at least 3 mm. Can also be used as an adhesive. **Kerapoxy P** is recommended for grouting large flooring surfaces.



TECHNICAL DATA

Roxane mineral water-bottling plant, Merignies (France)

Work: installation of ceramic tiles on industrial floors
Year: 2002

Customer: Roxane S.A.

Project and Work Management: Eurovia (represented by Alençon agency)

Contractor: Eurovia

Installation Company: Prestibat, Carrieres-sur-Seine (France)

Mapei Distributor: Carrelages Ornaïs

Mapei Co-ordinators: Raphaël Gobin and Gregory Delnatte, Mapei France

THE WATER TEMPLE

by Stefan Schallerbauer and Helmut Schweda, Mapei GmbH (Austria)

A holiday in the Ötztal Alps (Austria) normally means long, winding descents on the snowy pistes, or one of the many other sporting activities surrounded by the snow-bound winter scenery. But now, since October 2004, the offer in Ötztal has been enriched by yet another fascinating amenity: the "Aqua Dome" thermal baths in Längenfeld. This "aquatic temple" combines the unspoiled mountain environment with one of the largest thermal projects in Europe. The architects have designed spectacular geometric forms into the complex, to add a new, charming touch to the Tyrolean panorama, and thanks to a large use of glass, have created an original blend with the surrounding Alpine environment.

The entire structure covers an area of approximately 50,000 m². It includes a 4-star hotel with 140 rooms, a thermal complex comprising an indoor, glass-covered area, an outdoor area and the so-called "Noah's Ark of the Alps", an area specially created for families and young children.

The walls and floors of a number of areas have been installed using Mapei products, which are more than capable of

meeting an endless range of requirements of the materials employed: in fact, ceramic and porcelain tiles, stone slabs, wood and textile coverings have all been laid.

The wellness area includes a 500 m² workout area and another zone dedicated to relaxing. This zone includes a "Loft" sauna, a Finnish sauna, a herbal sauna and steam baths, to satisfy all the desires and wishes of even the most discerning visitor.

The centre of the complex is made up of two halls with covered, hot-water swimming pools (34-36°C) and raised galleries dedicated to regeneration treatments.

By crossing a bridge, visitors may easily move from the second thermal swimming pool to the large "crystal dome" which marks the entrance to the outdoor area. Here, after passing through two swimming pools with running water, there is the undisputed architectural focal point of the entire complex, with three external, hanging pools of various sizes (up to a maximum of 16 m), supported by columns of up to 8 metres in height.

The seats in one of these pools, the "Sole" pool, are formed



by an inner curved nucleus of foam polystyrene, on which MAPELASTIC* two-component, waterproofing cementitious mortar was applied by spray at a thickness of approx. 2-3 mm. Ceramic tiles were then laid on these surfaces using ADESILEX P9* cementitious adhesive. Because of the presence of salt water, the tile joints were grouted using KERAPOXY* two-component, acid-resistant epoxy grout. Stone slabs were laid in the "Loft" sauna, on a substrate formed using TOPCEM PRONTO*, ready-to-use, prepacked mortar for fast-drying screeds with controlled-shrinkage, mixed with PLANICRETE* synthetic rubber latex. In the area dedicated to families and small children, which takes on the form of a sailing ship and which is separate from the main complex, one of the main attractions for the younger guests is the 90m-long slide. Various types of porcelain tiles were laid in this area using KERAFLEX* cementitious adhesive, whereas the underwater surfaces were laid using ADESILEX P9* cementitious adhesive, particularly recommended for laying small-sized porcelain tiles. In the bathrooms and changing rooms for the swimming

pools, MAPEGUM WP* liquid membrane was employed to waterproof the walls and floors, while ULTRACOLOR* was used for grouting the flooring joints. The common areas in the hotel were prepared using EPORIP* adhesive to seal the cracks in the screeds for all the floors, before laying slate tiles in the coffee areas and corridors using KERAQUICK* cementitious adhesive. The tile joints in the floors in the bathrooms were grouted with KERACOLOR FF* cementitious grout, while the joints in the corridors and main hall in the centre were grouted using ULTRACOLOR*. MAPESIL AC* was employed to seal the expansion joints in all the above areas. In all, a total of approximately 26,000 m² of tiles and stone slabs were used in the "Aqua Dome". Parquet floor covering was also widely used: in fact, this material was chosen for the hotel rooms, the restaurant, and the fitness and wellness areas. ADESILEX PA* synthetic resin based adhesive was used for laying the floors, after treating the substrates with PRIMER PA* ready-to-use, synthetic resin based primer.

PROJECTS





Parquet was also laid in the sauna area, where ULTRABOND P990 1K* one-component, polyurethane, elastic adhesive was the preferred choice.

Textile floor covering was also used in some areas of the hotel. The substrates were initially treated with PRIMER G* synthetic resin based primer in water dispersion with very low emission of volatile organic compounds. The next step was to apply NIVORAPID FF* thixotropic cementitious levelling mortar, along with more than 10 tonnes of ULTRAPLAN ECO* ultra fast-hardening, self-levelling compound with a very low emission of volatile organic compounds. Finally, approximately 5 tonnes of ROLLCOLL* universal adhesive in water dispersion was used to bond the textile floor covering. Thanks to the wide range of materials used, each with its own specific laying characteristics and requirements, Mapei were given the opportunity of demonstrating the wide range of products available and the reliability of the results achieved with each different kind of application.



Our thanks go to "Realta Mapei", n. 3, published by Mapei GmbH (Austria), Mapei GmbH (Germany) and Mapei Suisse SA (Switzerland), from which this article was taken.



***Mapei Products:** the products referred to in this article belong to the "Products for Ceramic Tiles and Stone Materials" and "Products for the Installation of Resilient, Textile and Wood Floor and Wall Coverings" ranges. The technical data sheets are available on the "Mapei Global Infonet" CD/DVD or at the web site: www.mapei.com.

Mapei's adhesives and grouts conform to EN 12004 and EN 13888 standards.

Installation of ceramic tiles and stone materials:

Adesilex P9 (C2TE): high performance cementitious adhesive with no vertical slip and extended open time for ceramic tiles.

Eporip: two-component solvent free epoxy adhesive, for monolithic sealing of cracks in screeds.

Keracolor FF (CG2): high performance cementitious grout, polymer modified, water-repellent with DropEffect®, for joints up to 6 mm.

Keraflex (C2TE): high performance cementitious adhesive, with no vertical slip and extended open time for ceramic tiles and stone material.

Kerapoxy (RG): two-component acid-resistant epoxy grout, available in 26 colours, for joints of at least 3 mm. Can also be used as an adhesive.

Keraquick (C2FT, class S2 according to EN 12002 when mixed with Latex Plus): high performance, deformable, rapid setting cementitious adhesive with no vertical slip for ceramic tiles and stone material.

Mapegum WP: fast drying flexible liquid membrane for interior waterproofing.

N.B. The product has been replaced by Mapegum WPS.

Mapelastic: two-component flexible cementitious mortar for waterproofing concrete, balconies, terraces, bathrooms and swimming pools.

Mapesil AC: solvent-free, acetic-cross-linking mildew-resistant silicone sealant, available in 26 colours and transparent.

Planicrete: synthetic-rubber latex for cementitious mixes.

Topcem Pronto: ready to use prepacked mortar for fast-drying (4 days) normal setting screeds with controlled shrinkage.

Ultracolor: fast setting and drying, anti-efflorescence grout for joints from 2 to 20 mm, available in 26 colours. **N.B.** The product has been replaced by Ultracolor Plus.

Installation of wooden floors:

Adesilex PA: adhesive based on synthetic resins in alcohol for bonding wooden flooring.

Primer PA: ready-to-use synthetic resin based solvent primer for bonding with Adesilex PA.

Ultrabond P990 1K: ready-to-use polyurethane one-component, solvent-free, elastic adhesive for all types of wooden and laminate flooring.

Installation of textile floors:

Nivorapid FF: ultra-fast setting thixotropic cementitious levelling mortar for horizontal or vertical surfaces for thicknesses from 3 to 20 mm.

Primer G: synthetic resin based primer in water dispersion with very low emission of volatile organic compounds (VOC).

Rollcoll: universal acrylic adhesive in water dispersion for textile floor and wall coverings.

Ultraplan Eco: ultra-fast hardening (12 hours) self-levelling smoothing compound for thicknesses from 1 to 10 mm, with very low emission of volatile organic compounds (VOC).

TECHNICAL DATA

Aqua Dome, Längenfeld (Austria)

Work: laying ceramic, wooden and natural stone coverings in the swimming-pool, wellness, thermal baths and hotel areas

Years: 2002-2004

Project: Schnöger + Fischer

Works Management: Vamed, Wien (Austria)

Contractor: Vamed

Installation Companies: Koller (for ceramics, porcelain tiles and natural stone) and Royal Parkett (for resilient materials)

Materials: ceramic tiles, porcelain tiles, natural stone slabs, wooden floors and textile floorings

Mapei Co-ordinators: Stefan Schallerbauer and Helmut Schweda, Mapei GmbH (Austria).

2:23:30
B.A.A. BOSTON MARATHON

MAPEI TRIUMPHS



It has been an incredible start to the season for the athletes in the Co-Ver Mapei Running Team. Wonderful sporting days were crowned by exceptional results and world-class performances have been a real thrill. The taste of victory really is the sweetest thing of all and reliving these moments is more than just a news report.

So, with the help of some wonderful pictures freezing in time the magical instances of finish lines crossed before the others, it is only right to give an account of how Mapei athletes are making their mark all over the world.



BOSTON MARATHON

She almost did not take part at all due to bureaucratic problems. She only got there a day and a half before the start and... she triumphed at the Boston Marathon!

Rita Jeptoo is a real champion and she showed it at the 110th running of this prestigious American race held on 17th April. Clearly the special training sessions in Kenya were just the right preparation for the twenty five year old athlete from Nandi, who once again improved on her personal best over the distance, winning in a time of 2h 23' 38" (previous PB, 2h 24' 22", Helsinki 2005), the eighth fastest run

ever in this marathon.

The athlete from the Co-Ver Mapei Running Team got her tactics just right: always up with the leaders, Jeptoo ran much of the marathon on the shoulder of the pre-race favourite Jelena Prokopcuka from Latvia, who won in New York and Osaka last year. When the leading group was down to just three (Jeptoo, Prokopcuka and the Japanese athlete Reiko Tosa, who was fourth at the last Olympics), the athlete in the Co-Ver Mapei Running Team vest increased the pace just under 6 km from the finish in what turned out to be a winning move.

Jeptoo immediately gained a 9 second lead over Prokopcuka, who in the meantime had broken away from the Japanese athlete. The Latvian showed all her class by making up some of the distance and getting to within just 5 seconds of Jeptoo, who in turn reacted like a true champion to extend her lead again and cross the line 10 seconds ahead of Prokopcuka. Reiko Tosa came third, 33 seconds behind. This win proved once and for all that Rita Jeptoo is one of the strongest marathon runners in the world. Her next objective is the New York marathon...

STRAMILANO

The Co-Ver Mapei Running Team literally dominated the



2006 Stramilano, claiming a magnificent double: 1st Aniko Kalovics in the women's race, 1st Paul Kimayo Kimugul in the men's event. The Kenyan athlete running for Co-Ver Mapei put in a magnificent performance; always in the leading 4-5 positions, **Paul Kimayo Kimugul** suddenly increased the pace between 18th-19th km, breaking away from his fellow competitors, who had kept with him until then.

The half marathon around the city of Milan was a really exciting spectacle. The African athlete made a triumphant entrance into the Milan Arena, which was full of fans; the twenty-six year old from Keyio finished in 1 h 00' 49", ahead of the Tanzanian Martin Sulle (1 h 01' 10") and the much-applauded Olympic gold medallist Stefano Baldini (1h 01' 14").

The Co-Ver Mapei Running Team was even more dominant in the women's race. As predicted, the race featured a virtuoso solo performance by **Aniko Kalovics**, who took the lead virtually from the very start, setting a pace the other athletes just could not keep up with: after 7 km she already had a lead of 25" over her closest rivals. Kalovics then kept up the pace to win her second consecutive Stramilano in a time of 1h 10' 55".

Patrizia Tisi put in an excellent performance to come in behind her in a personal best over the distance of 1h 12' 12", showing just what an incredibly consistent athlete she is. Fatna Maraoui also ran well, coming in fourth in 1h 13' 46", just 20 seconds behind Ivana Iozzia in third place, a sign that this athlete from the Co-Ver Mapei Running Team is improving all the time.

The team management was delighted with the results, as all the staff's hard work paid off. The results achieved by Kalovics and Kimugul also auger well for the future, seeing as they both plan to make their marathon debuts next autumn: Kimugul is scheduled to take part in the Venice Marathon, while Kalovics ought to be running in the Italian Marathon. As we await these two big races, the extraordinary performances of Co-Ver Mapei runners did not end here.


27^A SCARPA D'ORO - GREAT BUPA IRELAND RUN

Kimayo Kimugul won the 27th running of the Scarpa d'Oro race on Saturday, 8th April, producing a top-class performance. The Kenyan athlete belonging to the Co-Ver Running Team really showed his strength at Vigevano (near Milan, Italy), running a bold race as he gradually wore down his rivals, setting his own pace from the fourth of seven laps onwards. Only fellow Kenyan Kisani tried to keep up, making a late surge, which enabled him to finish just behind the Co-Ver Running Team athlete, without ever really worrying him. The Tanzanian Sulle came in third, after being beaten by Kimugul at the Stramilano too.

This race confirmed the impression that Kimugul really is a world-class athlete, even though this certainly was not his favourite distance (8 km) and, most significantly, bearing in mind how tough the course was.

Aniko Kalovics also put in a good performance to finish third in the Great BUPA Ireland Run held in Dublin on 9th April.

The 10 km race was mainly run inside Phoenix Park.

The Co-Ver Mapei Running Team athlete came in behind the Ethiopian Meselech Melkamu (31' 40") and the Portuguese runner Fernanda Ribeiro (31' 55"). Aniko, who crossed the line in 32' 42", was also at the centre of a curious incident: since her race bag never got to the airport, the Hungarian star athlete ran in a pair of shoes borrowed from another runner. 

MAPEI FRANCE CALLS... THE GROUP RESPONDS

CYCLING UP
MOUNT VENTOUX
IN THE NAME OF SPORT

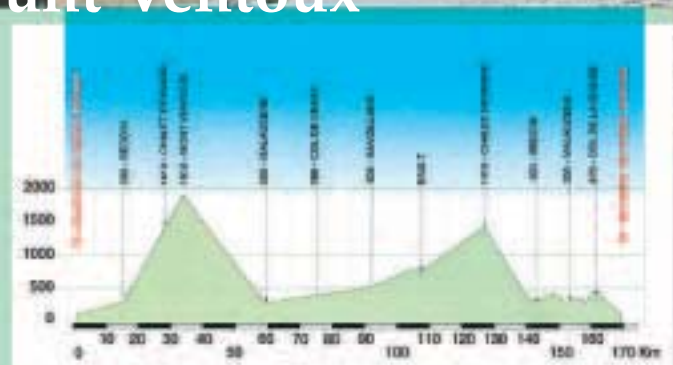


The Tour of France and Mount Ventoux

The Tour of France regularly includes the climb to the summit of this great peak, famous for its steepness and the heat in July.

Cyclists competing in the Tour climbed Mount Ventoux for the first time in 1951 during a stage from Montpellier to Avignon. Cyclists who have made a name for themselves on this climb include Charly Gaul in 1958, Raymond Poulidor in 1965, Eddy Merckx in 1970, Bernard Thévenet in 1972, Marco Pantani in 2000 and Richard Virenque in 2002.

During the 1967 tour, the British cyclist Tom Simpson died on the climb, a victim of the heat and drug-taking. Even Eddy Merckx was ill on this extremely tough climb.





Nicknamed the “Giant of Provence” by the French, Mount Ventoux (Windy Mountain) is one of the tallest peaks in the region, towering up to almost 2000 metres, and certainly gets its name from the fact that the mistral wind at times blows at over 160 km/h here, unhindered by any natural obstacle blocking its path.

Cycling up this mountain is the toughest climb of all and a real cycling enthusiast has to take on the challenges of its slopes at least once.

Mapei France arranged for about 160 cycling fans to meet on the slopes of Mount Ventoux on Saturday 3rd June, all part of the big “Mapei family”. Friends, customers and people working with Mapei from France, Italy, Switzerland and Germany were all delighted to take up this invitation, which promised an entertaining week-end in Provence, as well as plenty of sweat and real effort.

The participants belonging to the Mapei Group met at Novotel hotel in Avignon Nord late in the evening on Friday 2nd June. After a welcome aperitif, the sports schedule for the next day was outlined in full and the nature of the weekend's events began to

take shape. While the hotel was particularly warm and welcoming inside, the strong wind blowing outside had brought over some thick dark clouds from Mont Chauve (“Bald Mountain”, one more nickname for Mont Ventoux) and the evening temperature was normal for...winter.

This was Mount Ventoux's and its Col des Tempêtes' (Stormy Hill) way of welcoming those who were planning to “trespass” on it the following day. However, when the day after they all reached Beaumes de Venise (a typical Provence village where the race set off) right on time, the wind had fortunately dropped from the night before and it looked like being a beautiful day. So with the sun in their faces and in high spirits, the Mapei participants all got on their bikes ready to cycle through some charming Provence villages before starting up the long climbs.

There were three different routes for those taking part to choose from. The best cyclists could take a 170-km cour-

se taking them up Mount Ventoux twice. A second group took a 102-km route, which those in good shape could certainly take on. A third group faced up to a 75-km route “to discover” the mountain, including the relentless 20-km climb, which has made the Mont Chauve so famous. The leading riders battled hard and the fastest riders in the Mapei group reached the top of Ventoux in under 90 minutes. The rest of the group (most of those taking part) was probably delayed by the frequent breaks taken to photograph the striking mountain landscape encountered along the way.

Many participants were really taken with the setting, particularly the contrast between the greenery along the first section before scree suddenly appears just before the toughest part of the climb up near the summit.

After reaching the summit, the descent was no less fascinating in the sunshine, breathing in the sweet





smelling pines with the wind blowing in the hair of the fastest downhill cyclists (cycling at a speed of up to 100 km/h!). The less daring stopped once again to admire the setting....

After reaching Baumes de Venise, where they set off from, it was finally time for the Mapei participants to get off their bikes, take a shower and replenish themselves at the pasta-party specially laid on, so that they could recover their strength and all

the carbohydrates they had burnt and, above all, they could exchange stories about this heroic climb.

After enjoying some leisure time in the afternoon, the Mapei participants met up again in the evening in the courtyard of an ancient abbey in Avignon, now a favourite place with connoisseurs of food and drink, for an aperitif during which Giorgio Squinzi, CEO of Mapei Group, awarded prizes to some of the most deserving com-

petitors in the race, including the two ladies who completed the longest course in excellent times.

Finally, it was time for dinner and some lively conversation, talking just about everything, including cycling of course. Late in the evening, when it was time to part company, the Mapei participants promised to meet up again the following year for another cycling adventure up some other... Everest.



The Charm of Mount Ventoux

Near the village of Carpentras in Provence, Mount Ventoux towers up alone to a height of almost 2000 metres. This rocky mass covers an area measuring 25 kilometres in length and 15 in breadth, and it looms over a huge plain, whose altitude varies between 100-300 metres above sea level.

Separated from the Alpine chain like a guard that has been sent on ahead, for anybody arriving from the surrounding plain it is an imposing sight with blurred contours. Due to its unusual morphology, it is subject

to all kinds of weather effects and the range in temperature is quite considerable: ranging from suffocating humidity in summer to -30° in winter.

Moreover, in summer the oppressive heat is often followed by hailstorms and, sometimes, even snowfall. When the weather is clear, the summit affords one of the widest and most striking views in Europe. Over on the south side, behind the Plateau d'Albion and Mount Lure, Mount Viso borders on Italy. Further south, we have the gorges of Nesque, the Luberon countryside, Mount Saint-Victoire, the Berre lake and eventually the Mediterranean Sea. From the north side there is a view which, before reaching the great Alpine peaks, first provides glimpses of the Rhône Valley, the massifs of Cévennes and Mount Aigoual and then, finally, the great mountains surrounding Mont Blanc.

Looming over the whole of Provence from

a height of 1912 metres, Mount Ventoux is a natural paradise with a magnificent valley bottom, rich in wildlife and vegetation, so much so that it has been classed as a "Biosphere Reserve" by Unesco.

Its geographical location at the intersection of the Alpine ranges and the Mediterranean world creates a magnificent tapestry of environmental conditions, which makes for a truly exceptional micro-climate. Its height and location means that it encompasses all the different climates found everywhere from the Mediterranean to Lapland.

So, due to the exceptional richness of its eco-system, Mount Ventoux is a unique landscape where Mediterranean plants (olive trees, vines, green oaks, lavenders etc.) stand alongside northern plants - such as poppies from Greenland - blossoming in summer amidst the stones covering its peak.



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