

Realtà Mapei



Realtà Mapei International editing office wishes you
Happy New Year



Summary

Teamwork

Special Feature: Asia Pacific	2
Mapei in the Scandinavian Countries	28
Shotcrete Test Centre	30

The expert's opinion

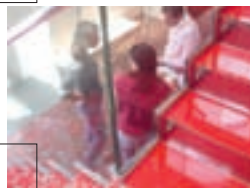
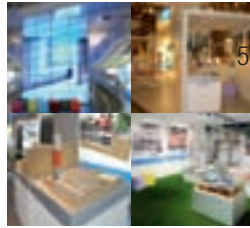
Resin and Cementitious Floorings	44
----------------------------------	----

Special feature - Trade fairs COVER STORY

Cersaie	internal supplement
Marmomacc	internal supplement
Saie	internal supplement
MADEexpo	internal supplement

News

2001 Cefic General Assembly	24
53 th European Ufemat Conference	26



Product spotlight

Mapetherm Tile System	inside back cover
Ultrabond Eco 520	43
Mapefloor System	48
Kerapoxy Design	back cover

Projects

One Central Macau	18
E18 Motorway	36
Resin and Cementitious Floorings	
Projects Portfolio	46
A "Green" Nursery in France	40

Sport division

2011 UCI Road Cycling Championships in Copenhagen	32
Mapei Day 2011	49

IN THE SPOTLIGHT

KERACOLOR GG page 20, **KERAFLEX MAXI S1** page 22, **EPORIP** and **PRIMER G** page 41

2011 marks the 150th anniversary of the unification of Italy, and the country organized many celebrating events. Mapei, whose headquarters are based in this country, warmly congratulates Italian citizens living both in Italy and abroad.



COVER STORY:

In Autumn 2011 Mapei took part in the main trade fairs of the building sector such as Cersaie, Saie, Marmomacc and MADEexpo (see the supplement to this issue of the magazine).

EDITOR IN CHIEF

Adriana Spazzoli

EDITORIAL CONTRIBUTORS AND ENGLISH TRANSLATION

Tiziano Tiziani, Federica Tomasi, Metella Iaconello, Martyn Anderson, Nicholas John Bartram

PRODUCTION AND EDITORIAL COORDINATOR

Metella Iaconello

GRAPHIC DESIGNER

Studio Magazine - Milan (Italy)

PRINTED BY

Arti Grafiche Beta - Milan

PUBLISHED BY

Mapei SpA
Via Caffiero, 22 - 20158 Milan (Italy)
Tel. +39/02/376731
Fax +39/02/37673214
website = www.mapei.com
E-mail = mapei@mapei.it

PRESIDENT & CEO

Giorgio Squinzi

OPERATIONAL MARKETING DIRECTOR

Adriana Spazzoli

REALTÀ MAPEI - BIMONTHLY MAGAZINE

Registered by the Tribunal of Milan n. 363/20.5.1991
Realtà Mapei International is published 4 times per year

CREDITS

Gianni Dal Magro, Mapei Australia, Mapei China Ltd, Mapei Construction Products India Pvt Ltd, Mapei

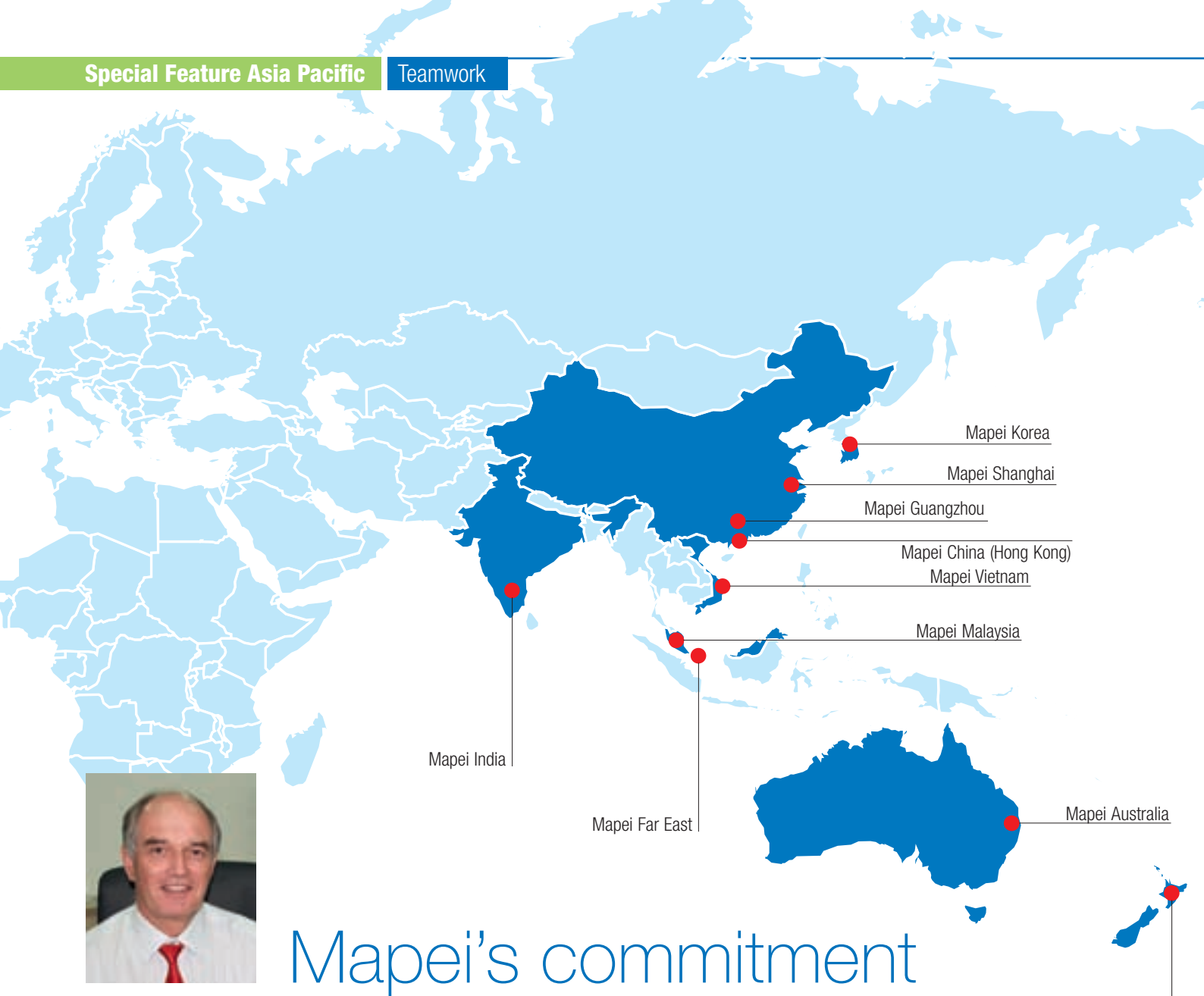
Construction Materials (Shanghai) Co Ltd, Mapei Construction Materials (Guangzhou) Co Ltd, Mapei Far East Pte Ltd, Mapei Korea, Mapei Malaysia Snd Bhd, Mapei New Zealand, Mapei Vietnam.



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

2011 is the International Year of Chemistry

Articles appearing in this magazine may be reproduced in whole or in part after obtaining the permission of the publisher. However, the source must be mentioned.



Above.
Marcel Smit, Mapei
Director for Asia
Pacific.

Mapei's commitment to the Asia Pacific Region

by Marcel Smit, Asia Pacific Director

The overall 'spending on construction' in the Asia Pacific region is continuously increasing and it is clear that for the foreseeable future, this will not change. Asia, especially China and India needs further expansion and improvement in infrastructure, residential buildings, hydroelectric power, etc.; so, it is evident that we can expect a very dynamic construction situation for many years to come.

'We want to achieve strong growth in Asia-Pacific' are the words of Giorgio Squinzi, Mapei's President and CEO. This confirms the commitment of the Mapei Group to invest in the build-up of resources that make substantial growth possible.

Mapei sees 3 ways to realize a stronger position in Asia Pacific:

- expanding organically by realizing strong sales growth in the existing companies in

Asia Pacific,

- opening up new markets in the regions where Mapei is not present yet with its own organization,
- exploring acquisitions that are aligned with our strategy.

To support the increasing sales, Mapei will strengthen its organization and open more sales-offices and manufacturing plants in the Asia Pacific region in the near future.

One of the pillars under the Mapei Group is 'Internationalization' or 'Globalization'; which means that Mapei aims to be present in all important construction markets in the world. A few examples of this strategy are mentioned below.

Acquisition of Henkel Business in Korea

Mapei acquired the Construction Adhesives business from Henkel in Korea, active

there with the well known brands 'Ceresit' and 'Thomsit'. This acquisition fits well with the Mapei's expansion strategy for the Asia Pacific region and is the basis for a much stronger presence in Korea.

Mapei Opened a Sales Office in India

Mapei opened a sales-office in Bangalore under the name of Mapei Construction Products India Pvt. Ltd. and the first warehouse-cum-factory is under construction. This is the start in a new continent and we are proud to inform that already the supplies to a few major projects are secured. All these actions - acquiring in Korea, starting in India, introducing innovative products, offering training, establishing technical service, sharing technical solutions, investing in new labs, etc. - are done to serve our business partners better in the future. This approach has resulted in substantial growth in the Asia Pacific region.



Founded in
1994

Headquarters, trade offices,
1 manufacturing plant and
1 Quality Control laboratory

38 Staff

Mapei Malaysia

Mapei has conquered the Malaysian market with its adhesives for ceramics and grinding aids

Mapei Malaysia Sdn Bhd was set up in 1994 in the industrial district of Shah Alam in Selangor, located about 25 km to the southwest of the capital of Malaysia, Kuala Lumpur. Back then the subsidiary operated as a trading company, employing 6 people responsible for importing products from Mapei Far East, the Group's subsidiary in Singapore, and then distributing them throughout Malaysia.

From June 2001, Mapei Malaysia Sdn Bhd began manufacturing powder solutions for installing ceramic tiles and stone material at the production plant in Rawang, approximately 35 km to the north west of Kuala Lumpur. The manufacture of latex-based liquid products began in 2008 and grinding aids were then introduced in 2010. In April 2001 a new mixer for liquids with a capacity of up to 10 tons was installed at the manufacturing plant in Rawang to boost

production and increase the sales and exports of these products. At the moment, the site's yearly manufacturing output is over 18,000 tons of powder products and 7200 tons of liquids.

During its first few years in operation, Mapei Malaysia Sdn Bhd focused on breaking onto the market with its solutions for installing ceramics. Thanks to its "solution for the job" promotional campaign and constant commitment to training, down the years it has become a leading player on the Malaysian market for products for installing ceramics and natural stones. This is shown by the fact that the Company's solutions for this kind of application have been used to construct such important buildings as Petronas Twin Towers, the most important icon in Kuala Lumpur and the entire nation.

Over recent years the Malaysian market has also shown its appreciation for the Mapei range of grinding aids, which can help local

Above.
The Mapei Malaysia manufacturing plant in Rawang.

Below.
Seow Aik Guan, Managing Director of Mapei Malaysia Sdn Bhd.



producers enhance the properties of cement. Since neighbouring countries are also becoming more aware of the real potential of these admixtures that allow production costs to be reduced while enhancing the final product, Mapei Malaysia Sdn Bhd will soon begin exporting these solutions abroad as well.

At the moment the Group's subsidiary in Malaysia, currently employing 50 members of staff, is involved in an ambitious project to introduce all Mapei's different products lines into the country, including materials for civil engineering works, underground constructions, waterproofing, sealing expansion joints, repairing and protecting concrete, structural strengthening, and the construction of industrial floors. Mapei Malaysia Sdn Bhd also plans to enhance its range of admixtures for concrete, mortars and binders for screeds, solutions for treating cracks, primers, and adhesion promoters.

PETRONAS TWIN TOWERS – KUALA LUMPUR

The installation of 50,000 m² of granite slabs and 20,000 m² of marble slabs within the towers and the shopping mall at their base was carried out with KERAFLOR+ISOLASTIC. A mixture of KERABOND+ISOLASTIC was used to lay 10,000 m² of mosaics. Screeds were prepared with MAPECEM. Grouting was carried out with ULTRACOLOR and KERACOLOR FF. MAPEFLEX PU21 was used to seal the expansion joints





Mapei Far East

The subsidiary in Singapore was the launch pad for other Asian and Pacific nations

Mapei Far East Pte Ltd was founded in Singapore in 1989 as the headquarters for Group's operations in East Asia and a base for developing business in this area.

It started off as a trading company composed of a 500 m² building holding offices and a warehouse. In 1995 a manufacturing plant covering 10,000 m² was opened in the industrial district of Tuas in the Jurong neighbourhood of western Singapore.

At the beginning of 2000, Mapei Far East Pte Ltd, which had already gained a solid reputation for its products for installing ceramics and stone materials, began manufacturing the building line, launching innovative technology into the Singapore market making it a leading player in the local chemical industry serving the building sector.

In 2003 the regional headquarters of the Mapei UTT (Underground Technology Team) Department were based in Singapore to provide local clients with an excellent technical support service and cutting-

edge products for underground building projects. The regional base for the Cement Additives Division was set up in 2006 to strongly promote Mapei products in the region. In September 2010 the department working on this line was strengthened through the creation of a four-man team in charge of technical and commercial operations. In early 2011, the flooring business was also consolidated on a regional basis with the appointment of a dedicated Regional Manager.

The real boom in the building sector in Singapore has allowed Mapei to help construct such prestigious projects as the Marina Bay Sands Resort (see *Realtà Mapei International* n. 33), terminals 1, 2 and 3 of Changi airport, Malay Heritage Centre, Samsung Hub, Singapore Sports School, PSA Pasir Panjang terminal, high-speed underground railway lines, and the NUS Link Bridge.

From Singapore the Company then branched out into other Asian countries, where its innovative solutions and highly qualified technical service were much

Above. The Mapei Far East Pte Ltd manufacturing plant in Singapore.

Below. Chua Kok Leong, Managing Director of Mapei Far East Pte Ltd.



appreciated. Based on this it was decided to create the other Mapei subsidiaries mentioned in these articles.

In the coming years Mapei Far East Pte Ltd will be able to count on a local building-construction market worth over 11 billion Euros. This means the Singapore subsidiary can be expected to carry on growing at the same rate as this market, so local customers will continue to treat Mapei, as underlined in one of the slogans recently used, as "one-stop partner for construction needs from start to finish."

Founded in
1989

Headquarters, trade offices,
1 manufacturing plant and
1 R&D laboratory

67 Staff



Projects in Singapore



MARINA BAY SANDS RESORT AND ARTSCIENCE MUSEUM

This mega-resort hosts a luxury hotel, an enormous sky-garden, various restaurants, shops, theatres, a casino, a night club, a museum and ample parking space. Mapei supplied numerous products to waterproof the substrates (MAPELASTIC) and to lay ceramic and stone floor and wall coverings in the hotel (GRANIRAPID, ELASTORAPID, KERACOLOR SF, KERAFLEX, KERAFLEX MAXI S1 and KERAPOXY) and in the casino and shopping areas, as well as products to carry out structural strengthening to the walls and ceilings in various areas of the hotel and to the foundations (ADESILEX PG2 SP, EPOJET LV, MAPEFER, MAPEGROUT THIXOTROPIC, MAPEFILL SP, PLANICRETE SP and RESFOAM 1 KM).

The new ArtScience museum, located in the Marina Bay Sands resort (right, in the photo), was opened at the beginning of 2011. Designed by the architect Moshe Safdie and dedicated to the ArtScience movement, the museum hosts international exhibitions in the 21 galleries distributed over four floors, in a building with the form of a lotus blossom. Mapei ELASTORAPID adhesive was used to bond the granite floors in the entrance hall of the museum.

RESORTS WORLD AT SENTOSA

As with Marina Bay, this enormous poly-functional complex offers visitors a casino, a theatre, a museum, numerous shops, restaurants, 6 luxury hotels and a theme park. A number of Mapei products (GRANIRAPID, KERAFLEX, ADESILEX P10, KERACOLOR SF, ISOLASTIC 50, KERACOLOR FF, KERACRETE, PLANICRETE 50, ULTRACOLOR PLUS, KERACOLOR GG, FUGOLASTIC and ELASTORAPID) were used to lay the ceramic and stone floor and wall coverings in the shopping areas, hotels and casino and in various external areas, while PLANIGROUT 300 SP was used to upgrade the foundation columns of the resort.



PASIR PANJANG TERMINAL, PORT OF SINGAPORE

During the expansion work carried out at the terminal, which is located in the busy port of Singapore, PLANIGROUT 300 SP epoxy mortar was applied along the tracks of the crane rail in the dockyard, while PRIMER PU60 and MAPEFLEX PU50 SL were used to consolidate and fill the joints of the concrete surface of the stacking yard.



Mapei China Ltd.
Hong Kong

Founded in
2000

Headquarters

12 Staff



1

Mapei in China: Hong Kong, Shanghai and Guangzhou

Three subsidiaries serving
an "explosive" economy



Above. Geoff Bradley,
Managing Director
of Mapei China Ltd.
(Hong Kong).



Above. Patrick Kok,
Managing Director of
the Group's subsidiaries
in mainland China.

Mapei has two manufacturing plants, several offices and three subsidiaries in China: the first is located in the Hong Kong Special Administrative Region, which used to be a British colony but was returned to the People's Republic of China in 1997; the second is located in Guangzhou (Canton) in the south-east of continental China; the third has its headquarters in the metropolis of Shanghai along the east coast.

Hong Kong: Mapei China Ltd.

Hong Kong is where Mapei began distributing its products on the Chinese market in 2000 through an independent distributor, and it is also where Mapei China Ltd. was founded in 2004, the Group's first Chinese subsidiary, whose mission was to promote Mapei products in the markets of Hong Kong and Macau. The subsidiary is equipped with offices, warehouse and 12 highly qualified technical and commercial staff to achieve this goal.

The Company supplies materials for buildings, installing ceramics and stone materials, waterproofing, underground constructions and wall coatings, contributing to prestigious projects such as the construction of Ocean Park aquarium, "The Hermitage" housing complex, the new local branch of Barclays Bank, the Venetian Macau Resort & Hotel, the Four Seasons Hotel, and One Central Macau housing, shopping and hotel complex.

To keep up with the boom in infrastructures in Hong Kong, Mapei China Ltd. recently extended its range of operations and internal resources and will continue to do



2

Mapei Construction Materials (Guangzhou)

Founded in **2005**

Headquarters, trade offices,
1 R&D laboratory,
1 manufacturing plant

98 Staff

so, in line with the Group's ambitious development plans for this part of the world.

Canton: Mapei Construction Materials (Guangzhou) Co Ltd

Mapei Construction Materials (Guangzhou) Co Ltd. was set up in Canton in 2005 after taking over a local manufacturer of building materials. The Company has 98 staff, head office in the city centre, and a manufacturing plant covering over 10,000 m² in Conghua (a district of Canton) that specializes in manufacturing adhesives and grouts for ceramics and stone materials, as well as leveling, smoothing and waterproofing compounds, etc. The manufacturing processes used here, involving over 60 members of staff, are in accordance with Chinese standards and guarantee all the materials have excellent mechanical properties.

Shanghai: Mapei Construction Materials (Shanghai) Co Ltd.

Mapei Construction Materials (Shanghai) Co Ltd. began operating in 2006 in the district of New Pudong in Shanghai with a manufacturing plant covering over 18,000 m². It manufactures admixtures for concrete, grinding aids, and underground construction materials, and has overall annual production of 50,000 tons. Thanks to its careful quality control procedures, Mapei Shanghai, which now employs 58 staff, won the annual "Quality Assurance and Integrity Cup" every year from 2007 to 2010. This prize was awarded by the Professional Committee for Admixtures for Concrete of the Shanghai Association for the concrete industry, which, every year, selects the plants manufacturing



3

Mapei Construction Materials (Shanghai)

Founded in **2006**

Headquarters, trade offices,
1 R&D laboratory,
1 manufacturing plant

58 Staff

Photo 1. The building hosting the offices of Mapei China Ltd. in Kowloon, in the Hong Kong Special Administrative Region.

Photo 2. The manufacturing plant of Mapei Construction Materials Co Ltd. (Guangzhou) is located in Conghua, Guangzhou.

Photo 3. The manufacturing plant of Mapei Construction Materials Co Ltd. (Shanghai) is located in the New Pudong district of Shanghai.

the best admixtures using the best production processes. Thanks to its powerful brand name, Mapei soon won the confidence of the Chinese market: its products have been chosen to construct such important works as bridges, railway lines, aqueducts, dams (first and foremost the Three Gorges Dam, see *Realtà Mapei International* n. 20) and lots of commercial and residential complexes, such as the Shanghai Finance Centre and Guangzhou Finance Centre.

The Company has made vital contributions to the construction of buildings for hosting international events in China, like for instance the stadiums and sports arenas used for the 2008 Beijing Olympics (see *Realtà Mapei International* n. 26) and the Italian Pavilion at the 2010 Shanghai Expo (see *Realtà Mapei International* n. 31).

The waterproofing membranes designed by Polyglass, one of the Group's subsidiaries, have already achieved great success in the Chinese market.

After completing a new training centre, showroom and warehouse in Guangzhou, Mapei also

opened new offices in Shanghai in November 2011.

In future Mapei plans to introduce new production lines in China and open new manufacturing plants and offices in strategic areas of a country with such a promising economy as China, whose GDP grew by 10.3% in 2010. The Chinese Government will be setting under way its 12th five-year plan in 2012, in order to guarantee stable economic growth. The plan envisages constant improvements in infrastructures and the construction of residential and commercial centres in both the most developed and developing areas. Public projects like this, along with a rise in the quality of life for its inhabitants and their growing interest in foreign technology, open up the way for using innovative building systems like those offered by Mapei. The depletion of natural resources and rise in their cost also encourage the use of supplementary products, such as grinding aids.

It's obvious, then, that Mapei has everything required to achieve enduring success in China.

Projects in China

THREE GORGES DAM - YICHANG

This ambitious project was started in 1993, leading to the completion of a 2309,47 m long dam in 2009. Mapei contributed to its building by supplying innovative technologies and products, such as MAPEFLUID X404 admixture, which was used to prepare the concrete for the dam's filling channels.



THE YONG-TAI-WEN EXPRESS RAILWAY LINE - TAIZHOU

Mapei super-plasticisers DYNAMON SR3 and DYNAMON SX-C were added to the concrete used for various structures along the Taizhou section of the Yong-Tai-Wen railway line, which connects the cities of Ningbo, Taizhou and Wenzhou on the east coast of China.

The section near to Taizhou is a high-risk area for typhoons, and so the choice of these admixtures may be explained by the mechanical properties required for the concrete, and its capacity to resist in such difficult climatic conditions.

GUANGDONG OLYMPIC AQUATICS CENTRE - GUANGZHOU

This complex, built to host competitions for various aquatic events during the 2010 Asian Games, includes 3 swimming pools and holds over 4,440 spectators. In the training, diving and swimming pools, the ceramic tiles were bonded to the surfaces using KERACRETE+KERACRETE POWDER and the joints were grouted with KERACOLOR GG + FUGOLASTIC.



SCIENCE CENTRE - MACAU

This complex, dedicated to science and technology, was completed in 2009. It covers an area of 20,000 m², and includes an exhibition centre, a planetarium and a convention centre. The ceilings and walls in the atrium, and the walls of the spiral walkway which connects two galleries had been damaged by mould. This damage was repaired in 2011 using SILANCOLOR CLEANER PLUS to clean the surfaces, SILANCOLOR PRIMER PLUS to protect them against the spread of new mould and SILANCOLOR PAINT PLUS for a decorative, protective final coating.



WOMEN HOCKEY STADIUM - ERDOS

In the city of Erdos, one of the main economic centres in Inner Mongolia, hockey is one of the most popular sports. To guarantee suitable surroundings for training sessions and hockey matches, a hockey stadium was built in 2009, with synthetic grass pitches laid using ULTRABOND TURF PU 2K two-component polyurethane adhesive.





OCEAN PARK - HONG KONG

This theme park, which has already attracted 95 million visitors in 34 years, includes a large animal park, a marine park and an oceanarium. Extension work was initiated in 2006, and upon completion of the work in 2012, there will be 70 new attractions, three new hotels and a new internal transport network. One of the new attractions is called Aqua City, a dedicated area which will host numerous marine species. The following Mapei products were used to lay ceramic, mosaic and natural stone in various attractions: ADESILEX P9, ADESILEX P10, ISOLASTIC, KERACOLOR GG, KERACOLOR FF, KERACOLOR SF, KERACRETE SYSTEM, KERALASTIC T, KERAPOXY, MAPELASTIC, PULICOL and ULTRACOLOR PLUS.



XIAOPING ISLAND - DALIAN

A residential and entertainment complex has been built in the city of Dalian, on the Xiaoping island, a holiday resort on the north-east coast of China. It includes luxury European-style apartments, a number of hotels, a yacht bay with mooring space for 1,000 sailboats, clubs, swimming pools, a shopping centre, etc. Mapei's contribution to this complex included solutions for the preparation (PLANICRETE SP) and waterproofing (K12 FLEXIBLE WATERPROOFING COATING) of the substrates, and for laying ceramic tiles and mosaic (KERACRETE, KERABOND T+ISOLASTIC, KERACOLOR FF, KERACOLOR GG, FUGOLASTIC and MAPESIL AC), especially in the swimming pools in the private villas and in the Yacht Bay club, as well as in the fountains situated in the central piazza open to tourists.

SHANGHAI WORLD FINANCIAL CENTER - SHANGHAI

The new skyscraper which houses the centre, in the form of a bottle-opener, with a height of 492 m, is the second-tallest building in the world. It has offices, hotels, conference rooms, shopping centres and observation desks. KERAFLEX adhesive was used to lay ceramic floor and wall coverings on various floors of the building. The joints were grouted with KERACOLOR.



BRIDGES ALONG THE YALU HIGHWAY - YA' AN

The Yalu highway near to the city of Ya' an in the Sichuan province stretches for approximately 240 km, and is just one of the seven highways which will converge on Beijing once the "7918 Network" project has been completed. Mapei's modified acrylic superplasticisers DYNAMON SX-C18 and DYNAMON SP1 were used to make high-strength concrete employed in the construction of various structural elements for the Labajin, Heishigou, Tianpingzi n. 1 e Tianpingzi n. 2 bridges, located along the C4 section of the highway.



Mapei Vietnam

Dazzling growth figures for the Mapei's subsidiary in one of the most promising countries in Asia

Mapei Vietnam has a lightning-fast yet enduring success story. The subsidiary, which was initially set up in the capital Hanoi as a representative office, quickly and steadily broke into the local market, very rapidly becoming one of the leading manufacturers of chemicals in the building industry in Vietnam and extending its scope to encompass other countries in Indochina.

In 2005 it started operating under the name of Mapei Vietnam Company Ltd., opening a number of business offices in the centre, north and south of the country. To reduce logistics costs and meet the demands of the local market, a manufacturing plant was opened in the province of Quang Nam in 2006, in the central area of Vietnam. The modern plant engineering soon allowed the subsidiary to extend its range of products to include not just adhesives and grouts for ceramics and natural stones, but also waterproofers, admixtures for concrete, grinding aids, mortars for concrete repair, and underground construction products.

The subsidiary now has 60 highly qualified members of staff, whose efficient work has certainly contributed down the years to the constant rise in sales (turnover increased by 897% from 2006 to 2010), strengthening the brand and supplying products and technology for important building operations, such as those that have led to the construction of five-star hotels, airports, manufacturing plants, tunnels and housing complexes.

In the north of the country it is worth mentioning the renovation of Hilton Opera Hotel, the construction of the tallest building in Vietnam inside the Keangnam multipurpose centre and, in the central part of the country, the construction of the longest cable-stayed bridge in Vietnam, Thuan Phuoc Bridge, Danang international airport, Danang Administrative Centre and A Luoi Hydroelectric Power Station. In the south of the country Mapei's references include Tan Son Nhat airport, the biggest in Vietnam, and East-West Avenue connecting the city of Ho Chi Minh to the surrounding economic zones.

Mapei Vietnam's growth is backed up by marketing and training operations: the subsidiary was the Silver Sponsor for the 2008 edition of the international conference organised by the Asian Concrete Federation (ACF) and Vietnamese Concrete Association (VCA) entitled "Sustainable Concrete Technology and Structures in Local Climate and Environment Conditions" and supported the "Tunnel Construction in Soft Soil" workshop in the same year. Mapei Vietnam sponsored the 22nd edition of the Asian Federation of Concrete Manufacturers Symposium, which was attended by over 500 representatives from various Asian countries during which Mapei technicians spoke about the eco-sustainable technology used in the concrete industry.

Above.
Mapei Vietnam's manufacturing plant in the province of Quang Nam in Central Vietnam.

Below.
Pham Thi Thai Mai, Managing Director of Mapei Vietnam.



Mapei Vietnam also organises lots of training seminars in various different cities and has been taking part on an annual basis in Vietbuild since 2008, the leading trade fair in the Vietnam construction industry. The subsidiary is also involved in social and cultural activities, such as donations to patients at the Hanoi Tumour Centre, helping inhabitants in the Quang Nam region that was struck by a typhoon, and sponsoring the concert by the Italian musician Giovanni Sollima held at Hanoi Opera House in 2010 and the celebration of the 150th anniversary of the unification of Italy at the Italian embassy in Hanoi.

There are some very promising signs for the Vietnam economy over coming years, as demonstrated by the fact that at the beginning of 2011 Citigroup praised Vietnam as one of the 11 most "attractive" growing nations, with the number of foreign visitors also booming. There is also a great demand for building materials and technology for constructing public buildings and infrastructures, because the local government wants to transform Vietnam into a completely industrialised and modern country by 2020, actually investing 112 billion Euros. The construction industry accounts for 2.36% of the GDP, having risen by over 5% during the first quarter of 2011.

Nevertheless, various factors make the socio-economic situation in Vietnam unstable: the international financial turndown, high inflation, the rapid increase in the price of construction materials, the rise in interest rates, and the trade deficit etc. Against this kind of backdrop, the technology and products of a solid and reliable company like Mapei have an even greater chance of success.

Founded in
2003

Headquarters, trade offices,
1 manufacturing plant and
1 Quality Control laboratory

60 Staff



Projects in Vietnam



DANANG SPORT CENTRE

In the important economical, touristic and cultural centre of Danang, 2010 saw completion of the construction of a large sports centre which, on a surface area of 94,000 m², hosted the Vietnamese sports conference held the same year. The complex has equipment and pitches for five-a-side football, volleyball, basketball, badminton, tennis and handball. Mapei contributed to the construction of the complex by supplying admixtures for the concrete (MAPEPLAST R14 SP, MAPEFLUID N100 SP and MAPEFLUID R104) and products for waterproofing and finishing the floors (MAPETHENE TA and MAPECOAT I 620 W).

ALUOI HYDRO-ELECTRIC POWER PLANT

To exploit the energy from the dense network of water courses in Vietnam, in 2005 the Vietnamese government officially authorised the construction of a hydro-electric power station on the River A Sap in Aloi, in central Vietnam. Mapei admixtures MAPEQUICK AFK 888, MAPEFLUID N100 SP, EXPANFLUID and MAPEPLAST R14 SP were used in the concrete for the tunnel for the power station.



DANANG INTERNATIONAL AIRPORT

Danang airport, located in central Vietnam, is the third most important airport in the country, and was built by the French in 1940. The airport was extended in 2008 with the construction of a new terminal of more than 14,400 m². Various Mapei admixtures were supplied for the extension work: DYNAMON EASY 11 and MAPEFLUID N100 SP for the concrete used for the bases, foundations and roof, while for the transport network, apart from these products, MAPEFLUID R104 and EXPANFLUID were also used.



Founded in
2011

Headquarters, 2 warehouses
and trade offices

Staff
19



Mapei Construction Products India

The Group's business enterprises in the Indian subcontinent begin under the very best of omens with its new subsidiary

India has one of the fastest growing economies in the world and its GDP has grown by 7-8% over the last few years: a trend that is expected to continue over coming years. The building industry is also flourishing in this country and is estimated as being worth a total of over 310 million Euros in 2011. It is also expected to grow at an overall annual rate of 20% over the next two years.

Mapei could not afford to overlook the opportunities offered by a market like this, so on 4th March 2011 it set up a subsidiary called Mapei Construction Products

Above. The headquarters of Mapei Construction Products India Pvt Ltd in Bangalore.

Below. Abhijit Dutta, Managing Director of Mapei Construction Products India Pvt Ltd.



India Pvt Ltd in Bangalore, in the state of Karnataka, in the south of the country.

At the moment the staff of the Mapei subsidiary in India counts about 19 people, with its sales personnel strategically located in various areas of the country. The staff, however, is growing all the time, since the Company is currently hiring new people in order to provide an increasingly efficient service for customers in every area of the country.

There is already a Mapei products warehouse in an industrial zone in Bangalore, and a manufacturing plant primarily focusing on manu-

facturing admixtures for concrete will soon be brought into operation. Mapei production in India is intended to meet the needs of the home market as regards admixtures for concrete (primarily polycarboxylate admixtures), materials for underground constructions, grinding aids and, later on, materials for installing ceramics and stone materials. In the medium term, the Company also aims to break onto the local market for building products, including solutions for structural strengthening, polyurethane products, anti-static floorings, etc.

The excellence of Mapei solutions has already been noted in India, as is shown by the use of the Company's products for constructing such important projects as Marriott Hotel in Pune in the federal state of Maharashtra in the west of the country, the new wing of Mumbai international airport in Bombay, and the Ferrari Shop in New Delhi as well as ground stabilizing operations and rock injections using polyurethane systems.

MARIOTT HOTEL - PUNE

Marriott Hotel is one of the most famous hotel chains in the world, with more than 3,500 establishments in 67 different countries. The Pune Marriott Hotel & Convention Centre is the 50th hotel of this chain and was recently opened in the city of Pune in western India. The hotel, which has been awarded LEED Gold certification, encloses the largest conference room in India. The newly-founded Mapei India Construction Products India Pvt Ltd was involved in this project, supplying technical assistance and numerous products. For the mixes to form the screeds and renders, PLANICRETE synthetic latex was added to improve the adhesion of the cementitious mortar.

KERAFLOOR cementitious adhesive was used to lay granite on the floors and marble on the walls, and the joints between the slabs of granite were grouted with ULTRACOLOR PLUS high-performance mortar. Glass mosaic was laid on the walls and floors of the bathrooms using ADESILEX P10 cementitious adhesive, while the bathrooms and swimming pools were waterproofed using MAPELASTIC SMART two-component, high-flexibility cementitious mortar.





Mapei Korea

The Group has taken over a manufacturing plant, a company and brands already operating on the South Korean market

In January 2011 the Mapei Group completed the acquisition of the Henkel company's operations for manufacturing adhesives and chemical products for building in South Korea, including the Ceresit and Thomsit labels.

This acquisition has resulted in the creation of Mapei Korea, the Group's latest subsidiary that now employs 28 staff with central offices in Seoul and a manufacturing plant of approximately 12,244 m² in Chungcheongbuk-do, a city located approximately 100 kilometres from the capital. Mapei Korea will carry on manufacturing building materials under the Ceresit and Thomsit labels for a number

Above. The Mapei Korea manufacturing plant is located in Chungcheongbuk-do, approximately 100 km from Seoul.

Below. Titus Song, Managing Director of Mapei Korea.



of years, backing them up with a wide range of Mapei products.

The Group made this acquisition in order to guarantee a powerful operating presence in South Korea, one of the most technologically cutting-edge countries on the world stage and, at the same time, in order to set up a manufacturing base in the northern area of the Pacific. This acquisition is part of a programme of investments (worth over 200 million Euros) that Mapei recently worked out for the Asia Pacific (including Oceania) region. The plan is managed by Mapei Far East, the Company's headquarters in Singapore, under the supervision of the Asia Pacific Director Marcel Smit.

With 48 million inhabitants and a GDP which is expected to rise by 4.3% in 2011, South Korea offers extremely interesting growth possibilities for the Company.

At the moment the subsidiary's production is focused on water-proofers, mortars for repairing concrete, and cementitious floors. In the short term, the production lines will be extended to encompass products for installing ceramics, stone and resilient materials, grinding aids and various other building solutions.

Mapei is confident it will be appreciated by a market that has already shown it is extremely interested in eco-sustainable, high-quality products that help improve and enhance urban areas.

Founded in
2011

Headquarters, trade offices
1 manufacturing plant and
1 R&D laboratory

28 Staff

JAMSIL OLYMPIC STADIUM - SEOUL

The rubber athletic track in this stadium, built in 1988 for the Olympic Games and the tenth edition of the Asian Games, was laid using ADESILEX G19 adhesive.





Mapei Australia

A green and sporty subsidiary in the land of kangaroos

Mapei's business operations began in Australia in 1993, when it opened a subsidiary with its own sales office in the city of Gold Coast, about 70 km from Brisbane in the east of the country, designed to distribute its products for installing ceramic tiles, stone and resilient materials. The local market was immediately impressed by these products, encouraging the Company to make new investments including the construction of a modern manufacturing plant in Brisbane for producing powder materials, just in time to supply cutting-edge products for building operations on several sports arenas and facilities constructed for the 2000 Sydney Olympic Games. Ever since then production has never stopped, now reaching 65,000 tons-a-year, partly thanks to recently completed extension and modernisation work on the entire plant.

Mapei Australia, which now employs 38 staff, is to the very fore in terms of commitment to the environment, one of the keystones of Mapei's corporate philosophy: it actually supplies its customers with numerous eco-sustainable solutions that neither harm people's health nor the environment and all conform to the most stringent national and international standards in a country like Australia, which is particularly

keen to safeguard its unique natural heritage.

The Group's commitment to sport is clearly echoed in Australia: Mapei actually sponsored the 2010 World Cycling Championships held in the cities of Melbourne and Geelong (see *Realtà Mapei International* n. 33). The country's contribution to Australian sport is also highlighted by its working partnership with the Australian Institute of Sport (AIS) and the contribution provided to constructing such important sports facilities as the Melbourne Cricket Ground.

The quality of its products, the expertise of its technicians, and the excellent assistance it provides architects, building companies, designers and distributors, mean that Mapei products have been chosen for lots of Australian

Above.

The Mapei Australia manufacturing plant is located in Brisbane in the east of the country.

Below. Les Taylor, Managing Director of Mapei Australia.



Below. Mapei Australia's headquarters offices.



Founded in
1993

Headquarters,
1 manufacturing plant and
1 Quality Control laboratory

38 Staff

building projects, not only in the field of sports. These include the renovation of the famous Sydney Opera House and the extensions of the international airports in the Australian cities of Melbourne, Brisbane, Sydney, Adelaide and Cairns.

Mapei Australia can then boast a fine reputation within the nation's building industry and, having already planned to introduce new product lines (i.e. building solutions and admixtures for concrete), it can expect even better results in the near future.

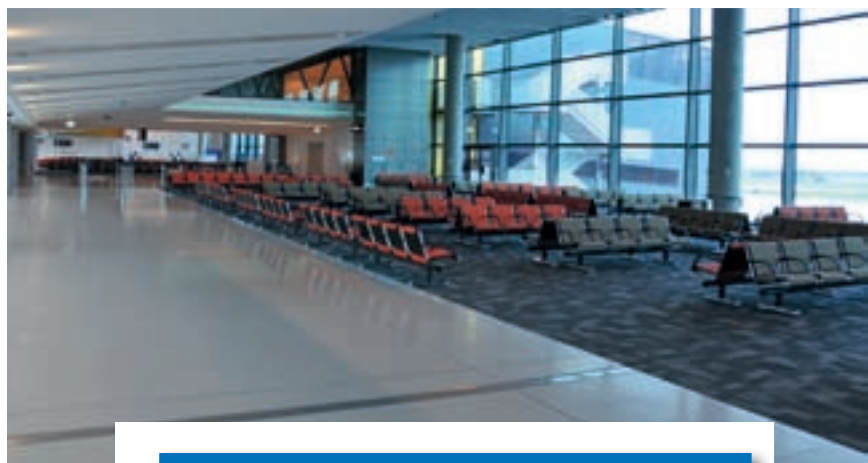


Projects in Australia



THE HILTON SURFERS PARADISE HOTEL - GOLD COAST

The Hilton Surfers Paradise Hotel is located in Surfers Paradise on the east coast of Australia, renowned for its beaches and shops. The hotel complex, designed by the Buchan Group design studio, includes two towers which house the rooms and suites, a large boutique shopping mall and a large car-park. Mapei supplied various solutions for waterproofing the substrates and laying the ceramic floor and wall coverings in the complex, such as KERABOND PLUS, KERAFLEX, GRANIRAPID, TIXOBOND FINE S1, MAPELASTIC SMART, ULTRACOLOR PLUS and KERACOLOR FF.

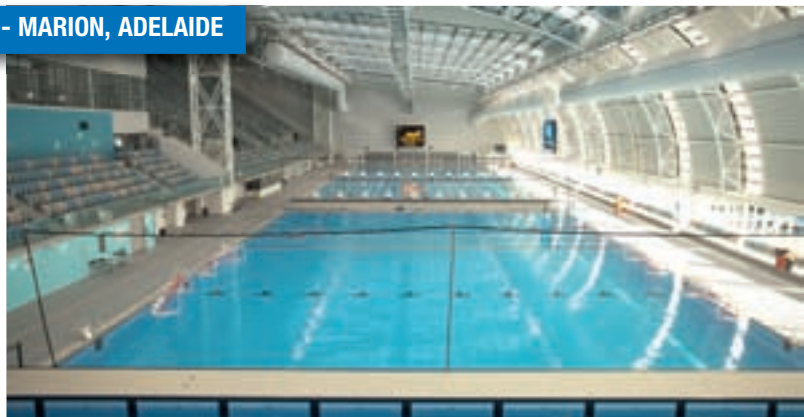


MELBOURNE INTERNATIONAL AIRPORT

In 2007, extension work was carried out on the international terminal at Melbourne airport, built in 1970. Work included extending the terminal by 25,000 m², the installation of new baggage-handling systems, new waiting lounges, new spaces dedicated to shopping and refreshments and the construction of 5 new boarding gates. In order to allow the floor-layers to install the ceramic coverings more quickly, GRANIRAPID adhesive, KERACOLOR FF grout for joints and MAPESIL AC sealant for the expansion joints were selected for the work.

SA AQUATIC CENTRE & LEISURE & GP PLUS HEALTH CENTRE - MARION, ADELAIDE

This enormous complex, dedicated to water-based remedial treatments and water sports, includes numerous swimming pools for training and international meets, as well as pools with slides and diving boards for relaxation and fun. Mapei products played an important role in the construction of this complex, such as for waterproofing (MAPEGUM WPS and MAPELASTIC SMART) and preparation of the substrates (MAPEPRIM SP, PRIMER G and PLANICRETE SP), and for laying ceramic and mosaic in the swimming pools (KERALASTIC T, KERAPOXY DESIGN, KERABOND PLUS, ISOLASTIC 50, TIXOBOND FINE S1, GRANIRAPID, ULTRACOLOR PLUS and MAPESIL AC).



FACILITIES FOR SYDNEY 2000 OLYMPIC GAMES

In Sydney, for the first Olympic Games of the new millennium, a number of new structures were constructed with the emphasis on the use of eco-sustainable materials. This was one of the reasons Mapei products proved to be the most suitable for many of the sports complexes in the city, as well as for the transport infrastructures which were extended for the occasion, and for the buildings used to host the athletes. The structures involved in this enormous project included the Australia Stadium, the Olympic Aquatic Centre, the State Hockey Centre, the Sydney SuperDome, Sydney International Airport, the Lidcombe railway station and the MacQuarie Apartments.



Mapei New Zealand

The subsidiary operates on the country's two islands to best serve its customers needs in both the north and south

New Zealand is a country in the Pacific composed of two main islands called the South Island and North Island. Mapei New Zealand was set up in 2003, as a trading company operating in the city of Auckland in the North Island. Back then just four people worked on marketing and distributing Mapei products belonging to the line for installing ceramics and natural stones. A highly efficient network of retailers and agents was then created to supply customers in both the north and south of the country.

In 2004 the Company opened an office in Christchurch on the South Island that was also equipped with a warehouse. In Wellington, the capital of New Zealand, a Mapei salesman has been handling the southern part of North Island since 2003.

Mapei lines for installing resilient and textile materials and solutions for the building industry were subsequently launched onto the New Zealand market. After slowly

being introduced onto the market, the Company's technologically cutting-edge products won the confidence of New Zealand customers and soon took over increasingly large slices of the market.

The sector for concrete repair and structural strengthening using carbon and glass fibre materials is currently booming in particular, partly thanks to reconstruction work following the earthquake in Christchurch in February 2011. Mapei New Zealand has shown it meets this particular market needs by regularly supplying innovative solutions for this kind of work to all parts of the country.

Mapei New Zealand now has a staff of 15 people, whose main target is to increase sales and hit the Group's strategic targets.

From when it was first set up until now, Mapei New Zealand has contributed to high profile building projects, such as the renovation of Grafton Bridge in Auckland (see *Realtà Mapei International* n. 32), the construction of the new ter-

Above. The headquarters of Mapei New Zealand in Auckland.

Below. Murray Simpson, the Managing Director of Mapei New Zealand.



minal 1 of Christchurch Airport, Kawerau Falls luxury mega-resort, and the redevelopment of the public area of Aotea Square in downtown Auckland.

These works have allowed Mapei New Zealand to really stand out as a reliable and professional partner for the local building industry, certainly making it a benchmark for similar projects in future.

Founded in
2003

Headquarters and trade
offices

15 Staff

Projects in New Zealand

GRAFTON BRIDGE - AUCKLAND

In 2008, renovation work was carried out on this bridge which, since 1910, has connected the centre of the city of Auckland to the surrounding suburbs. Mapei supplied various innovative solutions to carry out structural strengthening (ADESILEX PG1, EPOJET LV, LAMPOSILEX, MAPEGROUT THIXOTROPIC, MAPEFER 1K and MAPEFILL GP) and applied an anti-carbonation coating (MAPELASTIC and WALLGARD GRAFFITI BARRIER).



AOTEA SQUARE - AUCKLAND

This square is located near Queen Street, the main shopping street in Auckland. It was built in 1979 and used down the years to host concerts, demonstrations, events, etc. In 2010 renovation works involved the installation of new red granite floors with KERABOND+ISOLASTIC.

Pre-cast concrete step slabs were also installed onto a concrete substrate in an area leading down to the adjacent Auckland Town Hall. PRIMER MF and QUARTZ 1.2 were used to prepare the substrates while the pre-cast steps were set into place with GRANIRAPID.

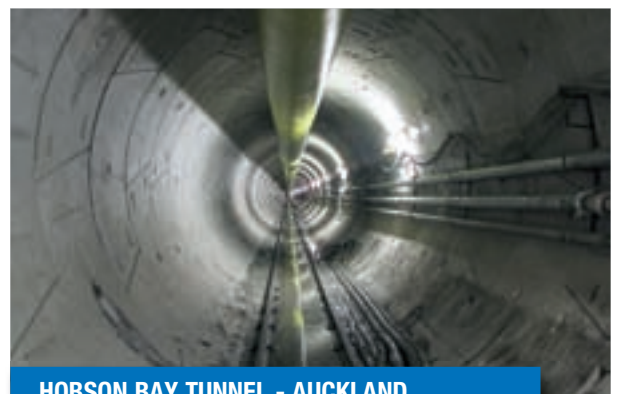
CHRISTCHURCH INTERNATIONAL AIRPORT

This airport represents one of the main gateways for the South Island and is the second largest in New Zealand. During the extension and modernisation work, various Mapei products were used, such as PRIMER G, GRANIRAPID WHITE, ULTRAPLAN ECO, ULTRACOLOR PLUS and MAPESIL AC to lay more than 12,000 m² of ceramic tiles in the check-in areas, the shopping concourse and the waiting lounge.



EDEN PARK - AUCKLAND

This enormous sports complex was recently renovated and extended for the 2011 Rugby World Cup. The stands were involved in this project, as well as the bathrooms, corporate boxes, hospitality areas, walkways and the showers and treatment areas for the teams and the match officials. Ceramic floor and wall coverings were laid using KERABOND PLUS + ISOLASTIC and KERAFLEX after treating the substrates with MAPECEM and PLANICRETE and waterproofing them with MAPELASTIC and MAPENET 150. The joints were grouted with ULTRACOLOR PLUS. MAPESIL AC was used to seal expansion joints. EPORIP, MAPEGROUT T60, KERABOND PLUS+ISOLASTIC NEAT, ULTRACOLOR PLUS and MAPESIL AC were used to renovate the stair treads in the public access ways.



HOBSON BAY TUNNEL - AUCKLAND

A 3.7 m diameter tunnel was dug out and a 36 m deep pumping station and two other drop shafts were constructed to replace the century-old sewers which cross Hobson Bay. Mapei took part in the project by supplying admixtures for the concrete (MAPEQUICK CBS, MAPETARD and DYNAMON SP1) and products for concrete repair (MAPEGROUT THIXOTROPIC and POLY FOAMER FP).

One Central Macau

One more luxury multifunctional complex was completed in Macau with Mapei products

The Macau Special Administration Region is located at the mouth of the Pearl River and facing the South China Sea in the east and west. Bordering on the Chinese province of Guangdong, it is 60 km southwest of Hong Kong and 145 km from Guangzhou. Today, it has a land area of 29.5 km² and an estimated population of 542,200.

This small area of land was under Portuguese rule from the beginning of the 16th century until December 1999, when Macau was handed back over to the People's Republic of China.

A Top-Level Multifunctional Complex

Macau is being praised as the "Las Vegas of China", due to its numerous entertainment facilities. It had been heightened with remarkable and spectacular building developments. One of the latest landmarks is the mixed-use development project One Central Macau.

Located at Nape District, the heart of Macau Peninsula, it offers unparalleled panoramic sea-view. One Central Macau covers a total of 262,000 m² ground floor area with a construction cost of over 376.6 million Euros.



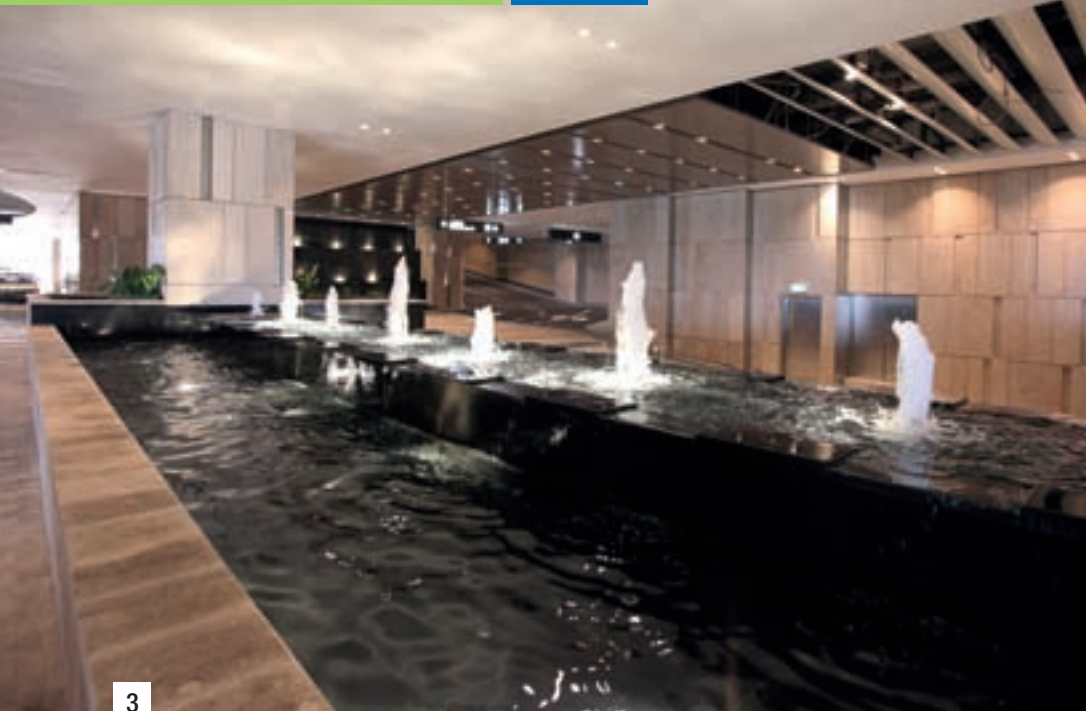
Above. Macau faces the South China Sea in the east and west, bordering on the Chinese province of Guangdong. Beside the islands of Taipa and Coloane, it encloses the Macau Peninsula, where the new complex One Central Macau is located.

Photo 1. One Central Macao encloses 7 residential buildings; a world-class hotel; a shopping centre; a 5-storey podium parking and a basement parking.

Photo 2. Natural stone walking ways and pavements in several outdoor areas were laid with KERABOND and KERAFLEX. Joints were grouted with KERACOLOR FF +FUGOLASTIC.







3

This project combines exclusive residences and serviced apartments in 7 buildings; a world-class hotel managed by The Mandarin Oriental Hotel Group; a 5-level club house hosting swimming pools, gardens and playgrounds for children; a 3-storey retail shopping mall complex with the world's leading luxury brands; a 5-storey podium parking; a 2-storey basement parking.

Mapei's Contribution

The developers aimed at offering a first-class and urban luxury lifestyle experience for the residents in One Central Macau. To

fulfill such aspiration, the complex had been planned and designed by world class companies in the industry such as Kohn Pedersen Fox Associates PC.

For the construction, only materials with high-quality and reliability were selected. The reputation of Mapei's products matched both requirements completely. Indeed, thanks to its Hong Kong subsidiary (Mapei China Ltd), Mapei had already gained a reputation in the local building industry and had already supplied products and technical assistance in prestigious projects such as the construction of Ocean Park, the new local

IN THE SPOTLIGHT

KERACOLOR GG

It is an improved (2) cementitious (C) grout (G) for joints of class CG2 complying with standard EN 13888. It is ideal for grouting interior and exterior floors and walls in all types of ceramic tiles (single fired, double fired, klinker, porcelain tiles, etc.), terracotta, facebrick and stone material (natural stone, marble, granite, agglomerates, etc.).



KERACOLOR GG is a mixture of cement, graded aggregates, synthetic resins, special additives and pigments. The following features are obtained when mixed with the right water ratio and used correctly: good compressive and flexural strength; good resistance to freeze/thaw cycles; good durability; good abrasion resistance; low shrinkage, good resistance to acids with pH > 3.

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

Photo 3.

TOPCEM PRONTO, NIVOPLAN+ PLANICRETE, MAPELASTIC, FIBREGLASS MESH (N.B. This product was superseded on several markets by MAPENET 150), MAPEBAND, KERACRETE+ KERACRETE POWDER, KERAPOXY, PULICOL and MAPESIL AC were used in the fountains and water features.

Photos 4, 5 and 6.

After preparing the substrates with TOPCEM PRONTO and NIVOPLAN+ PLANICRETE, the surfaces in the swimming pools were waterproofed with MAPELASTIC strengthened with FIBREGLASS MESH, and MAPEBAND tape for the corners; KERACRETE+ KERACRETE POWDER adhesive system was used to lay the ceramic mosaics while joints were grouted with KERAPOXY.



4



5



6

branch of Barclays Bank, as well as the Venetian Macau (see *Realtà Mapei International* n. 26) and the City of Dreams (see *Realtà Mapei International* n. 32) resorts and the Four Seasons hotel.

Mapei's waterproofing systems, ceramic and stone installation tiling systems, rendering and floor screeding solutions and other complementary products were adopted for different applications in this project which began in mid 2007 and were completed in January 2010.

Laying Stone Materials in Outdoor Areas

External areas of One Central Macau enclose a podium, covered walkways, landscape walk-

ways, a relaxation fountain court, a seating area at the club house and a residential garden. Marble and other natural stones slabs of different sizes (300 x 300 x 15 mm, 300 x 600 x 15 mm) were laid on the walkways and floorings with KERABOND and KERAFLEX cementitious adhesives, while KERACOLOR FF pre-blended, high-performance, polymer-modified cementitious mortar with water-repellent DropEffect® technology was used for grouting the joints. After laying and grouting, KERANET acid-based cleaning solution was used to clean the surfaces.



Photo 7. In the club house lobby and on the terraces of residential apartments porcelain tiles and natural stone slabs were laid on walls and floors with KERABOND, KERAFLEX and KERAFLEX MAXI (N.B. the latter was superseded on several markets by KERAFLEX MAXI S1). KERACOLOR FF, KERACOLOR GG and KERACOLOR SF, mixed with FUGOLASTIC, were used to grout the joints.

Treating Substrates and Laying Ceramics in the Water Features and Fountains

Mapei solutions were also used in the fountains and water display at podium and drive way area, as well as in the water display at the residential tower lobbies and in the water cascades at the gardens of the club house and residential gardens. For building the screeds TOPCEM PRONTO ready-to-use, controlled-shrinkage mortar was used, while NIVOPLAN smoothing mortar, mixed with PLANICRETE synthetic latex rubber, was used to level the substrates.

MAPELASTIC two-component, flexible cementitious mortar, strengthened with FIBREGLASS MESH (N.B. this product has been superseded on several markets by MAPENET 150), and MAPEBAND (used as both alkali-resistant rubber tape and as sealing gaskets)



were used to waterproof the surfaces.

KERACRETE+KERACRETE POWDER adhesive system was used to bond 600 x 600 x 15 mm stone slabs in the fountains and water features. Joints were grouted with KERAPOXY high-performance, anti-acid epoxy mortar. PULICOL (N.B the product has been superseded in several markets by PULICOL 2000) solvent gel was used for removing adhesive and grout residues from the laid surfaces.

Expansion joints were sealed with MAPESIL AC pure, anti-mould, acetic silicone sealant.

Waterproofing and Laying Ceramics in the Swimming Pools

The above-mentioned products (TOPCEM PRONTO, NIVOPLAN+PLANICRETE, MAPELASTIC+FIBREGLASS MESH, MAPEBAND, KERACRETE +KERACRETE POWDER,

KERAPOXY, PULICOL and MAPESIL AC) used for the water features were also supplied for preparing the substrates, waterproofing the surfaces, laying marble, natural stones and mosaics in the swimming pools located in the club house (a 50 m infinity pool, some indoor and outdoor Jacuzzi pools, some indoor & outdoor kid's pools, a padding/foot message pool) as well as for the private pools located at the top of some residential units.

Laying Ceramic Floor and Wall Coverings in the Apartments and in the Club House

45 x 95 x 8 mm ceramic tiles and 300 x 600 x 15 mm marble and natural stone slabs were laid on floors and walls in the club house lobby, on the external façade, in the kitchen and bathrooms, in the residential tower lobbies, on stairs, in service rooms, lifts, terraces, kitchens and bathrooms.

IN THE SPOTLIGHT

KERAFLEX MAXI S1

It is a deformable (S1), improved (2) slip resistant (T) cementitious adhesive (C) with extended open time (E) of class C2TE S1 according to EN 12004 standard. It is particularly suitable for interior and exterior bonding, up to 15 mm thick, on floor of ceramic tiles of every type and size on uneven substrates and renders; of stone materials, provided that they are not sensitive to moisture; for spot bonding of insulating materials in interior etc. Its Low Dust



technology allows the amount of dust emitted while mixing to be drastically reduced compared with standard cementitious Mapei adhesives, making the work area more comfortable and healthy for floor layers.

It features low viscosity, it is easily workable; it is highly thixotropic and can be applied on a vertical surface without sagging or letting even heavy and large tiles slip. It ensures perfect adherence to all materials normally used in building. It has a particularly extended open and adjustability time.

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



In the shopping mall numerous ceramic floorings were laid with KERAFLEX+ PLANICRETE SP.

For bonding these surfaces KERABOND, KERAFLEX and KERAFLEX MAXI (N.B. the latter was superseded on several markets by KERAFLEX MAXI S1) adhesives were used while joints were grouted with KERACOLOR FF, KERACOLOR GG and KERACOLOR SF cementitious grouts, mixed again with FUGOLASTIC.

300 x 300 x 8 mm porcelain tiles and 300 x 600 x 15 mm natural stone slabs were laid on floors and walls in the shopping mall and in some famous brand name shops, in the washrooms, in the toilettes and service areas, as well as in the corridors and walking areas.

The adhesive chosen for this application was KERAFLEX, mixed with PLANICRETE SP.

This latex formula was specially developed and is distributed on Far East markets by Mapei Far East, the Singaporean subsidiary of the Mapei Group.



TECHNICAL DATA

One Central Macau, Macau (People's Republic of China)
Designers: Wong & Tung International Ltd., Kohn Pedersen Fox Associates PC
Period of Construction: 2006-2010

Period of the Intervention: mid 2007 – January 2010
Intervention by Mapei: supplying products for waterproofing and treating substrates, laying ceramic and natural stone wall and floor coverings in several residential buildings,

external areas, in the club house and in the shopping mall
Client: Hong Kong Land Ltd., Shun Tak Holdings Ltd.
Contractor: Hip Hing Engineering (Macau) Co. Ltd.; iTop Construction Material & Engineering Co. Ltd.
Laying Company: Masterpoint, Yearfull, Sun Yu Chau, San Yiu Cheong
Laid Materials: marble, natural stones, ceramic tiles
Mapei Coordinators: Roger Kwan, Mapei China Ltd. (Hong Kong, PRC)

MAPEI PRODUCTS

The products mentioned in the article belong to the "Products for Ceramic Tiles and Stone Materials" and "Products for the Installation of Wooden Floors" ranges. The technical data sheets are available at the web site: www.mapei.com.

Mapei's adhesives for ceramics and stone materials conform to EN 12004 and have been awarded the CE mark in compliance with Annex ZA, standard EN 12004. Mapei grouts for ceramics and stone materials conform to EN 13888.

Almost all the Mapei products for laying floors and walls are also GEV-certified and have been awarded the EMICODE EC1 ("very low emission level of volatile organic compounds") mark by GEV. Mapei mortars for renders have been awarded the CE mark in compliance with EN 998. Mapei products for repairing and protecting concrete structures comply with EN 1504 standards. Mapei cementitious mortars and membranes used for waterproofing before installing ceramics comply with EN 14891 standard. Mapei sealants conform to ISO 11600 standard.

More than 150 Mapei products can contribute to obtain the LEED (Leadership in Energy and Environmental Design) certification.

Preparing the substrates and waterproofing

Fibreglass Mesh: alkali-resistant glass fibre mesh for reinforcing protective waterproofing layers, anti-fracture membranes and thermal insulation systems. N.B The product has been superseded in several markets by MAPENET 150.

Mapeband: alkali-resistant rubber tape with felt for cementitious waterproofing systems and liquid sheaths.

Mapelastix (CE EN 1504-2, coating (C), principles PI, MC and IR; EN 14891): two-component, flexible cementitious mortar for protecting and waterproofing concrete surfaces, balconies, terraces, bathrooms and swimming pools.

Nivoplan (CE EN 998-1, type GP, cat. CS IV): smoothing mortar for internal and external walls and ceilings for thicknesses from 2 to 30 mm.

Planicrete: synthetic latex rubber to improve adhesion and strength of cementitious mortars.

Topcem Pronto (CE EN 13813, CT-C30-F6 A1_m, EC1 R Plus): ready-to-use, normal-setting, controlled-shrinkage mortar for quick-drying (4 days) screeds.

Laying ceramic and stone material

Fugolastic: polymer liquid admixture for Keracolor FF, Keracolor GG and Keracolor SF.

Kerabond (CE EN 12004, C1, EC1 R Plus): cementitious adhesive for ceramic tiles.

Keracolor FF (CG2 WA, EC1 R Plus): pre-blended, high-performance, polymer-modified cementitious mortar with water-repellent DropEffect® technology for grouting joints up to 6 mm wide.

Keracolor GG (CG2 WA, EC1 R Plus): pre-blended, high-performance polymer-modified cementitious mortar for grouting joints 4 to 15 mm wide.

Keracolor SF (CG2 WA, EC1 R Plus): fine-grained, high-performance white cementitious mortar for grouting joints up to 4 mm wide.

Keracrete+Keracrete Powder (CE EN 12004, C2T, EC1 R Plus): two component adhesive system made of a ready to use mixture of sand and cement and a latex. This mixture forms a high-performance adhesive with no vertical slip and is suitable for ceramic tiles, glass mosaic and stone material.

Keraflex (CE EN 12004, C2TE, EC1 R Plus): high-performance cementitious adhesive with no vertical slip and extended open time for ceramic and stone tiles.

Keraflex Maxi (CE EN 12004, C2TE S1): high-performance deformable cementitious adhesive with no vertical slip, extended open time for ceramic tiles, particularly recommended for laying large porcelain and natural stone tiles.

N.B. The product was superseded on several markets by KERAFLEX MAXI S1.

Keranet: acid-based cleaning solution for ceramic tiles.
Kerapoxy (CE EN 12004, R2T, RG): two-component, high-performance, anti-acid epoxy mortar and adhesive with no vertical slip for laying and grouting ceramic tiles and stone material.

Mapesil AC (F-25-LM): pure, anti-mould, acetic silicone sealant for movements up to 25%.

Planicrete SP: synthetic latex rubber to improve adhesion and strength of cementitious mortar. N.B. This product was specially developed and is distributed on Far East markets by Mapei Far East.

Pulicol: solvent gel was used for removing adhesive and paint residuals from the laid surfaces. N.B. The product has been superseded in several markets by PULICOL 2000.

Made in Europe starts from a sustainable chemical industry

The General Assembly of Cefic highlighted this point

2011, the International Year of Chemistry, has hit its target by generating enthusiasm and encouraging a debate on the chemical industry. All the companies in this sector have been in the spotlight for the last year, and there has certainly been an increase in society's perception of the enormous importance that chemistry has in the life of each and every one of us.

As a result, people's expectations regarding sustainable development and the role of the chemical industry for the future of our planet have also increased.

These subjects, along with the theme of national and international norms and standards which regulate the sector, were the main items of discussion for industrialists from the chemicals sector from all over the world at the 2011 Annual General Assembly of Cefic (European Chemical Industry Council), held in Madrid (Spain) on the 29th and 30th of September.

For the record, the Cefic headquarters are based in Brussels and represents 29,000 European companies from the chemicals sector, and the President of the organisation since last year and up to 2012 is Mapei Group's CEO Giorgio Squinzi.

Cefic represents small, medium and large companies from the chemicals sector. They

give work to approximately 1.3 million people, and represent almost one third of the world's total production of chemicals. Cefic's mission is to help the European chemicals sector improve its performance and image through voluntary initiatives regarding health, safety and the environment and how to face up to the global challenges.

And it is by moving exactly in this direction that this year's General Assembly discussed three aspects which are particularly felt in the sector: innovation, sustainable development and the public opinion's perception of the chemical industry.

The Chemical Industry for a More Competitive Europe

"A strong policy from the European Union must contribute to kick-starting the European economy and improve the competitiveness of the chemical industry": this was the message launched at the Cefic Annual General Assembly by Giorgio Squinzi.

The message to this year's Assembly was echoed by Antonio Tajani – Vice-president of the European Commission for Industry and Entrepreneurship – who expressed his wish for an industrial policy founded on

the real economy, and which considers the chemical industry a driving force behind the concept of "Made in Europe".

There were a lot of expectations and worries for the future, also because of the less than encouraging signs regarding the European debt crisis. Even though the European chemical industry has handled the crisis better than many other sectors, the growth forecast for 2011 has been reduced to 2.5%, a full two percent lower than the June forecast. Not exactly a recession, but the signs certainly point to a slow-down in growth.

But it is the long-term forecast which is proving to be the most worrying, and the central position of the sector in Europe has been put at risk by the boom in Asia. The scenario for the next decades paints a gloomy picture: share of global production down from 24% to 13%, commercial activities down to zero or even "in the red" and the prospect of 400,000 jobs lost over the next few years.

"There are certainly things to be worried about – explained Giorgio Squinzi in his speech – especially if we consider what has happened in recent years: in 1999 Europe had a 32% share in global production, and today we have dropped by almost 10%. And while we have lost, China has grown from 6% to today's level of 22%".

"If the risk from Asia is now a certainty – said Squinzi to the delegates – this is no reason to give up, and Europe has the capacity to react. Only on the condition, however, that it adopts a common industrial policy, pushing towards more innovation, and re-launching new partnerships between public and private and the role of small and



Left. The speakers at the 2011 Cefic General Assembly. From left, Wolfgang Plischke, Vice-President of Cefic, Giorgio Squinzi, President of Cefic and CEO of the Mapei Group, and Hubert Mandery, Director General of Cefic.



Left. Giorgio Squinzi and Antonio Tajani, Vice-president of the European Commission for Industry and Entrepreneurship, during the press conference.

Below. One moment from the prize-giving ceremony for the European Responsible Care Awards 2011. One award went to the Union des Industries Chimiques, the association of French chemical companies, for the "L'art en la Matière" project (right), which involved a number of artists creating installations inspired by the chemical industry in various French cities.

medium companies. Amongst the priorities, I believe that first and foremost is "smarter", more intelligent regulation.

It has already taken an enormous amount of effort to implement the first part of the REACH (the European Union Regulation on Registration, Evaluation, Authorisation and Restriction of Chemical substances) protocols regarding the registration of materials, but a European study has calculated that there are a further 160 European directives and norms which interest the chemical industry. We are suffocated by rules, while other producing nations, such as the United States, have absolutely no intention of following this path".

Another important area where the chemical industry feels it is penalised is the asymmetric application of environmental regulations and regulations regarding sustainability.

Its most serious concerns are for the adoption of the 20/20/20 package, which has imposed on the European nations to reduce CO₂ emissions by 20%, to produce 20% of their energy from renewable sources and increase efficiency by 20%, and all this by 2020. "These rules – declared Squinzi – must be the same for everybody, but even within Europe itself there are completely different scenarios: in Denmark they have already reached the target thanks to eolic energy, while in Germany the closure of their nuclear plants is worrying for industries, in that they predict energy costs will rise by 25-30%. And in spite of such conditions, a number of European ministries would like to tighten up these standards even further. As far as I am concerned this is unrealistic if, as is happening, the rest of the world does not follow suit".

Squinzi declared that, nevertheless, we can make a virtue out of necessity, because "the industry in Europe must aim at increased growth with fewer resources. This could be a unique opportunity for the chemical industry, and our observers are expecting new discoveries precisely from us, a new stimulus to re-launch Europe".

Innovation is another priority for Cefic, a keystone for growth. The organisation has tried to discuss this subject more in depth

with politicians from the European Union, stating quite clearly that innovation must be one of the priorities in the balance sheets of the 27 member states and a target for financial aid from the European Union. The chemical industry feels it is ready to support the European Union in kicking off fruitful, efficient discussions between the private and public sectors, with projects which have their priority in developing themes such as raw materials, eco-sustainability, water efficiency, intelligent cities and all technology vital to the progress of life on the earth.

And in these terms, Squinzi maintained that "Cefic is heading for sustainability, innovation, product safety and competitiveness. And we want to demonstrate that sustainability and competitiveness are moving side by side".

There is increased dialogue between Cefic and the European Commission, with fre-

quent high-level meetings which have opened the path to regulate cooperation in a number of projects, such as qualifying technology and partnerships between the private and public sectors in the field of innovation.

In these terms, Antonio Tajani clearly expressed his support for the sector and pointed out that the chemical industry is "at the base of the industrial value chain, supplying innovation for the whole of European industry and is, therefore, an indispensable element for global competitiveness".

If Asia, as transpired at the Madrid summit, is destined to become the new heart of the world's chemical industry, then the European chemical industry is ready to play all its cards because, as Squinzi underlined during his conclusion: "we feel confident that, at the end, political choices will strengthen Europe, and it is Europe's competitiveness which will prevail".



2011 EUROPEAN RESPONSIBLE CARE AWARDS



The 2011 European Responsible Care Awards were presented during the Assembly. They are awarded every year by a jury of experts on behalf of Responsible Care, the global chemical industry's voluntary environmental, health and safety initiative to drive continuous improvement in performance. In the small and medium-sized companies category, the prize went to the Finnish company Akkuser for its Dry Technology process for recycling batteries and accumulators. In the large companies category, the prize went to the German company Evonik which, in collaboration with the Hassan II agronomy institute from Agadir in Morocco, has developed a special hydrogel successfully used in a reforestation programme for argan trees. The special award went to the Union des Industries Chimiques, the association of French chemical companies, for the "L'art en la Matière" project, which involved a number of artists creating installations inspired by the chemical industry in various French cities (see picture above, right).





53th Ufemat Annual Conference

An agenda for climate, energy and the environment

Copenhagen played host from the 15th to the 17th of September 2011 for the traditional Annual Ufemat (European Association of National Builders' Merchants Associations and Manufacturers) Conference, now at its 53rd edition.

Mapei, Structural Main Sponsor for this event, has always been close to the world of distributors of building materials, and is in the front line in motivating all those activities which strengthen their bond with the industry. The common objective is not only to ask ourselves how to improve relationships between industry and distributors, but also to formulate decisive proposals and create concrete solutions to tackle and overcome the challenges imposed by the global market.

A process of continuous modernisation, an absolute must which cannot be disregarded, especially if we want to get through the crisis that this market is currently going

through.

In the presence of representatives from sixteen European nations (Bulgaria, Germany, France, Hungary, Ireland, Luxembourg, Austria, Switzerland, Belgium, Denmark, Holland, Portugal, Slovakia, Switzerland, Great Britain and Italy), once again the Annual Ufemat Conference reached its objectives and helped strengthen bonds between the national federations present, by analysing and understanding the problems the market is currently having to face. On the 15th of September, on the eve of the Conference, the General Meeting of Ufemat welcome the Presidents and Directors of the European Association of National Builders' Merchants Associations and Manufacturers.

For the record, the President of Ufemat since last year has been Giuseppe Freri (President of Federcomated - the Italian Federation of Traders in Concrete, Brick and Building Materials), the first Italian to

cover this role.

Freri has pretty clear ideas on how the Association must react, and he stated quite clearly and decisively during his speech to the Meeting that: "Ufemat's activities must be characterised by incisive, efficient action towards governments and other organised groups, to whom we ask that either general guidelines are issued or that initiatives are implemented and shared by all parties which lead to a more clear interpretation of how companies are managed and their social responsibility".

Freri also highlighted in his speech the lines of action to follow and the way forward for Ufemat in the near future.

Firstly, membership of the Association should be opened to include all the countries within the European Union, an objective which must be reached as soon as possible. Then, starting from the assumption that the operations of builders' merchants are tightly bound by the quality and intensity of





Above. Group photo at the end of the conference: in the first row, right, Giorgio Squinzi with Giuseppe Freri, President of Ufemat. **Right.** Giorgio Squinzi receives the Ufemat Award from Marnix Van Hoe, Secretary General of Ufemat.

relationships developed with manufacturing companies, Freri underlined how there must be a better understanding between the two parts, not only from a logistics point of view, but also, and especially, in terms of product quality and the marketing strategies which are used to promote the products. He said: "Forming a work group, and involving the major European companies from our sector, could represent both a strengthening of our overall vision of the market, and also a significant growth in the value of the product".

Another important theme was the role which Ufemat could play in matters under European Union jurisdiction regarding the building materials distribution sector.

For Freri, another essential objective which Ufemat must follow is the institution of a direct communications channel with the general management of each single sector, and this must represent a key base element for open dialogue with the

European Commission.

And last, but certainly not in terms of importance, is the role of Ufemat in the fundamental sectors of innovation and renewable energy.

"We must form a work group which includes researchers and experts on the subject – declared Freri – to produce knowledge which can be transferred to the economies of our companies".

Building and the Environment

Friday the 16th of September was a day for analysis and reflection, with a Convention called "Climate. Energy. Environment. Sustainable Buildings and Future Cities".

A theme on the same track as the main inspirers of the Association, as underlined by Freri: "the value of Ufemat is measured by the contribution of ideas it supplies for running the most significant aspects of the construction chain, in terms of protecting the territory, the quality of materials, eco-sustainability and the use of energy, all subjects for which our organisation represents the interests of distribution companies".

The main speaker at the meeting was Connie Hedegaard, European Commissioner for the Climate Actions, who underlined how climate change not only has an impact on the environment, but also on the price of products due to prolonged periods of drought and flooding, which means that harvesting will no longer be carried out on a regular basis. Hedegaard also maintained that the problem of reducing the consumption of energy can no longer be delayed, and indicated how a proper life style and sustainable architecture are the guidelines for change, through the use of higher performance materials and a new approach to logistics models and transport.

In his speech entitled "New Sustainable Architecture", Professor Louis Becker – Design Director and associate of Henning Larsen Architects – maintained that sustainable architecture is an important theme for everything that involves the environment, but must also be interpreted as a way of re-launching the construction sector. Becker also believes that optimisation of the components and energy used for construction and the localised production of energy are the values to be taken into consideration to pursue a project of sustainability, which can in no way exclude the creativity of man.

"How Green Makes Money" was the theme developed by Karel Van Eevel, Member



of the Board of UEAPME, the employer's organization representing the interests of European crafts, trades and small and medium enterprises at EU level. Van Eevel took an in-depth look at the opportunities that may be created through a "green" economy, becoming consultants for designers and also a reference point on the subject for clients. Another important subject was the new requirements which distributors must also comply with from the 1st of July 2013, according to the "Construction Products Regulation" approved by the European Parliament at the start of the year, and which has introduced the "declaration of performance" for products. The speaker on behalf of the European Union was Vicente Leoz Argüelles, Head of the Construction Department of DG Enterprise and Industry at European Union's Commission, who illustrated the requirements which distributors of construction materials must satisfy each time they put a product onto the market.

The day ended with a speech which developed unique future scenarios. Holger Bech Nielsen – professor of the Theory of High Energy at the Niels Bohr Institute from the University of Copenhagen – broached the theme of cities and homes of the future, starting from the most important questions that life asks of us.

His speech, "Where Are We From and Where Are We Going?", rounded off the day of work, and at the same time opened up interesting ideas on the direction future civilisations are leading us.

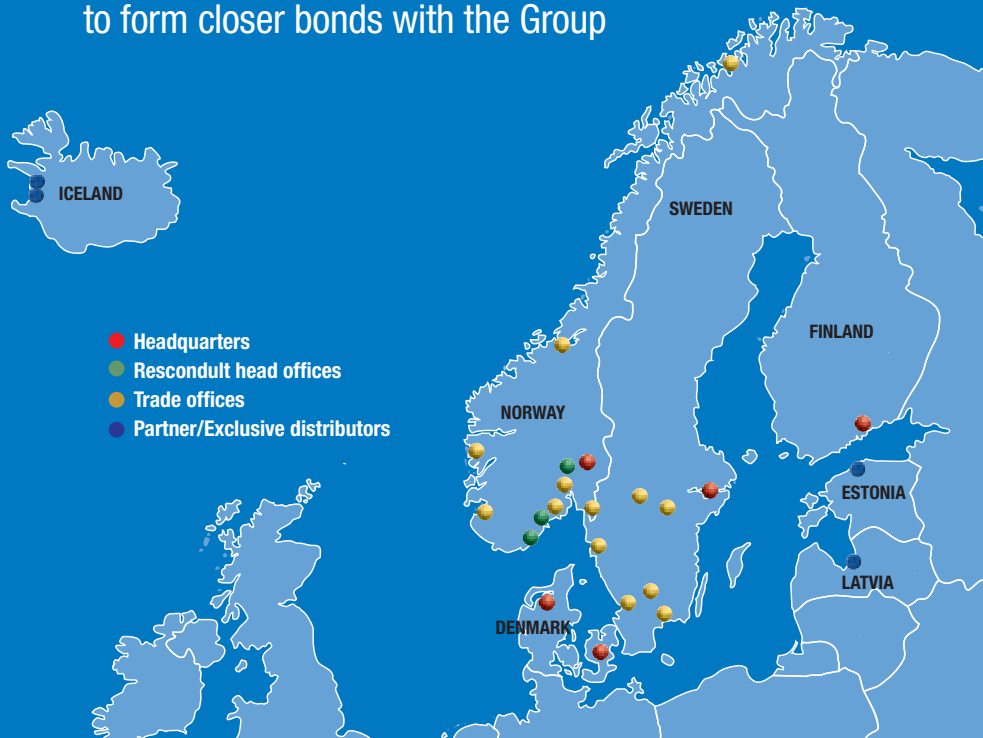
One of the outcomes of the congress is the increase in responsibility for companies operating in the construction chain, but there were also openings for new opportunities connected to the application of new technology and the use of eco-sustainable materials.

To round off the evening, Giuseppe Freri presented the Ufemat Award to Giorgio Squinzi, personality of the year, who has stood out for his commitment and the results obtained. When he received the award, Squinzi underlined the fundamental importance of the distribution system for the construction market.



Mapei by name ... and as a matter of fact

The Scandinavian subsidiaries change name to form closer bonds with the Group



1



2

Mapei Group's Scandinavian subsidiaries are changing name.

The Company's subsidiaries in countries on the Scandinavian peninsula have officially change name to fall more closely in line with the rest of the Group in terms of both image and brand: the Norwegian company Rescon Mapei AS is now called Mapei AS, the Swedish company Rescon Mapei AB is now Mapei AB and the Finnish company Rescon OY has been renamed Mapei OY. This turning point is the crowning moment in a success story that began over 10 years ago.

In the Beginning

There Was Rescon...

Mapei has been operating in northern European countries since 1999, when it first took over the Norwegian company Rescon, a well-established business based in Sagstua (not far from

Oslo) that was originally founded in 1976 and equipped with innovative technology, an excellent manufacturing output, and highly efficient corporate management system.

After being renamed Rescon Mapei AS in 2000, the new subsidiary continued supplying cutting-edge products for underwater constructions and concrete offshore oil drilling platforms, digging tunnels, building bridges, preparing substrates and laying various kinds of floorings (ceramic, resilient materials, wood, cementitious and resin).

This enabled it to gain increasing market shares in Nordic countries, especially as regards supplying plastic thermosetting compositions, special cementitious mortars and admixtures for concrete. Ever since then the Group has invested heavily in this new subsidiary helping bring about notable global growth in terms of turnover, facilities, human resources

The Mapei Group has three subsidiaries, a manufacturing plant, a R&D laboratory, several commercial branches and distributors in Scandinavian countries.

Photo 1. The Mapei AS headquarters in Sagstua (Norway) are equipped with modern manufacturing plant and R&D Laboratory.

Photo 2. Last September numerous clients of the Norwegian and Swedish subsidiaries were invited on a cruise that took them from Oslo to Copenhagen, giving them the chance to find out the reasons behind the name change.

and market quotas.

With this in mind, a new R&D laboratory was opened at the headquarters in Sagstua in October 2007, as well as a new plant for manufacturing shotcrete accelerators and another facility for manufacturing admixtures for concrete, as illustrated in detail in a number of articles published in *Realtà Mapei International* n. 25. The Group's investments also made it possible to reinforce this subsidiary's distribution operations, opening up centres in Denmark, Iceland, Estonia and Latvia.

The Company has boomed down the years, continuing to design exceptional products for handling "extreme" building issues (due to very peculiar weather and geological conditions in Nordic countries), and it now controls various subsidiaries in three countries: Mapei AS in Norway, Mapei AB in Sweden, Mapei OY in Finland and Resconsult, a company specialis-



3



4



5

ing in consultancy and carrying out special maintenance and construction operations on concrete structures.

... and Then There is Mapei

This change of name has allowed the Scandinavian subsidiaries to become much more closely tied to Mapei's corporate identity, while at the same time maintaining the trust and esteem of local clients. This is why a special communication campaign was devised in various stages.

In March 2011, business representatives from Scandinavian subsidiaries began to officially inform their customers about this new development.

During the UCI Road Cycling World Championships held in Copenhagen from 19th to 25th September, special events and communication projects were organised to officially inform the general public and customers about the change underway. More

specifically, on 23rd September numerous clients of the Norwegian and Swedish subsidiaries were invited on a cruise that took them from Oslo to Copenhagen, giving Mapei representatives the chance to explain in greater detail the reasons behind this change and also inform them all about the Group's latest news and developments.

The following day a number of Norwegian, Swedish and Danish clients took part in a conference held at Scandik Sydhavnen Hotel in Copenhagen, where once again the reasons for this policy were illustrated to them.

These clients then got the chance, on two separate days, to watch the UCI Road Cycling World Championships from the Mapei hospitality area, where they were assisted by staff from subsidiaries in Scandinavian countries, as outlined in the article that follows.

The final meeting was held at Bygg Reis Deg Trade Fair that

Photo 3. On 24th September a number of Norwegian, Swedish and Danish clients took part in a conference held in Copenhagen, during which the reasons for the change in name and logo were carefully explained.

Photo 4. Clients from Nordic countries go the chance to watch the UCI Road Cycling Championships from the Mapei hospitality area specially set up for the event.


Photo 5. Bygg Reis Deg Trade Fair, held from 19th to 23rd October in Oslo, provided a further opportunity to inform people about this important development concerning Mapei subsidiaries.

took place in Oslo from 19th to 23rd October.

During what is the most important Norwegian trade fair in the local building industry, the Norwegian subsidiary's communication operations at the exhibition focused on this important turning point, illustrated both by the graphics of the stand and a number of press releases and technical/promotional documentation handed out to visitors.

Ever since March the Scandinavian subsidiaries have also published articles and adverts in local newspapers and magazines to inform people about this new development.

A company newsletter has been set up with its own special graphics highlighting the Mapei trademark.

Other measures include making over the lorries for transporting goods to show off the Mapei logo and the replacing of road signs at all the subsidiaries facilities. 



1

Shotcrete Test Centre (STC)

In Norway a new Mapei laboratory is devoted to tests on shotcrete

STC is a test laboratory for sprayed concrete (also called "shotcrete") in full scale. It is unique of its kind, and located in Norway, 14 km from Sagstua, where Rescon Mapei AS (the Norwegian subsidiary of the Mapei Group) has its manufacturing plant, distribution centre, R&D laboratory and main office for Mapei in the Northern European region. The idea of STC dates back to more than 10 years ago when Rescon AS (as was the

Company once called, see the previous article) was among the few companies developing the very first alkali-free accelerators. At that time, the benefits of being able to testing shotcrete in full scale were already evident. However, a full scale test facility is expensive and demands planning and knowledge. It would therefore take another 10 years before it was realized.

A Norwegian contractor named AF contacted the UTT (Underground Technology Team) Department of

Photo 1. The STC laboratory is located in an old saw mill where a 400 V transformer was installed.

Photo 2. When testing the shotcrete, microsilica, concrete admixtures, fibres or other materials normally batched in small quantities have to be added manually.

the Mapei Norwegian subsidiary in 2008. AF had a spraying machine in separate parts, but fully functional. They had found out that they had no use for it themselves and it was not possible to sell it to some competitor. AF wanted to re-build the machine for test purpose only. The equipment consisted of a concrete piston pump, a hydraulic pump, an air compressor, two separate accelerator pumps, a complete set of hoses and spraying nozzle, and a small Iveco-truck with crane.



2



3

Before Mapei could accept the offer, suitable place to install the equipment was to be found. An old saw mill was the solution. This old industry area was just empty without water or electricity. It was decided to run the equipment on electrical power only and a 400 V transformer was installed near the location. Beside, a suitable concrete mixer was needed. An old 0.5 m³ mixer was tested and AF also offered to carry out the job of fixing it and implemented an accurate weighing system.

The rest and major part of the investment was undertaken by Mapei. This decision was made during January 2009, at a very difficult time for the world's financial markets. This really proves the long-term and high technical strategy of the Mapei Group.

The Advantages Offered by STC Lab

In times before STC, preliminary tests were done in the laboratory with accelerators added to either cement paste or mortar.

The main advantage provided by STC is that Mapei can now test accelerators in full scale quickly, in a systematic way and always with the very same equipment, simulating problems and discovering the effects. Now we can, for instance, mix 20 kg of an accelerator in a bucket and test in full scale the sprayed concrete process the very same day, or else, get some bags of cement and sand from Switzerland, mix them and test this "Swiss concrete". This is a type of

testing activity that cannot be performed in a tunnel project.

A main advantage is also that the tests are performed during constant conditions with the same equipment, concrete and operators at every time. When testing materials in the tunnels, these factors may vary from time to time. It is also a great advantage to have 100% control over the concrete production, avoiding delays and on-site problems.

How Does the Lab Equipment Works?

The concrete mixer automatically weighs the sand, cement and water. There is one silo for sand, and one for cement. The main mixer is placed on three weighing cells. The water is batched in a separate tank that also has three weighing cells. It's possible to adjust the temperature of water in order to produce warm concrete. Microsilica, concrete admixtures, fibres or other possible materials normally batched in small quantities have to be weighed and added manually.

Then the fresh concrete is poured directly into the concrete piston pump, and is pumped through a 5 inches hoze to the spraying machine placed on the Iveco truck. On this truck there is also the accelerator dosage equipment: two small tanks for accelerators and two accelerator dosage pumps.

It's therefore possible to test spraying concrete with two different accelerators at the same time. The two accelerators might also have



5



6



7



4


Photo 3. The amount of accelerators to be added to the mix can be automatically set by the equipment.

Photo 4. Spraying concrete on the samples.

Photo 5. Checking the strength development after spraying.

Photo 6. A team picture in the STC laboratory.

Photo 7. On the 5th of November, 2011, the first test was carried out and celebrated by drinking a toast to it.

"opposite" chemical features as, for instance, a different pH value. Mapei AS (as the Company is now called) held an official opening of STC on June, the 7th 2011. The Norwegian subsidiary invited guests from the tunneling industry, press, sponsors and project owners to show them the STC equipment. In August 2011 the STC was used for an important test program run by the Public Roads Administration (PRA) of Norway. PRA was interested in fire-protective sprayed concrete with micro-polypropylen fibres and wanted to test concrete elements where the micro-fibre reinforced sprayed concrete is installed under normal conditions. Even a national institutional body recognized the advantages granted by STC, which can be now fully used for advanced testing of sprayed concrete. 

A truly world-class event

2011 UCI Road Cycling World Championships were held in Copenhagen

Mapei's partnership with the UCI (Union Cycliste Internationale - International Cycling Union) to promote the season's most important cycling event really put the Company on top of the world. Mapei was once again highly successful in supporting international-class cycling by taking part as the Main Event Partner of the UCI in the 2011 Road Cycling World Championships held in Copenhagen-Rudersdal from 19th to 25th September. Mapei was also the Main Sponsor of previous editions of the Road Cycling World Championships (Melbourne 2010, Mendrisio 2009, Varese 2008) that always attract an international audience and top-class cyclists, many of whom trained at Mapei Sport, a sport research and support centre set up in 1996 under the expert supervision of Aldo Sassi and located in Castellanza (Province of Varese, northern Italy).

This close working relationship with cycling of the very highest level strengthens the Company's image on the international stage, where it is already acknowledged as being the world's leading manufacturer of chemicals for the building industry and a prestigious brand linked with sport in general and cycling in particular.

Notable Media Coverage

The UCI Championships, the season's most important cycling event traditionally held at the end of September, is, of course, a very special showcase, a privileged moment when cycling really is the most popular sports event at this time of year. It is, therefore, an opportunity to enhance the

international visibility of the various brands involved in this event, which know they are targeting a very specific and extremely high number of fans across all five continents.

Coverage of the brand was truly remarkable and the blue of Mapei was the colour that really stood out most at these World Championships. With banners located at key places along the route along with inflatable columns and arches, the Mapei trademark also appeared on the jerseys worn by the riders and, needless to say, in the finish area both on the ground just after the finish line and on road signs along the route, as well as on carefully targeted locations that regularly appeared on television screens all over the world. It was also constantly visible on the backdrops behind the prize-giving zone and specially designated interview points.

But of course there was much more too.

The Mapei Motor-home, the coach used by the Company for training and sport activities, was parked in the finish area in Copenhagen, together with a tent to create an exhibition area devoted to Mapei and Mapei Sport, which also acted as a sort of landmark for guests in attendance over the various days of the individual time trials. Both the exhibition area and "finish line" facility then moved to Rudersdal for the road races. An exhibition stand was set up there, providing corporate communication for the Mapei company and Mapei Sport centre. But the real focal point of Mapei's presence in Rudersdal was the hospitality area installed around the Motor-home in a privileged position just a few metres beyond the finish line,



Photo 1. A picture from the cycling competition held in Copenhagen-Rudersdal from 19th to 25th September 2011.

which turned into a meeting point for corporate partners, customers, journalists and lots of friends of the Company. Mapei invited over 400 guests to follow the events, mainly coming from Norway, Denmark and Sweden, but also Belgium, Slovenia and Italy.

Mapei AS and Mapei AB, the Group's Norwegian and Swedish subsidiaries, took full advantage of these World Championships in Denmark to organise social events that involved bringing its guests from Oslo by boat and describing an important new innovation to them both on the way and



then again at the hotel Scandik Sydhavnen, where they congregated together with guests from Denmark. An important and delicate transition was made official at this meeting: the decision to combine all the Nordic companies in one single corporate image and one single trademark, the Mapei brand (see the article on previous pages).

All the hard work in organising and managing the event by Mapei staff out on the race circuit was backed up by an advertising campaign that saw numerous Mapei advertisements appear in the Italian

Photo 2. Mapei supported the event as the Main Event Partner of the UCI (Union Cycliste Internationale).

Photo 3. The start of one of the races.

sports press and on Italian television main channels during the week's racing, particularly during the live television broadcast of the men's road race, the last and most eagerly awaited event on the schedule, which took place on Sunday, 25th September. Mapei adverts also appeared on television in China, USA and Norway.

The Course

This is the fifth time the capital of Denmark has hosted the Road Cycling World Championships. And apart from Learco Guerra's win for Italy in 1931, the Belgians

have always won the World Championships held in this country: Eloi Meulenberg in 1937 and Rik Van Steenbergen in 1949 and 1956.

After years of competing separately from the under 23s and professionals, this year the juniors were invited to take part in the "main" World Championships with both the road races and individual time trials for boys and girls.

All the individual time trials started and ended in City Hall Square in the heart of the city of Copenhagen, while the road races took part on a course stretching



4

The elite men's road race began with a 20 km stretch leading into the centre of Copenhagen before joining the main circuit. The World Championships circuit was 14 km long, to be ridden 17 times with 105 metres of climbing in altitude on each lap.

(46 km/h), so that the race finished much earlier than expected - after one of the fastest World Road Race Championships ever - there was a very tense finish with plenty of riders pushing and vying for position. Matthew Goss came second for Australia followed by André Greipel of Germany.

The World Championships Elite Man Race

The British rider Mark Cavendish won the elite men's road race at this year's World Championships in Copenhagen, snatching the gold medal thanks to a majestic sprint finish just ahead of Matthew Goss and André Greipel: this is the second time the United Kingdom has won World Championships after Tom Simpson's victory in San Sebastián in 1965.

Generally speaking, the British team performed magnificently, controlling the race with consummate authority. It should also be pointed out that, thanks to Mark Cavendish's victory in the men's road race, Great Britain headed the medals table at the Copenhagen World Championships. Australia came second with just one medal less, followed by France, Germany and Denmark. Italy can only boast the gold medal won the day before by Giorgia Bronzini.

With an incredible average speed



5

Photo 4. The hospitality area set up around the Mapei Motor-home allowed over 400 guests to watch the race from a privileged vantage point.

Photo 5. Trond Hagerud, General Manager of Mapei AS, with some Norwegian guests.

Photo 6. Relaxing in the Mapei hospitality area after the end of the races.



6

around Rudersdal in the northern borough of Copenhagen; only in the case of the men's elite race did the start take place in City Hall Square in Copenhagen and, after a short 20 km stretch, it then diverted onto the main course. Since Copenhagen is located at sea level, there were no really tough climbs, of course, so it turned out to be an easier race than the World Championships held in Melbourne last year. "Very easy, perhaps too easy", was Giorgio Squinzi's comment after inspecting the course on his bike just a few hours before the race.



7

Analysing in detail the tactics for the men's race planned by the Italian head coach Paolo Bettini, it has to be said that the Italian team did not really have top-class sprinter capable of competing with other super-fast sprinters along home straight. Although there is still a feeling of disappointment, that does not necessarily mean there was any lack of commitment, take for instance Paolini, Visconti and Gavazzi, who tried to make it a tough race by entering all the breakaways, which, however, were always carefully controlled by the super strong Great Britain team.

Women's Gold for Italy

Giorgia Bronzini from the Italian team became World Champion again this year, beating the favourites Marianne Vos and Ina Teutenberg on the slightly uphill finishing straight in Copenhagen. Giorgia Branzini managed to beat Marianne Vos again, and it is worth mentioning that this is the fifth time in a row that this Dutch rider has come second in the World Championships, four times behind Italian riders.

The women's race inevitably ended up in a sprint finish too, with both the Netherlands and Germany among the favourites, since they could count on the fast finishes of Vos and Teutenberg, but the Italian team also had its chances with Bronzini in particular. It was not a spectacular race, but the finish was electrifying and the Italian fans will never forget Bronzini's great win. This is what Giorgia Bronzini had to say right after the race: "We really believed we could win this race. Last year even I was surprised there was a sprint finish, but this year I kind of expected it.

I would like to dedicate this victory to Franco Ballerini and Marina Romoli. They will always be in our hearts".

Mapei Will Continue Its Sponsorship

Now that the wonderful World Championships in Denmark are

over, it is already time to look ahead, and the future will once again see Mapei play a leading role in the World Championships. The 2012 UCI Road Cycling World Championships will return to Limburg in the Netherlands, where they were previously held in 1938, 1948, 1979 and 1998. In 2013 they will once again be held in Italy.

For both these events Mapei will again be the UCI's Main Event Partner, reasserting the Company's continuing belief in cycling and determination to promote both the sport of cycling and itself, all around the world, by associating its name with the oldest of all the sport's races. Working on the assumption that even when it is not sport, cycling is something that respects nature, Mapei, which has always been interested in issues of eco-sustainability, was keen to do more. By working with the UCI, the Company will also be supporting the "reCycling" project, which aims to help the organisers of cycling events around the world to comply with the principles of sustainable growth. A "green policy" that Mapei embraces every day by studying and launching onto the



8



9

Photo 7. The winner's podium for the women's race with Giorgia Bronzini in the middle.

Photos 8 and 9. Mark Cavendish at the finish line of the elite men race and at the prize-giving ceremony.

Photo 10. Giorgio Squinzi, CEO of the Mapei Group, inspected the course on his bike just a few hours before the race.



market products that do not harm people or the environment. A philosophy, which Mapei's Dutch subsidiary, Mapei Nederland, put into practice in September by organising "Mapei Green Innovation Cycling Tour", an event inspired by these principles that over 100 company staff and customers took part in. Farewell until Limburg.

DM



10

The E18 European Route

Avant-garde sites and products for a motorway crossing the countries of Northern Europe



A FEW FIGURES FOR THE E18

Overall length:	1890 km
Direction:	west to east
Countries crossed:	Northern Ireland, England, Norway, Sweden, Finland and the Russian Federation

There is a communication route which crosses Europe, connecting Northern Ireland to Russia.

We're talking about the E18, the European road network which goes through Norway, Sweden and Finland, with a total length of 1890 kilometres.

The E18 starts in the Irish city of Craigavon and goes through Carlisle in Scotland and Newcastle upon Tyne in England. From here, the road passes onto Norwegian soil to the capital Oslo, goes through the cities of Karlstad and Stockholm in Sweden, crosses over to Finland continues through the

cities of Turku and Helsinki. It then finally enters into Russian territory and, after going past the city of Vyborg, comes to an end in St. Petersburg. Long stretches of the E18 have first-hand experience of products marketed by the Mapei Group's subsidiaries operating in Scandinavia, such as the Norwegian Mapei AS, the Swedish Mapei AB and by the Finnish Mapei OY. The following pages will contain a presentation of the stretch between Grimstad and Kristiansand in Norway, a tunnel constructed in the city of Oslo and the stretch of motorway between Muurla and Lohja in Finland.



A stretch of the E18 in Norway.



E18 - From Grimstad to Kristiansand

Grimstad is located in the southern-most part of Norway and overlooks the Skagerrak, a channel of the North Sea between Denmark, Norway and Sweden. This is the starting point for the stretch of the E18 which connects Grimstad to Kristiansand, the fifth city in Norway for size and importance. This stretch was constructed using the system of OPS (Offentlig Priva Samarbeid), or Project Financing, whereby private companies are responsible for the design, logistics and financing of the construction of public infrastructures, rather than relying on contributions from local authorities. This stretch included 61 bridges, 7 tunnels dug through the rocks and another tunnel made from concrete. The total length of the tunnels excavated into rock for-

mations is 11,900 m. Construction work on the tunnels included the use of 37,000 m³ of shotcrete and more than 50,000 m³ of various products used for anchoring and reinforcing the rocks.

The Mapei AS Technical Service Department recommended a wide selection of products to optimise the construction work of the tunnels, including for interventions carried out at very low temperatures. Amongst the products used were DYNAMON SN-X, a latest-generation, nano-structural admixture for concretes with long slump retention, MAPETARD SD-2000, a liquid retardant for concrete and cementitious mortars developed specifically for shotcrete, and MAPEQUICK AF-2000, an alkali-free accelerator for shotcrete, which is also suitable for use on low temperature rock faces.

TECHNICAL DATA

E18 Route Section Between Grimstad and Kristiansand (Norway)

Period of Construction: June 2006 – August 2009

Period of the Mapei Intervention: 2006-2009

Intervention by Mapei: supplying products for structural anchoring and waterproofing as well as admixtures for shotcrete

Project: Statens Vegvesen

Client: the Norwegian Public Roads Administration

Project Financing Company: Agder OPS Vegveselskap

Contractors: Leonhard Nilsen & Sønner (for rock tunnels)

Works Direction: Roy-Arnt Erlandson - Leonhard Nilsen & Sønner; Finn Aasmund Hobbelsland

Mapei Coordinators: Roy Hansen, Bjarne Ruud, Mapei AS (Norway)

MAPEI PRODUCTS

The Mapei products mentioned in this article belong to the “Admixtures for Concrete” range. Mapei plasticizers and superplasticizers for concrete have been awarded the CE mark in compliance with EN 934 standard. The technical data sheets are available at the web site: www.mapei.com.

Mapequick AF2000: alkali-free accelerator for shotcrete.

Mapetard SD2000 (EN 934-2): retardant admixture for concrete and cementitious mortars.

The other mentioned products (**Zinkbolt**, **Cemsil**, **Mauring**, **Dynamon SX-N**, **Grout Tech 2000**, **Ultrafin 12**, **Microfin 20**, **Mapequick 34**, **Mapequick AF 2010S**, **Mapequick SA**, **Steelfibre**, **Mapeplast P**, **Mapetard R**, **Mapecure CCI-2000**, **Mapeair 25**, **Resfoam**, **Rescon T**, **Mapegrout I**) are manufactured and distributed in the northern European countries by Mapei AS, the Norwegian subsidiary of the Mapei Group.



2

Photos 1 and 2. Various phases of shotcrete being applied on the internal and external walls of the tunnel.



1



2

E18 - The Bjørvika Tunnel in Oslo

The E18 runs along the western coast of Norway and passes through the city of Oslo. The submarine Bjørvika tunnel (now known as the “Opera Tunnel”) was constructed along this stretch. It connects two areas of the city and has eliminated the dense traffic which characterised this urban area. The peninsula of Bjørvika, located at the end of the fjord overlooked by the capital city, is home for the Norwegian National Opera and Ballet and the National Opera House (see the related article in *Realtà Mapei International*, issue n. 35). Because of its close proximity to the city centre, the entire area will be transformed for residential and commercial use with large swathes of parkland. The overall intervention has seen the construction of 1,100 m of tunnel (of which 675 m underground), 8,000 m of roads, 5,700 m of pedestrian footpaths and cycle paths and 3,500 m of road lanes for public transport use only. The Bjørvika Tunnel is the first immersed tunnel built in Norway, and the six pre-cast concrete modules which make up the tunnel were specially made in Askøy, in the Bergen region, and then transported by sea to Oslo. Each of the six pre-cast mod-

ules is 112.5 m long and 10 m high, and vary in width from 28 to 43 m. Installation of each module required two weeks of work.

The tunnel was built using a two-tubes system with three lanes running in each direction, and a dividing wall which has been designed to withstand earthquakes. Such a complex infrastructure, in terms of size, site location and the materials employed, required constant on-site assistance and the use of high quality products tested for use at the low winter temperatures typical for Scandinavia, and also because part of the tunnel runs below water. The contractor contacted Mapei AS, the Norwegian subsidiary of the Mapei Group, which recommended a series of products for repairing concrete (REDIREP 25 RSF and REDIREP 45 RSF), for structural bonding using epoxy resin-based products and fluid mortars for anchoring (MAPEPOXY LR, MAPEPOXY L, MAPEPOXY MS, NONSETT 50, NONSETT 120 and NONSETT 400), injection resins (MAPEPOXY BI-IMP and MAPEPOXY BI-R), concrete curing admixtures (MAPECURE 1, MAPECURE MH and MAPECURE E) and products for repairing concrete in water (50 UV-T and 600 UV-T).

Photo 1. The stretch of the Bjørvika Tunnel.

Photo 2. The entrance to the tunnel.

Photos 3 and 4.

A good part of the tunnel runs below the waters of the fjord overlooked by Oslo.



Photo by Fotograf Teerud

3

TECHNICAL DATA

Bjørvika Tunnel (now called Opera Tunnel) along E18, Oslo (Norway)

Period of Construction: August 2005 – September 2010

Period of the Mapei Intervention: 2005-2010

Intervention by Mapei: supplying products for structural anchoring and concrete repair as well as admixtures for concrete

Client: The Norwegian Public Roads Administration

Contractors: AF Bjørvikatunnelen (Skanska, BAM, Civiël, VSCE); Skanska
Project: Svein Røed

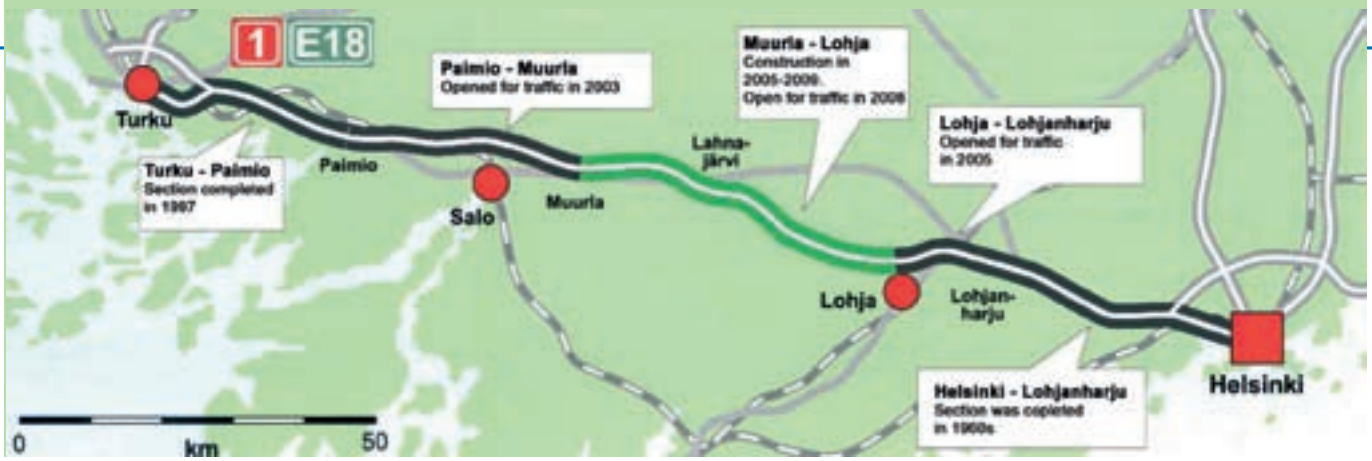
Mapei Coordinators: Bearne Ruud, Stein Age Lysgard, Mapei AS (Norway)

MAPEI PRODUCTS

All the mentioned products (DS, Mapepoxy L, Mapepoxy LR, Mapepoxy MS, Mapepoxy BI-IMP, Mapepoxy BI-IMP COMP-A and COMP-B, Mapepoxy BI-R, Redirep 25/45 RSF, Nonset 50/50FF, Nonset 120/120FF, Nonset 400/400FF, 50 UV-T, 600 UV-T, DS, Mapelatex RM, Formolje DMA 3000, Mapecure 1, Mapecure MH, Mapecure E) are manufactured and distributed in the northern European countries by Mapei AS.



4



E18 – From Muurla to Lohja

After leaving Norway, the E18 runs through Sweden to reach Finland, the last leg of its journey before arriving in Russian territory.

Between the cities of Turku and Helsinki, along the stretch between Muurla and Lohja, 50 kilometres of motorway have been constructed with 4 lanes, 2 lanes for each direction.

The motorway in this area runs between wooded valleys and open fields. This part has been subdivided into three parts: Muurla-Lahnajärvi (Finnra, the Turku region and various local boroughs in the area); Lahnajärvi-Oittila (Finnra, the Uusimaa region and various local boroughs in the area); Oittila-Lempola (Finnra, the Uusimaa region and various local boroughs in the area).

The work involved stripping rocky areas, removing a large quantity of rocks and earth and building con-

tainment and ballast walls. Seven tunnels were also built, with a total length of more than 5 kilometres.

During construction work, particular care was taken to respect the local environment around the highway network, by protecting the underground water and using highly-efficient barriers to reduce noise.

There is also a sophisticated data-collection system which gathers information about traffic and road conditions, constantly informing an operations centre so they may quickly intervene if there are potential hazards or problems for traffic.

The Technical Service Department from Mapei OY, the Finnish subsidiary of the Mapei Group, was contacted to coordinate the contractor building the tunnels, and they recommended the use of REDIREP 45 RSF mortar for concrete repair and MAPEQUICK AF 2000 alkali-free accelerator for shotcrete.

TECHNICAL DATA

E18 Route Section Between Muurla and Lohja, Uusimaa (Finland)

Period of Construction: 2006-2008

Period of the Mapei Intervention: 2006-2008

Intervention by Mapei: supplying products for concrete repair as well as admixtures for shotcrete

Client: the Finnish Road Administration

Contractors: LemCon Oy, Skanska Infra OY

Project Development: Ykköstie OY

Works Direction: Mauri Ketonen

Mapei Coordinator: Laura Halonen, Mapei OY (Finland)

MAPEI PRODUCTS

Mapequick AF2000: belong to Mapei "Admixtures for Concrete" range. Its technical data sheets are available at the web site: www.mapei.com.

Mapequick AF2000: alkali-free accelerator for shotcrete.

Redirep 45 RSF is manufactured and distributed in the northern European countries by Mapei AS.



Photos 1 and 2.

The entrance to one of the tunnels dug in the rocks along the stretch from Muurla to Lohja.



1

A “green” nursery in France

Linoleum flooring for an eco-sustainable company crèche

Don't be surprised if Lyreco, a company which operates in the office supplies sector, has been included six times out of seven in the league table of companies where working “is good for you”. In fact, the wellbeing of the employees is one of the main priorities for this French company, which has created a range of services specifically to improve the quality of life. One of these is the new company crèche at the headquarters in Marly, a city in the north of France. Situated less than 200 meters from the main office block, the crèche takes care of around 30 children whose ages

range from 3 months to 3 years. So parents can find a fine balance between their profession life and their family life.

An Ecological Nursery

Lyreco is also sensitive to the themes of sustainable development and safeguarding the environment, and chose a company specialised in ecological company crèches.

The result is “Lyreco Kids”, an eco-friendly construction, in credit as far as carbon emissions are concerned, made from natural, noble materials completely free of phthalates and formaldehyde, and with an air filtering system which

Photo 1. One of the rooms in the Lyreco Kids company crèche where products which respect people's health and the environment were chosen for the construction.

Photo 2. The entrance to the Lyreco crèche. The Mapei products chosen for this building guarantee a safe, hygienic environment particularly suitable for crèches and schools.

completely eliminates benzenes. In accordance with the guidelines for this project, only products which respect the environment and people's health were employed; and this is why Mapei products were chosen.

Preparation and Smoothing of the Substrates

The high summer temperatures had caused cracks in the existing substrate formed by a cement floor slab. The cracks were opened, cleaned and then repaired using EPORIP two-component epoxy adhesive. After sand-blasting and hardening, EPORIP forms a waterproofing layer with high mechanical strength. To promote adhesion of the smoothing layer, the surface was treated with a coat of PRIMER G quick-drying, synthetic resin primer which is supplied ready to use. Completely free of solvent, it is certified EMICODE EC1 by the German GEV Institute, and guarantees a very low emission level of volatile organic compounds



2

Photo 3. The cracks in the substrates were repaired with EPORIP two-component epoxy adhesive.

Photo 4. The linoleum flooring was laid with solvent-free adhesive ULTRABOND ECO 540.



3



4

IN THE SPOTLIGHT

EPORIP

It is a solvent-free epoxy adhesive consisting of two pre-measured components that have to be mixed before use. EPORIP has the consistency of a slightly thixotropic paste that can be applied by brush on both horizontal and vertical surfaces. It can be used for monolithic construction joints between fresh and hardened concrete; bonding precast concrete elements; bonding steel to concrete; filling cracks in concrete. EPORIP polymerises without shrinkage and, after curing, is waterproof, possesses excellent dielectric properties and high mechanical characteristics in

addition to its ability to bond concrete and steel. EPORIP meets the requirements defined by **EN 1504-9** and the minimum requirements claimed by **EN 1504-4**. It can contribute up to **2 points** to obtain the **LEED** (Leadership in Energy and Environmental Design) certification.

PRIMER G

It is a water dispersion of special synthetic resins which, once applied to any surface, dry to form a flexible, compact, shiny coating which consolidates the surface, where needed. PRIMER G improves the adhesion of smoothing compounds, paints, adhesives for wall paper, adhesives for tiles and mortar for renders. It can be used for treating gypsum surfaces prior to laying ceramic

tiles; as an anchoring coat for gypsum-based sprayable plasters; to improve the bonding of smoothing compounds on cement, gypsum, asphalt, ceramic and marble surfaces cement based and calcium sulphate-based screeds and asphalt; to provide uniform absorption in cementitious or gypsum surfaces.

It has been awarded the **EMICODE EC1** ("very low emission level of volatile organic compounds") by **GEV**. It can contribute up to **2 points** to obtain the **LEED** certification.

(VOC). After drying (at least two hours at 20°C), the entire surface was smoothed with a layer of **MAPESOL 3**. This high-performance smoothing compound is certified **CSTB P3** according to French standards by the Centre Scientifique et Technique du Bâtiment (CSTB), and is distributed on the French market by Mapei France. The equivalent product on the international market is known as **PLANO 3**.

These products are applied in layers from 3 to 10 mm thick on new or existing substrates set to foot traffic after as little as 6 hours and form an excellent smoothed layer with a perfect surface.

Laying the Linoleum Floorings

Around 300 m² of linoleum floorings were laid with **ULTRABOND ECO 540**, a synthetic polymer adhesive in water dispersion, particularly suitable for laying linoleum in areas subjected to heavy traffic and the movement of wheelchairs.



ULTRABOND ECO 540 is very easy to apply, has a very high early grab and enables the adhesive to cover the back of the floor coverings. Supplied ready to use, this adhesive is easy to apply on substrates using a notched trowel. Completely free of solvent and classified EMICODE EC1, ULTRABOND ECO 540 may be used in particularly busy areas such as schools.

Joseph Alati from GLM, the company which carried out the work said: "This building site was the first time we had used the solvent-free adhesive ULTRABOND ECO 540. Our floor-layers were highly appreciative of the product, so much so that we have decided to use it again to meet the requirements of the environmental norms we have in France, and above all to safeguard the health of our floor-layers".


PRIMER G and ULTRABOND ECO 540 are part of the Mapei



Photos 5 and 6. Views of the inside of the crèche. Before laying the linoleum, the surfaces were smoothed over with MAPESOL 3, available on the French market. The equivalent product in the international market is PLANO 3.

eco-sustainable range of products and guarantee safe, hygienic environments such as hospital, clinics, hospices and schools. Completely free of solvents and with a very low emission level

of volatile organic compounds, these products guarantee comfort in the workplace and respect for the health of floor-layers and end users.

Inaugurated in September 2008, Lyreco Kids has already made numerous children and their parents very happy. A wonderful, useful initiative, in which Mapei is proud to have played a part. 

We would like to thank the company Lyreco and the construction company GLM for their kind help in writing this article.

This article was taken from "Mapei & Vous" issue n. 29/2010, the in-house magazine published by Mapei France, the French subsidiary of the Mapei Group, whom we kindly thank.

TECHNICAL DATA

Lyreco Company Crèche, Marly (France)

Year of Construction: 2009

Year of the Intervention: 2009

Intervention by Mapei: supplying products for preparing the substrates and laying linoleum indoor floorings

Client: Lyreco

Project: Pierre-Marie Deefort, Valenciennes (France)

Laying Company: GLM, Lille (France)

Laid Materials: linoleum floorings supplied by Marmoleum

Works Director: Veritas

Mapei Co-ordinator: Vincent Lecomte, Mapei France

MAPEI PRODUCTS

The products mentioned in the article belong to the "Products for the Installation of Resilient and Textile Floor and Wall Coverings" line. The technical data sheets are available at the web site: www.mapei.com. Mapei levelling and smoothing compounds and pre-blended mortars for screeds conform to EN 13813 standard and have been awarded the CE mark in compliance with annex ZA, standard EN 13813. Almost all the Mapei products for laying floors and walls have been awarded the EMICODE EC1 ("very low emission level of volatile organic compounds") mark by GEV. More than 150 Mapei products contribute to obtain the LEED (Leadership in Energy and Environmental Design) certification.

Preparing the substrates

Eporip (CE EN 1504-4): two-component epoxy adhesive for monolithic sealing cracked screeds.

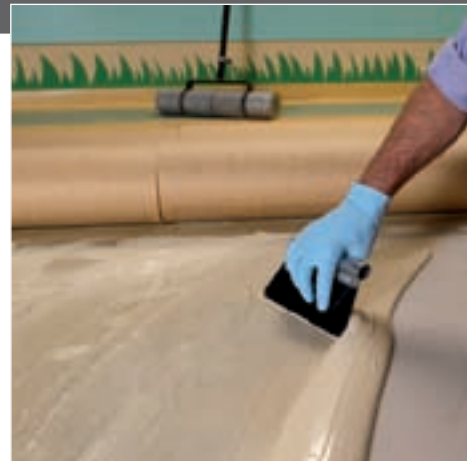
Primer G (EC1): synthetic resin primer in water dispersion with a very low emission level of volatile organic compounds (VOC).

Laying linoleum floorings

Ultrabond Eco 540 (EC1): solvent-free synthetic polymer adhesive in water dispersion with very low emission level of volatile organic compounds (VOC) for bonding linoleum.



Ultrabond Eco 520



Application

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

- One component, ready-to-use
- Synthetic polymer base in water dispersion
- Low environmental impact⁽¹⁾
- High and quick initial setting
- Long open time
- "Pressure sensitive"^(**)
- Suitable for laying in environments subject to intense traffic



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

⁽¹⁾Certified by the GEV Institut as EC1 Plus, extremely low emission level of volatile organic compounds

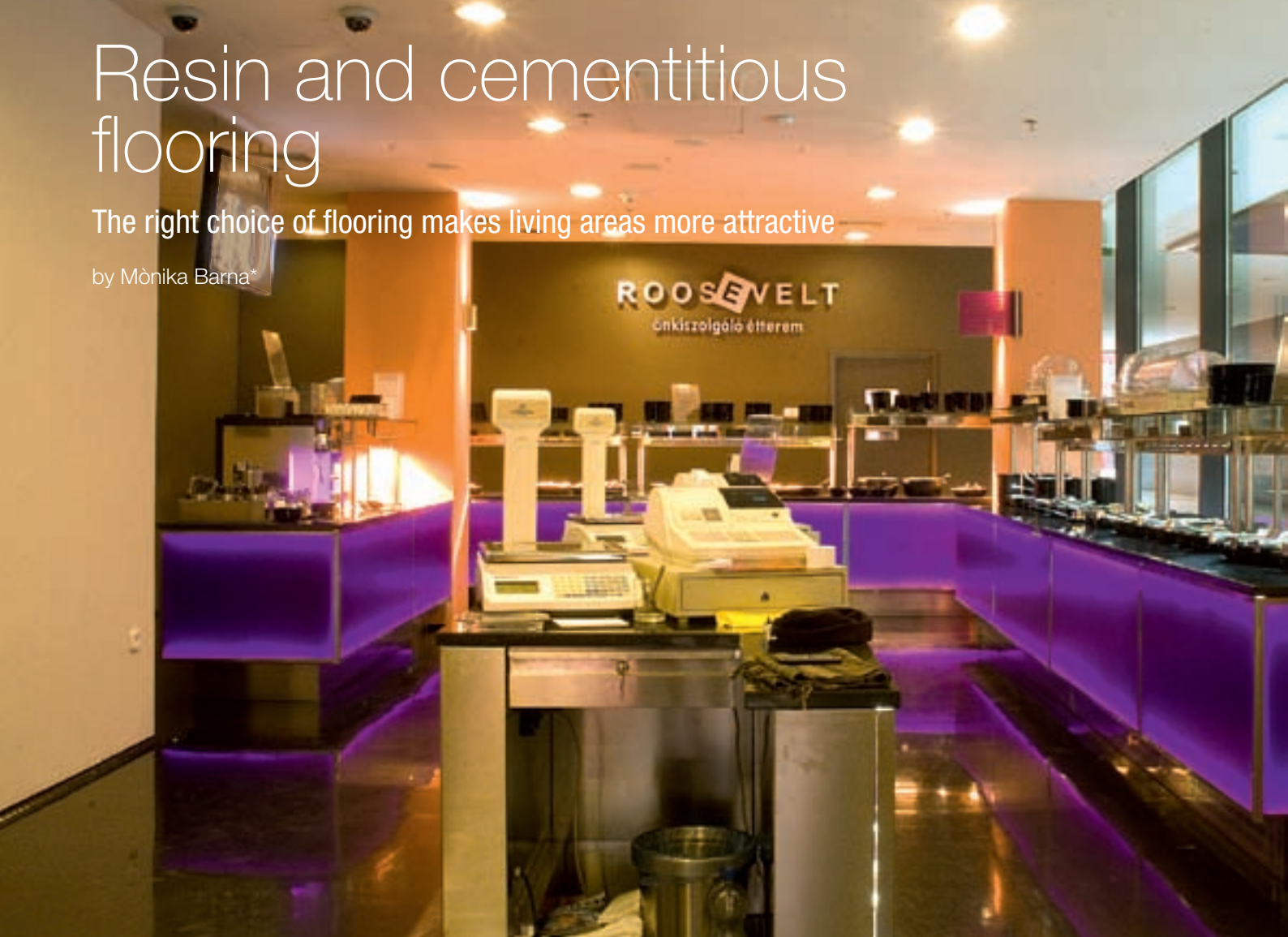
^(**)Rolling guarantees excellent transfer to the back of the floor covering, even several hours after laying



Resin and cementitious flooring

The right choice of flooring makes living areas more attractive

by Mònika Barna*



Resin coverings used to be employed to make industrial floors. Then, with the advance of technology and an increase in demand, more innovative products appeared on the market, created for use in different contexts. In particular, after the introduction of polyester resins in solvent dispersion, coverings made from epoxy and polyurethane resins and cement-modified, water-based resins became more widespread.

The very nature of resins allow them to be used to obtain a variety of decorative effects. Initially, coloured silica sand was mixed with clear or trans-lucid resin to make so-called “décor floors”. Other products were then developed for purely decorative purposes and new colour effects were created by manufacturers and designers. Thanks to the large investments made by Mapei into Research & Development, every year new products for decorative coverings are developed to sat-

isfy the constantly-growing demand and market. In the range of Mapei products, decorative coverings for floors are subdivided into epoxy-based, polyurethane-based and cementitious-based.

Epoxy Floor Coverings

One of the best-known and most highly-appreciated epoxy coverings is the self-levelling MAPEFLOOR SYSTEM 33. This is an epoxy resin flooring system available in a wide range of RAL colours which may be used to make extremely smooth, shiny floors, and is mainly destined for use in commercial environments, such as shops or showrooms, or in private residential environments, such as apartments. The epoxy resin DECOR SYSTEM 70 may also be used to obtain highly original solutions: floors made using this system have an irregular, matt effect, with a very attractive finish. This product, similar to paste, is not self-levelling, and models itself according to how it is applied on the surface. One or more colours may be used. MAPEFLOOR



4



5



Photos 1, 2 and 3.
MAPEFLOOR SYSTEM
 33 allows shiny, smooth
 surfaces in various colours
 to be created.

Photos 4 and 5.
 Mapei resin and
 cementitious coverings
 are available in various
 colours and, once
 installed, form highly
 attractive floors with
 strong aesthetic value.

DECOR 700 is the flagship product of DECOR SYSTEM 70. When the epoxy mix hardens, the entire floor surface may be sanded even more to remove any irregularities left by the material during application. Photographs or other thin decorations may also be laid on the surface of the floor.

It is all then covered with the transparent covering MAPEFLOOR I 300 SL TRP, to form a flat, shiny surface with a three-dimensional effect. As an alternative, specific film-forming products may be applied to give the floor the desired effect and, at the same time, improve the resistance of the surface to abrasion. With this method, the final appearance of the floor may be chosen between matt, glossy and a satin effect.

Another interesting product from the epoxy range is MAPEFLOOR I 320 SL CONCEPT, a self-levelling floor covering which guarantees excellent aesthetic results with a granular effect, available in 5 different colours. So it is possible to create continuous, flat floors in industrial environments, as well as in civil environments, such as laboratories,

offices, canteens, changing rooms, hotel foyers, etc. After the floor has been used for a number of years there will be signs of wear, and it may then be brought back to its original condition by polishing it with a diamond tool.

Cementitious Floor Coverings

And let's conclude by talking about ULTRATOP SYSTEM, a quick-setting and hardening, self-levelling cementitious system with ultra-high resistance to abrasion, which may be used to create finished floors with high versatility. Floors made using ULTRATOP may have either a "natural effect" (between 5 and 40 mm thick), a "polished effect" finish (between 10 and 40 mm thick) for a perfectly flat, smooth, light-reflective surface, or a "Terrazzo alla Veneziana effect" (between 15 and 40 mm thick) by using self-levelling ULTRATOP mixed with Mapei DYNASTONE COLOR coloured cementitious aggregates, or with natural aggregates. Let's have a closer look at the various options:

- Natural effect


When used as a finished floor, a coat of primer must be applied before casting the ULTRATOP in a layer of between 5 and 15 mm thick. The product is available in light grey, anthracite, white, beige, red and standard. These colours may be used by themselves or mixed together, to create highly attractive finishes. After preparing and applying the ULTRATOP, the hardened surface of the mortar may be treated with specific finishing products such as MAPEFLOOR FINISH 52 W, which does not alter the colour of the surface, or with MAPEFLOOR FINISH 50, which gives the covering shiny, wet-look finish. Both these treatments improve the resistance to abra-

sion of ULTRATOP, which used on its own is already considerably high.

- Polished effect

Around 2-3 days after application, ULTRATOP may be dry polished with a diamond-tipped grinder to create a shiny finish reflecting the light and similar to natural stone. A suitable primer must also be used in this case before mixing ULTRATOP. Because the dry polishing treatment removes a layer approximately 2 mm thick from the surface of the flooring, its final thickness must be calculated accordingly, and must never be less than 10-12 mm.

- Terrazzo alla Veneziana effect

The Terrazzo alla Veneziana effect is obtained thanks to the use of DYNASTONE COLOR coloured cementitious aggregates or natural aggregates mixed into ULTRATOP, which is used as a binder. The correct proportions between aggregates and binder must be verified each single time according to the size and granulometry of the aggregates. The final thickness of the flooring, therefore, must be calculated according to the size of the aggregates and the abrasive effect of the dry polishing treatment. The dry polishing process brings out the quality of the aggregates, and forms original floorings which are quick and easy to lay. 

This article has been taken from "Mapei Kronika", issue n. 25, the in-house magazine published by Mapei Kft, the Hungarian subsidiary of the Mapei Group, whom we kindly thank.

For further information, please pay a visit to our website www.mapei.com.

*Product Manager for Industrial Floorings, Mapei Kft (Hungary).

Resin and cementitious floorings



LE CLOCHARD CLUB, CAPRI (ITALY)

One of the most fashionable discos on the island of Capri, Le Clochard Club (formerly Musmè) has been completely renovated. The 130 m² dance floor was completely redone using MAPEFLOOR I 300 SL.



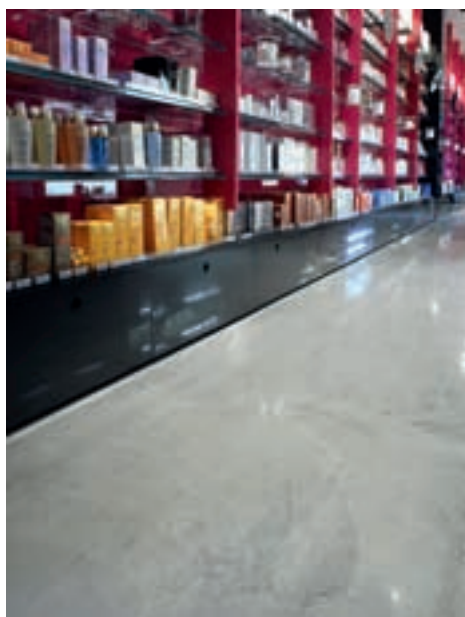
KAPOSVÁR CULTURAL CENTRE (HUNGARY)

To recreate the Terrazzo alla Veneziana-effect floor in the Kaposvár Cultural Centre in Hungary, the substrates were treated with PRIMER SN and the cementitious floor was made using ULTRATOP SYSTEM.



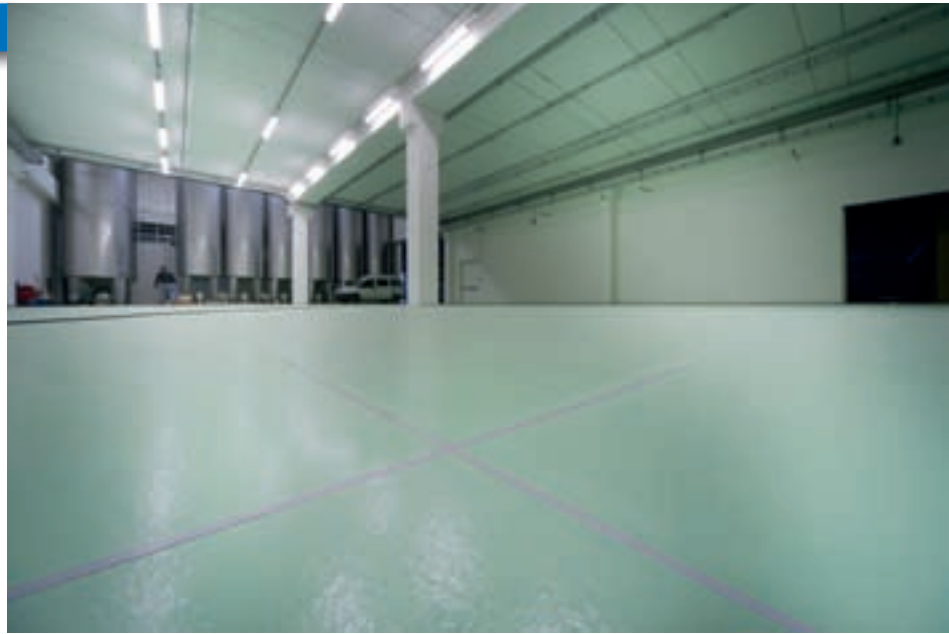
COIN SHOPPING CENTRE, MILAN (ITALY)

MAPEFLOOR SYSTEM was chosen to make the silver-coloured flooring with a scratch-effect finish in the Coin chain shopping centre in the centre of Milan.



ICAM, LECCO (ITALY)

The floorings in the storage and processing areas in the ICAM manufacturing plant in Lecco (northern Italy) were made with a 1.5 mm thick resin covering using MAPEFLOOR I 300 SL after treating the substrate with PRIMER SN. The joints were sealed with MAPEFLEX PU45.



BAR AND CAKE SHOP, NAPLES (ITALY)

The flooring in one of the most famous bars and cake shops in the centre of Naples was renovated using gold-coloured DECOR SYSTEM after sanding and polishing the existing substrate. MAPEFLOOR I 300 SL was then applied to give the beautifully-decorated floor a three-dimensional effect.

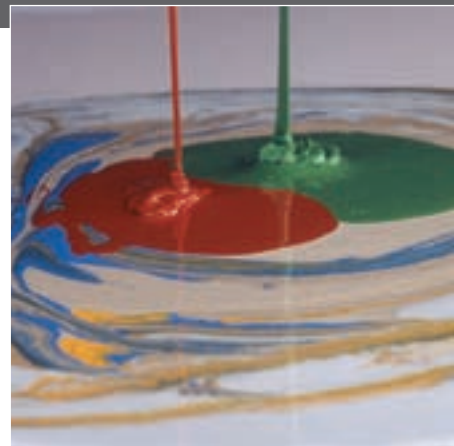


FERRARI/MASERATI SHOWROOM, VANCOUVER (CANADA)

In the Ferrari/Maserati showroom in Vancouver (Canada), more than 5,000 m² of cementitious floor was laid using ULTRATOP SYSTEM.



Mapecolor System



Application

Systems for resin floorings.

A complete range of epoxy and polyurethane floorings systems for industrial and civil environments, showrooms, shopping centres and supermarkets.

- Continuous surfaces without joints
- Water-repellent, hygienic and easy to clean
- Excellent mechanical resistance and resistance to chemical agents
- Available in several colour shades
- Very short application times
- Long-lasting



MAPEI DAY 2011

Bormio, 17th July,
Stelvio Pass



The seven year itch, if there is such a thing, certainly does not concern Mapei Day. This extremely important sport event held in Bormio during the middle weekend of July has now reached its seventh edition and is continuing to be a great success both in terms of the enthusiasm it engenders and the rise in the number of people taking part. A festival of sport and friendship during which everybody can put themselves to the test in various different sports.

Mapei Day has a very simple and old-fashioned recipe combining top-class sports events with extremely effective moments of socialising. All this in the magical atmosphere deriving from the incredible setting of the mountains surrounding Bormio, in the Alta Valtellina area in Northern Italy. An event which, year by year, sees the community of Bormio and its guests getting increasingly involved. An agreement arranged with the local association of traders meant that lots of T-shirts decorated with the symbols and colours of Mapei Day 2011 were available everywhere. Almost all shops displayed the creatively “interpreted” official T-shirts for the event. It’s

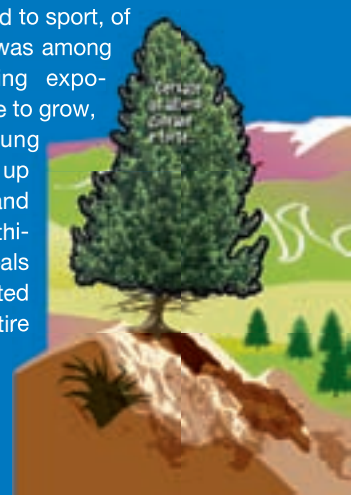
hard not to smile when you see a proud big old cat in a hotel window wearing this sports garment with the same focused look in its eyes as somebody ready to take on a sporting challenge. Sport was most definitely the winning ingredient binding together people coming from all over the world. This is the same spirit in which Mapei set up the Mapei Sport Research Centre in Castellanza (Province of Varese, Northern Italy) in 1996 with the aim of promoting medical-sports research mainly focusing on the physiology of exercise.

Study Grants in Aldo Sassi’s Memory

In keeping with this deep bond with sport and its most representative exponents, at this year’s Mapei Day a announcement was made about a project of great scientific and cultural value connected with training of the very highest standard in the field of scientific research and innovation. With a view to encouraging young people to get involved in research projects in the field of sports science, this project, set up in memory of Professor Aldo Sassi and his scientific work (the General Manager of the

Centre who recently passed away), aims to finance new projects connected with the sports sciences, instituting an annual “Aldo Sassi Study Grant” to be awarded over the next three years to three young graduates in the Motor Sciences.

The three cheques worth 10,000 Euros each will be awarded based on a public tender through channels set up between the Mapei Sport and Confindustria’s (the Confederation of Italian Manufacturing and Service Companies) Giuseppina Mai Foundation that promotes scientific research in the field of medicine, health and quality of life. A concrete tribute so that science applied to sport, of which Aldo Sassi was among the world’s leading exponents, can continue to grow, encouraging young people not to give up on believing in and fighting for those ethical and moral ideals that Sassi supported throughout his entire life.





Big Turnout for a Unique Sports Event

During Mapei Day sport becomes a festival for an entire community (the Bormio area and its inhabitants) at an event that neatly sums up the synergy between sport and territorial enhancement.

That is why the animal mascot chosen to symbolise this year's event – after the lammergeyer, marmot and fox over previous years – was the steinbock. This tenacious and acrobatic climber of rocks and steep slopes actually appeared on the official sports gear of cyclists and runners taking part in Mapei Day 2011. The facts and figures indicate the success of an event that is unique of its kind: six different races up Stelvio Pass for the participants in three different sports.

Despite the bad weather on Saturday 16th and Sunday 17th July 2011, almost 2200 people “officially” completed the 40 hair-pin bends, 21 km and over 1500 m drop separating the city of Bormio from Stelvio Pass. Of course dozens of others took part in the event without actually signing up

and wearing a start number.

The event, organised by Mapei in partnership with the Unione Sportiva Bormiese, was sponsored by the city of Bormio, Province of Sondrio and Lombardy Region in conjunction with the Mapei Sport Centre. The technical sponsors also included the Banca Popolare di Sondrio bank e Pirovano Ski University and other traditional sponsors of the event: Mic Shimano, Colnago, Santini, Bormio Terme, Enervit, Giussani and Limonta.

As we were saying, almost 2200 people completed the climb, but over 3000 people took part in all the events held over two days, including football, golf, skiing, cross-country running, mountain biking and – on the final day – roller skiing, half-marathon running and cycling. And if we count everybody connected with the Mapei event, then the total figure is well over 5000. Saturday also saw an extremely exciting challenge between young runners and bikers from the upper valley region. Launched last year as a side event for youngsters, this year the “Mini Mapei Day” was held in

the Monumental Park of the New Bormio thermal baths and spa resort. The event has been incorporated in the Mapei Day program to focus on sport for young people and to reward the work of those clubs that devote themselves to youngsters. A message that Mapei really likes and that shows once again how important it is to believe in and invest in the future.



GOLF TOURNAMENT

On Saturday 16th July, Mapei guests and customers challenged each other to a round of golf on Bormio Golf Club course, competing for the Mapei Day 2011 Trophy. Over the years this golf tournament has become an increasingly important event on the Bormio Golf Club calendar and a record number of 60 golfers from among Mapei guests and customers took part this year.

The players did battle over 18 holes in Louisiana foursomes. According to these rules two golfers play together and are entitled to choose the best ball after each shot. While 60 golfers did battle out on the course, Bormio Golf Club's youth team and Mapei staff organised a special 'Golf

In these photos.

Below, the winning team of the golf tournament and, right, Adriana Spazzoli, the Group's Operational Marketing & Communication Director, with her little granddaughter Matilde.



SKIING AT PIROVANO

Mapei Day also means skiing, and it could not be otherwise bearing in mind the golden opportunity the permanently snow-topped peaks of Stelvio Pass glacier offers all those Mapei guests who love the snow, allowing them to ski almost as if it were winter, even in the month of July.

Early in the morning, the snow, ski slopes and snow-park are all firm and compact, ideal for downhill skiing. On the other hand, when the thermometer shows it is several degrees above zero in the afternoon, the snow becomes damp and softer making it ideal for snowboarders and snow-parkers, who can have great fun in complete safety.

Once again this year, in this magical setting with cloudy skies but also plenty of sunshine, the traditional ski race took place. The giant slalom, whose course was, as usual, set by Pirovano Ski University, was won by Cesare Bertrand, while the women's event was once again won by Monica Beghini just like in 2010. Bruno Pezzato won the snowboard competition that was included in this year's Mapei Day for the first time.



Experience' challenge out on the driving range. From ten o'clock in the morning until five in the afternoon, guests were able to experience the gratifying sensation of hitting a few balls and watching them fly over a certain distance.

It is worth pointing out that the Mapei Trophy, which every year marks the start of the main season of events for Bormio Golf Club, has seen over 1000 people involved in the last five editions of "Golf Experience", allowing them to "get a first taste of golf". Here are the winners: the team of Mauro Maspero and Angelo Invernizzi won the Stableford handicap event while joint first prize in Category 1 of the Stableford scratch event went to the pairs Osvaldo Cella and Lorenzo Tomasi and Gaia Spreafico and Silvia Maria Corbetta.

THE 5-A-SIDE FOOTBALL TOURNAMENT

16 teams took part in the 2011 edition of the Mapei 5-a-side football tournament. The novelty at this year's event was the introduction of a preliminary round robin stage. It then became a knockout event from the quarter-finals onwards.

32 matches and - for the finalists - almost 3 hours out on the pitch playing six matches each lasting 25 minutes: here are some of the facts and figures about the 5-a-side football tournament where the Mapei Day 2011 Trophy was won by Pavi team who beat the Vinavil team (last year's winners) 4-2 in the final. Along the sideline, the encyclopaedic knowledge and verve of Alessandro Brambilla - the official commentator for every Mapei Day held so far - added something extra to the action out on the pitch, getting all the spectators involved and entertaining them.

Once again this year various departments of the Mapei family, suppliers and customers took part in the football tournament. But this was much more than just an ordinary "after work" tournament seeing as lots of the players involved play for amateur teams from all over northern Italy, and Igor Protti, one of the best Italian strikers in professional football over recent years, actually played for the Edilinvestimenti team. In previous years players from Sassuolo Football Club, (the team sponsored by Mapei that takes part in its fourth second division championship in Italy), also took part together with their manager at the time Pioli. Alongside the 13 Mapei teams there were also three representing Bormiese, Bormiese 5-a-side and Banca Popolare.



THE PARTY AT THE PENTAGONO



As usual the Mapei Gala Dinner was held at the Palapentagono in Bormio on Saturday evening with over 1000 guests invited to take part. Giorgio Squinzi, CEO of the Mapei Group, and Adriana Spazzoli, the Group's Operational Marketing & Communication Director, hosted the event together with Piero Melazzini, the President of Banca Popolare di Sondrio.

During the evening Alessandro Brambilla also took the stage to interview some of the sports guests, including executives from Sassuolo Football Club, notably the Chairman Carlo Rossi.



This page.
Selected moments from the gala evening held at the Palapentagono in Bormio on 16th July that was livened up by the comedians Ale & Franz (photo on the right).

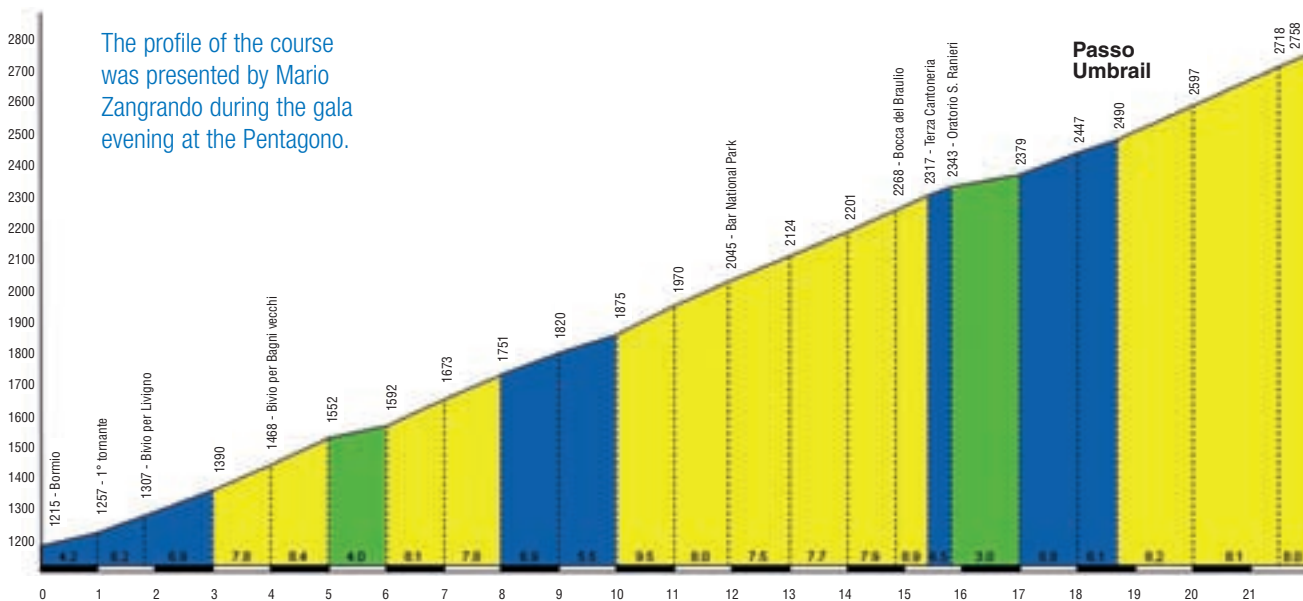


During the gala evening, while remembering Professor Aldo Sassi, jointly responsible for setting up Mapei Sport Centre together with Giorgio Squinzi, Dr. Claudio Pecci, the new head of the Centre, announced the institution of the “Aldo Sassi Study Grant”, which we already mentioned above. While paying tribute to the example set by Sassi and also Aldo Sassi the man, an emotional Dr. Pecci focused on the human qualities of the recently deceased scientist. These included the pleasure he took in playing the guitar and singing along with friends. One of the Italian singer-songwriters the pro-

fessor loved was Francesco Guccini and one of his favourite songs was “L'albero e io (The Tree and I)”. And a verse from this song “Cercate un albero giovane e forte (look for a young and strong tree....)” was printed on the back of the jerseys and T-shirts worn by participants at Mapei Day 2011 in remembrance of the Professor. A sort of send-off that is also a legacy and invitation to look ahead to try and bring out the best in young people and follow in his footsteps in the field of science applied to sport.

During a surprise finale Ale & Franz, two popular Italian cabaret artists, entertained guests with their gags. In accordance with the slogan “It is big to help the little”, the two artists got involved in the auctioning of racing bicycles. The money from this went to the three charities that Mapei has been supporting for some time now: Exodus, Archè, and the Piccola Opera di Traona per la Salvezza del Fanciullo. This was the grand finale to an evening that can once again claim to have simultaneously entertained all the guests and given them something to think about.

The profile of the course was presented by Mario Zangrando during the gala evening at the Pentagono.



Tommaso Vaccina (Athletic Club Terni) was back running up the hairpin slopes of the Stelvio; in 2008 he won in a time that he has now improved on by a good five minutes. His time of 1h 32'42''06 is the new course record. Coming in behind him were Pietro Colnaghi (CtI 3 Atletica) and a representative of Adm Ponte Valtellina, Enrico Benedetti, ahead of Gianluigi Martinelli. Ana Manu won the women's race for the second time. This powerful Romanian athlete, who runs for GS Gabbi Bologna, completed the course in 2h 03'08''60 ahead of Monica Carlin from Brema Running Team; third place went to Lorenza Combi from Runners Colico and fourth place to Giovanna Confortola from Marathon Club Alta Quota Livigno, first of the local athletes.



HALF-MARATHON

ROLLER SKIING

The world roller ski champion Simone Paredi (from the Italian Army) doubled up on last year's win, completing the uphill half marathon in a time of 1h 20'48''31; coming up behind him were Eugenio Bianchi (Brianza Skiroll) and Francesco Rossi from Polisportiva Valmalenco. The women's race was dominated by Natascia Leonardi Cortesi (SC Bedretto), following in the footsteps of Ursina Badilatti, who won last year. Cortesi's time was 1h 50'43''46, a couple of minutes slower than Badilatti, who set the course record last year. Second place went to the Italian Michela Ponza from Fiamme Gialle, and third to Erika Bettineschi from Brianza Skiroll. Fourth place went to a member of the Italian biathlon team, Michela Andreola, who was the first local athlete to cross the line.





RE STELVIO CYCLING RACE

The history of Re Stelvio is, above all, a story about cycling. It has been hosting one of the classic races for amateurs and climbers for 27 years. For the last seven it has been decorated with Mapei's colours, the 40 hairpin bends are marked with panels evoking Mapei's heyday in the world of cycling. Two years ago it has been dedicated to the sorely missed Franco Ballerini and, this year, to Professor Aldo Sassi. As well as cyclists and cycling lovers, it also attracts people who are passionate about period bicycles and cycling gear, some of them riding tandems or even monocytes; on a day totally dedicated to sportsmen and women (not necessarily competitors) the hairpin bends of the 200-year-old Stelvio road witnessed and applauded everything and everybody. Alessandro Magli (GS Barcella) raised his arms in the sign of victory as he crossed the line at the "Coppi Summit" (the highest point on the course named after the legendary Italian cyclist Fausto Coppi) all alone, in a time of 1h 03'23"34, very close to the course record.

Second place went to Nicola Golinelli, the skyrunning champion who decided to take to his bike to represent Cral Banca

Popolare di Sondrio, who finished ahead of Cristian Pinton (Keteam). Marina Ilmer doubled up on her previous year's win, confirming she is the queen of the Stelvio Pass. The rider representing Vinschgau finished ahead of Claudia Wegmann and Martina Egger; the two cyclists from US Bormiese, Elisa Fleishmann and Valeria Bradanini, finished just off the winner's podium.

Mapei Bike Ride

Almost 900 sportsmen and women peddled up from Bormio to the Stelvio Pass on the Mapei Bike Ride, as well as dozens who had not officially entered the race. Each year more and more people take part, showing that Mapei's colours and sporting tradition are still a benchmark for all cycling and sports lovers in general.





Thanks to the combined efforts of staff from Mapei SpA Marketing Department and lots of volunteers from US Bormiese, the little square at Stelvio Pass was transformed into a reception area for all the athletes, who, at the end of the race, were able to freshen up, take a hot shower, and change into their own clean clothes.

PRIZE-GIVING

As usual, once again this year the prize-giving ceremony took place on late Sunday afternoon in Piazza Cavour (or Piazza del Kuerc, as it is also called), the main congregation area in Bormio, famous for the buildings surrounding it, notably the parish church, Torre delle Ore, and the construction from which it takes its name, the Kuerc, which in the Bormio dialect means 'lid'. The ideal place for drawing the event to a dazzling close, awarding all the prizes in a healthy smiling winners in a healthy sporting environment and friendly atmosphere that brought two days of intense sporting competition and joy to a fitting close. Days spent in the name of Mapei and



the values it conveys to anybody dealing with the Company. Days that also had that old-fashioned flavour of a community that gets together to remember everything it has achieved together and the people that make it great, ready to plan an even better future.

To do this it takes tenacity, the kind of tenacity associated with the steinbock, the cleverly chosen symbol for the seventh edition of Mapei Day.

A quality that has always been one of Mapei's hallmarks, because it takes tenacity to reach great heights without fearing the obstacles that lie ahead, and only with tenacity can you become a great player on the world stage.

Harmony born from
a **solid bond** resistant
to the rigours of life.

Mapetherm[®] Tile System

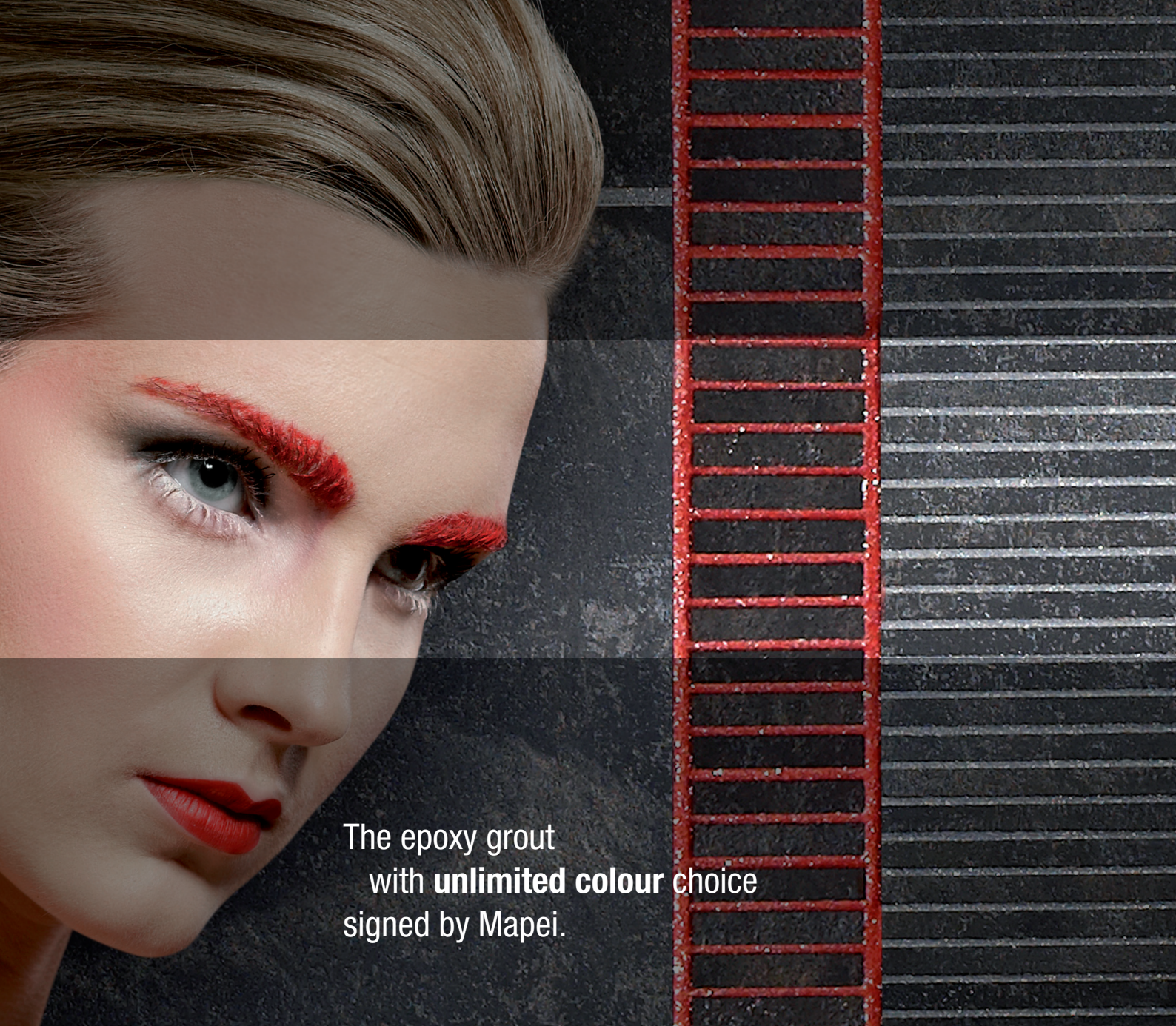
Mapei research has perfected a new thermal insulation system suitable for laying **thin ceramic tiles**.



Mapei. Our experience provides your solutions.

Let's take a deeper look together at: www.mapei.it



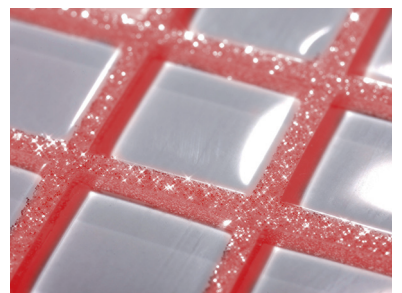


The epoxy grout
with **unlimited colour choice**
signed by Mapei.

Kerapoxy Design®

Kerapoxy Design® is a highly decorative grout which enhances the most precious ceramic tiles and mosaics. With a translucent effect, it is bright, durable and easy to apply. It is available in an unlimited range of colours that can be mixed to each other and also to **MapeGlitter** metallic coloured glitter to create special aesthetic effects.

Kerapoxy Design®: no explanation required, the name speaks for itself.



Mapei. Our experience provides your solutions.

For further information see www.mapei.com



Special Feature trade fairs



MAPEI

Our experience
provides your solutions.

CERSAIE

MARMOMACC

SAIE
INTERNATIONAL BUILDING EXHIBITION

MADE expo



CERSAIE 2011

Once again this year Mapei has kept up its reputation as a key player in major communication events connected with the world of ceramics and building. For Mapei, the International Exhibition of Ceramic Tiles and Bathroom Furnishings has always meant internationality and cultural analysis on a sweeping scale with distinctly commercial connotations connected with an industry that is constantly changing with every passing year. Mapei's presence at the 29th edition of Cersaie (that took place from 20th to 24th September 2011) certainly paid off, as the exhibition once again asserted its worldwide leadership in trade fairs devoted to ceramics and bathroom furniture. There were 965 exhibitors from 31 countries, 265 from abroad. The 'actual visitors' were 113,165, a rise of +0.8% compared to the figure of 112,292 at the previous edition. More specifically, it can be seen that there was an increase in the number of foreign operators from 43,939 to 45,616 (+3.8%) and also a rise in the number of paying entrants

(+5%, totalling 2,714). In contrast the number of Italian operators dropped by almost 900 (-1.4%), totalling 64,132. The opening conference entitled "Living with an Evolving Market" and the Ceramics of Italy International Press Conference attended by 180 journalists from all over the world, both held on the first day, were a real hit with the general public. The "Building, Dwelling, Thinking" conventions and symposiums were particularly well attended by architects, designers and students. Almost 1000 people attended the *Lectio Magistralis* given by the Japanese architect Kazuyo Sejima and "Lessons in Reverse" given by the Italian architect and designer Alessandro Mendini, while every single seat at the Galleria dell'Architettura was taken for the meetings with the Italian actor and filmmaker Giorgio Bianchi and the architect Renzo Piano to discuss architecture in New York. The "Ceramics of Italy. Metamorfosi" held in outside area was also all well-attended, after having been hosted at the Milan Triennale Design Museum during the Furniture Show (see the article published in *Realtà Mapei International* no. 35). It also included "Padam" installation designed by Diego Grandi and completed with Mapei products.

end of the conference. This award, which has now reached its 15th edition, was for the best report on Cersaie 2010 and the Italian ceramics industry published in a foreign magazine. Of the 170 articles that were entered, published in 71 different magazines in 18 different countries, this edition's winner was the South African journalist Marlene E. van Rooy, the editor-in-chief of *Walls & Roof in Africa*. The Confindustria Ceramica Distributor Award 2011 was also awarded during the Cersaie Gala Evening held on Wednesday, 21st September. This award goes to ceramics distributors who have been particularly outstanding in their business relations with Italian manufacturers. The winner for Italy was the Venice-based company Heraclia Pavimenti, for France it was Mattout Carrelage from Marseille, for Germany it was Wabo Fliesenfachhandel GmbH from Langenfeld and for the Netherlands Teunissen & Becking B.V. based in Almelo.

Mapei: the Complete Package

Cersaie remains an extremely important opportunity for Mapei to come into contact with the Italian and foreign ceramics markets. The explicit message that Mapei sent out at Cersaie, in accordance with its global communications policy, is quite simple: "Create your project with Mapei. Your Sole Partner in the building industry". This slogan mirrors the Company's nature: with 15 product lines which interact with each other and more than 1,400 products, Mapei is currently the largest manufacturer in the world of adhesives and chemical products for the building industry. Again this year there were two areas where visitors could take a closer look at the quality of Mapei systems. In the main stand, located in external area 45, stand n. 18, on more than 800 m² on two floors visitors found a comprehensive display of a complete range of products for smaller jobs to large building site works, with systems developed by Mapei to meet any requirement that professional layers have to face in industrial, commercial and residential projects. Beside, in the demonstration area, which covered approximately 160 m² in the external area n. 45, stand n. 54., every day courses for laying and applying Mapei products were held.

Environmental Responsibility and Experience

"Mapei. Our experience provides your solutions": this was the slogan written under the Company logo at the stand entrance. It obviously referred to its wide range of products

Thermal Insulation

Thermal insulation systems ensuring high performance and high aesthetic value

new Mapetherm® Tile System



L'armonia che nasce da un **legame solido** resiste alle intemperie della vita.

Harmony born from a **solid bond** resists to the rigours of life.

La ricerca Mapei ha messo a punto un nuovo sistema di isolamento termico a cappotto per gli edifici che permette l'applicazione di pietra naturale e rivestimenti ceramici, in particolare per il gres porcellanato di spessore sottile.

Mapei research has perfected a new thermal insulation system for buildings suitable for laying natural stone and ceramic coatings, especially thin porcelain tiles.



Fugature industriali epossidiche Industrial epoxy grouts



Funzionalità e resistenza
per tutte le esigenze

Functionality and resistance,
to meet all requirements

Fughe Mapei: la scelta migliore
per ogni ambiente di lavoro.

Una linea completa di stuccature epossidiche per l'incollaggio e la stuccatura di piastrelle in ambienti speciali, sia residenziali sia industriali, sottoposti a tutti i tipi di traffico e che soprattutto richiedono un'elevata resistenza chimica.

Mapei grouts: the best choice,
for all work environments.

A complete range of epoxy grouts for bonding and grouting tiles in demanding residential and industrial environments subjected to all types of traffic, and which particularly require high resistance to chemicals.



MAPEI

Grouts for Joints

A complete range of epoxy and cementitious mortars for grouting joints in all kinds of environments (commercial, public, industrial, etc.)



and the long experience in the field as the Company will soon celebrate its 75th anniversary. A point worth remembering is how Mapei's commitment is reinforced by research programmes to develop products with a very low emission level of volatile organic compounds (VOC) without solvents to improve wellbeing in the buildings where they are used.

These belong to the ECO range of products, launched in the 1990s on the American market in compliance with CRI (Carpet and Rug Institute) criteria and certified by GEV (Gemeinschaft Emissionskontrollierte Verlegetwerkstoffe, Klebstoffe und Bauprodukte e.V.), two bodies which check emission levels from products for floors. Since October 2005, all Mapei's eco products have EMICODE EC1 and EC1 R (very low emission level of volatile organic compounds) certification, and since June 2010 the EMICODE EC1 PLUS and EMICODE EC1 R PLUS mark. Beside, Mapei continues developing the widest range of products which respect LEED regulations for the certification of buildings. More than 150 Mapei products meet LEED requirements and are identified with the "Green Innovation" logo.

Energy Saving

New projects in the building world are requiring more frequently the application of thermal solutions which guarantee very high performance levels, yet with a particular eye on its aesthetic value. This is why Mapei research has perfected MAPETHERM TILE SYSTEM, the thermal insulation system which makes it possible to apply ceramic and natural stone coverings, and large, thin tiles in particular. Mapei's application to the sector of materials for coating façades, and its technical competence and knowhow in structural strengthening, has led to the Company developing a coating and application system for EPS and XPS panels, characterised by high mechanical strength and low modulus of elasticity, with the capacity to bear the weight and stresses generated by the coatings and by thermal expansion. An adhesive particularly suitable for this system is ULTRALITE S2, a one-component, lightweight cementitious adhesive ideal for laying thin porcelain tiles.

Soundproofing

Mapei was present at Cersaie 2011 with MAPESONIC CR, an under-floor soundproofing system specially dedicated to ceramic and natural stone floors, applied in a thin layer to efficiently counteract the transmission of noise

Perfect Installation

Cutting-edge technology for laying large-size thin porcelain tiles

new Ultralite S2

Il monocomponente che alleggerisce la posa dei grandi formati.

The one-component adhesive that lightens the laying of large sizes.



Adesivo cementizio monocomponente alleggerito a tempo aperto allungato (C2E S2).
Ideale per la posa in opera del gres porcellanato sottile.
Altamente deformabile (Classe S2)
Altissima resa (+80%)
Elevata capacità bagnante
Facile spatolabilità

One-component, lightweight cementitious adhesive with extended open time (C2E S2).
Ideal for laying thin porcelain tiles.
Highly deformable (Class S2)
Very high yield (+80%)
High buttering capacity
Easy application by trowel

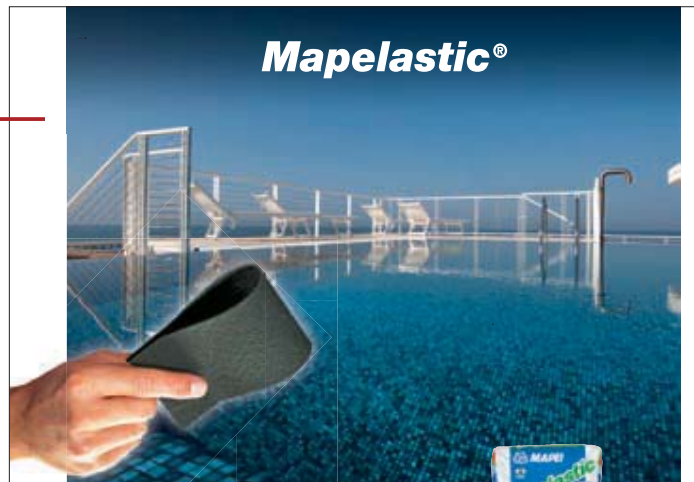


MAPEI

Waterproofing

The widest range of products and accessories for guaranteeing the best results

Mapelastic®



The best-selling certified waterproofing system in the world.

Two-component, flexible cementitious mortar for protecting and waterproofing concrete surfaces, balconies, terraces, bathrooms and swimming pools.



MAPEI

In the demonstration area, every day courses for laying and applying Mapei products were held.



through floor slabs caused by footsteps. The sheets are made from recomposed cork and rubber bound together with a high quality polyurethane composite. They may be laid directly on any type of substrate and also on old floors, before laying any type of coverings material (ceramic, stone, parquet and resilient materials).

Certified according to current norms with a very low emission level of VOC (EMICODE EC1 PLUS), apart from offering an efficient barrier against the noise of footsteps, MAPESONIC CR is also thin (available in thicknesses of 2 and 4 mm) and easy to install; it may be applied immediately before laying the new floor covering as well as on heated floors. MAPESONIC CR and MAPESILENT SYSTEM (system for soundproofing against the noise caused by footsteps, particularly suitable for new buildings because it is applied directly on concrete floor slabs) are the best systems available on the market for soundproofing ceramic and stone materials floorings.

Waterproofing

The entire range of products from the MAPELASTIC family (MAPELASTIC, MAPELASTIC SMART and MAPELASTIC AQUADEFENSE) was presented at Cersaie as the most durable system available against damage caused by the infiltration of water. In particular, MAPELASTIC AQUADEFENSE is the ideal product for rapid waterproofing of



balconies, bathrooms, showers, saunas and damp environments in general before laying ceramic, stone and mosaic coverings. Created for both small and large building projects, speed and easy application are the main advantages of MAPELASTIC AQUADEFENSE. The efficiency of waterproofing products is also guaranteed by the complementary products which complete the system, including MAPENET 150, MAPETEX SEL, MAPEBAND and MAPEBAND TPE.

All MAPELASTIC products integrate perfectly with DRAIN KIT, comprising DRAIN VERTICAL and DRAIN LATERAL, used to line vertical and horizontal floor drains, ideal to drain off water from terraces, balconies, wash-rooms, etc. The kit includes a special anti-odour plug which completely stops any unpleasant smells from returning up through the drain if there is no water present.

And let's not forget DRAIN FRONT, the TPE

angular pipe union for terraces and balconies in boxes of 5 pieces, available in two trendy colours, copper and ivory.

Joints and Sealants

For the world of grouting, mortars Mapei introduced at Cersaie 2011 a fresh look for grouts and sealants. A special mention goes to KERAPOXY DESIGN two-component, decorative epoxy mortar, available in an unlimited range of colours, ideal for grouting joints of glass mosaic. It may be mixed with MAPEGLITTER metal-effect coloured glitter to create an even more special and amazing look. MAPEGLITTER is available in silver, light gold and in 22 other colours upon request from clients.

ULTRACOLOR PLUS is a grout preventing the formation of mould in damp environments, which in September 2011 was awarded a prize in the city of Ulm (Germany) for "The best

innovative product in 2011" by Fachverband Fliesen und Naturstein (the German association of ceramic and natural stone tiles).

For industrial environments, Mapei re-proposed the entire KERAPOXY range of epoxy grouts for joints, particularly suitable for grouting tile joints in special environments which require high chemical resistance. The product range includes KERAPOXY SP, KERAPOXY CQ, KERAPOXY IEG and KERAPOXY P, products with excellent resistance to acids and very good cleanability.

Coloured Sealants and Coatings

Also highlighted at Cersaie 2011 exhibition, the complete, certified range of Mapei coloured sealants (available in 27 colours), ideal for creating finishes and details which exalt the quality of any work carried out. Amongst these products are MAPESIL AC, MAPESIL Z, MAPESIL Z PLUS and MAPESIL LM.

Mapei's aim is to propose the Company as a reference point for all problems in the building industry, so it was on show at Cersaie with other ranges of finishing products, such as wall coatings, resin and cementitious floorings and products for laying wood. Mapei also presented the adhesive ULTRABOND S955 1K for laying parquet in combination with the soundproofing system to reduce the noise of footsteps.

The next edition of Cersaie will again be held in Bologna from the 25th to the 29th September 2012.

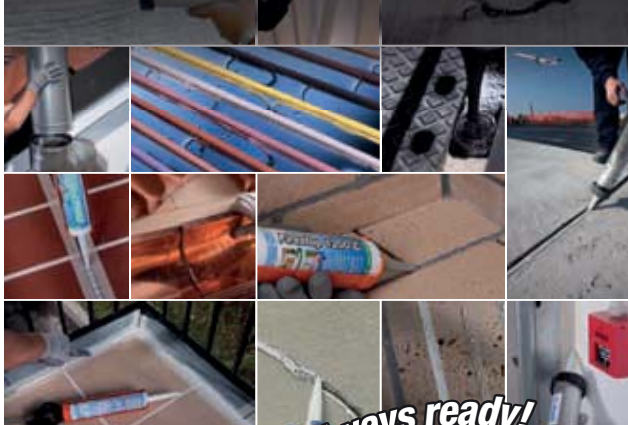
Sealing

A wide range of certified coloured sealants

Laying Solutions

Specific products for a perfect installation of any kind of ceramic and stone material

Elastic Sealants and Adhesives



Always ready!

For easily and safely sealing and bonding all construction elements.

- Acetic Silicone
- Neutral Silicone
- Polyurethane
- Acrylic and Bitumen
- Hybrid

Mapei develops and produces elastic sealants and adhesives for all professionals in the building industry.



Adesivi per ceramica e materiale lapideo Ceramic tile and stone material adhesives



Uno per uno tutti per te!

One and all, all for you!

Da Mapei la migliore offerta di adesivi per la posa a pavimento e a rivestimento: prodotti sofisticati nella formulazione ma sempre più semplici nell'uso e in grado di durare nel tempo, più adatti in ogni situazione ad ogni latitudine.

Mapei offers the best range of adhesives for wall and floor coverings: advanced formulations, easy to use and excellent durability, suitable for all environments and applications.





MARMOMACC

ARCHITECTURE AND DESIGN

2011

In the region of Puglia, southern Italy, the walls in the ancient centre of the city of Lecce have a golden hue, which is the effect of the type of stone used to construct the old houses. This rock is called Leccese stone, also known as Leccisu in the local dialect. It originates from limestone, has an amber colour, similar to honey, and is easy to model and work. Further to the north in Rome, more than 100,000 m³ of Travertine stone, a sedimentary limestone rock which to this day is still extracted from the quarries around the town of Tivoli (in the Lazio region in central Italy), was used to construct the Colosseum, one of the most imposing and still standing antique monuments. If we go further up the Italian peninsula towards Tuscany, we can find the grey Pietra Serena sandstone, often favoured by the Italian architect Brunelleschi, or Pietraforte, an ochre sandstone used for many monuments in Florence, Lessinia limestone used to adorn the Verona Arena, the solid Trachite sandstone from the Euganei Hills in Veneto, the so-called "Bolognini" or "Sanpietrini" porphyry, Bianco di Carrara white marble, without forgetting the tuff from the Campania Region, Noto stone from Sicily and an array of volcanic granite. So it comes as no surprise that every year for the last 46 years a kind of international celebration of these antique construction materials has taken place in Italy. The event is called Marmomacc, International Exhibition of Stone, Design and Technology, and this year was held from 21st to 24th of September at the Veronafiere exhibition centre in Verona. More than 56,000 visitors, and over 1,500 exhibitors from many countries from around the world gathered to trace the route that natural stone has taken to arrive in the cities: from the machinery used to extract and handle the blocks of rough stone, to the cutting and increasingly complex treatment cycles to protect the stone, right up to laying floor and wall coverings in our homes. This year also registered the presence of delegations and exhibitors from numerous foreign countries. Mapei was present at this important event with its own stand in Pavilion 7.

The first step for a proper installation of stones is choosing a suitable adhesive for the type of stone you wish to bond, because not all stone is the same. Mapei systems on offer are the result of the research and experience gained in Italy, and also of the expertise

acquired in the countries where the Company operates. Mapei offers cementitious adhesives with improved bonding strength available, or water-free resin (epoxy-polyurethane based) adhesives (GRANIRAPID, ELASTORAPID, MAPESTONE SYSTEM, KERALASTIC). The Company also supplies both normal-setting and rapid-setting adhesives to bond stone quickly, or to avoid any staining and warping,

particularly with certain types of stone. A correct laying system must also take into consideration the substrate on which the floorings or coverings have to be bonded. Mapei offers products for screeds, smoothing and levelling compounds and waterproofing products characterised by high mechanical strengths, excellent workability and, above all, very short drying and curing times.

In the morning on the 22nd of September, a conference was held in the Veronafiere Congress Centre on "Designing with Natural Stone 2011: a Continuing Education Program on Natural Stone Materials, From Quarry to Installation", organised by Veronafiere in collaboration with the AIA (American Institute of Architects).

More than half the participants at this seminar, which included architects and designers from the Far East, Canada and the United States, were invited by Mapei Corporation, the US

subsidiary of the Mapei Group. The seminar involved delegations from companies dealing with the extraction and final protection of stone, with the section discussing the laying stone presented by Michael Granatowski, Mapei Corp.'s (the U.S. subsidiary of the Mapei Group) USA National Manager for Architectural and Commercial Projects. The aim of this presentation was to define the reasons why a certain laying system should be chosen as opposed to another one. Indeed, Mapei offers to all its clients, be they designers or construction companies, technical reasons for recommending or choosing certain adhesives, substrate materials or smoothing compounds. Michael Granatowski demonstrated the importance of having an overall view of laying systems for natural stone, in order to accommodate both the aesthetic requirements of a project and the technical dictates of the materials.

Complete Systems

MAPESTONE SYSTEM was especially developed for laying architectural stone floors in historical city centres

MAPEI

Dalla nostra esperienza tutte le soluzioni per voi.
Our experience provides your solutions.

Sistema per la posa di porfido e lastre a spacco
System for laying porphyry and interlocking stones

Piazza del Duomo, Gemona del Friuli (UD), Italia
Dome Square, Gemona del Friuli (UD), Italy





SAIE 2011

INTERNATIONAL BUILDING EXHIBITION

BolognaFiere achieved good results at Saie 2011, International Building Exhibition, from 5 to 8 October, 2011, held for the first time simultaneously with MADEexpo in Milan.

As Duccio Campagnoli, President of BolognaFiere, explained, "With regard to construction, machinery, technologies, materials, yards and yard services, Saie was again confirmed the Italian exhibition of reference, with 1,044 exhibitors, over 70,000 m² of utilised space (200,000 m² total), and 85,000 visitors (including almost 5,000 from foreign countries)".

"As always," he continued, "Saie was a valuable and important initiative for the industry, as demonstrated by the presence of so many Italian trade associations such as ANCE (the Association of Italian Building Companies), and major companies offering software and services for designing and building".

The event was equally important for Bologna, with the organization, in cooperation with government offices and the Orders of Architects and Engineers of Bologna of Saie OFF in Bologna downtown, which presented over 40 events and discussions on city planning, sustainable urban redevelopment, and energy efficiency, including the *Lectio Magistralis* by the Spanish architect Oriol Bohigas and the international design award for young architects. The exhibition again included three Theme Areas, namely SAIE ENERGIA & SOSTENIBILITÀ devoted to energy saving and eco-sustainability, SAIE CANTIERE & PRODUZIONE focusing on the building site and production, and SAIE SERVIZI devoted to specialized services for the building industry.

Mapei at Saie 2011

In its exhibition area at Saie, Mapei again presented itself as a Sole Partner in the building industry.

Just like it was the case in Cersaie, there were two areas where visitors could take a closer look at the quality of Mapei systems: the main stand with more than 800 m² on two floors, and the demonstration area of approximately 160 m².

All the Mapei solutions on show supplied answers to all the needs of today's building industry and the requests from final clients: products and systems certified according to the most severe current norms, which guarantee the durability of work done, improve living comfort, favour energy savings and respect

the environment.

Saie again highlighted Mapei's commitment for the environment. This commitment is backed up by research programmes: as the construction sector increases its understanding of "green" buildings, the Company has developed and continues developing the widest range of products which respect the LEED (Leadership in Energy and Environmental Design) regulations for the certification of buildings, developed by the Green Building Council.

Mapei range currently includes more than 150 products which meet the LEED requirements and are identified with the "Green Innovation" logo.

Admixtures for Concrete

At Saie, Mapei re-proposed its large family of admixtures for ready-mixed concrete and solutions for pre-cast concrete: for ready-mixed concrete, CHRONOS, MAPECRETE SYSTEM superplasticizers and the vast MAPEFIBRE range of anti-crack mono-filament polypropylene fibres; for pre-cast concrete, DYNAMON NRG and MAPEFORM ECO, the brand new line of demoulding agents in water emulsion for improved surface appearance.

Concrete Repair Solutions

For this range, at Saie 2011 Mapei presented the super-versatile, high-performance PLANITOP SMOOTH & REPAIR, a single product for smoothing and repairing concrete with durable, certified results.

PLANITOP SMOOTH & REPAIR is a quick-setting, fibre-reinforced, controlled-shrinkage thixotropic mortar, and is applied in various thicknesses of from 3 to 40 mm in a single layer. PLANITOP SMOOTH & REPAIR is a perfect match for the Mapei system for protecting and repairing the front edges of balconies.

Structural Strengthening Products for Concrete and Masonry

Mapei also displayed a complete range of products made using basalt fibres (100% recyclable and with a lower emission level of CO₂).

The range includes MAPEWRAP B UNI-AX unidirectional high strength basalt fibre fabric and MAPEGRID B 250 primed basalt-fibre mesh made for structural strengthening of stone, concrete, brick and tuff surface.

Also worth remembering is the Mapei over-turning system for claddings (MAPEGRID G120+PLANITOP HDM).

Innovation

From Research & Development laboratories eco-sustainable and high-performance products for all the building needs

Solutions for the precast industry

new

Mapeform Eco

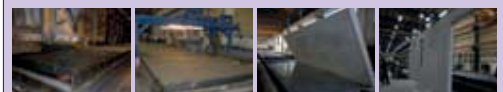
New range of emulsion based demoulding agents.

- Mapeform Eco 91
- Mapeform Eco 61
- Mapeform Eco 31

Dynamon NRG

New complete range of superplasticizers with excellent performance for fluid concrete and SCC.

- Dynamon NRG 1010
- Dynamon NRG 1012
- Dynamon NRG 1014
- Dynamon NRG 1020



SPONSOR

ICCX EUROPE

INTERNATIONAL CONCRETE CONFERENCE & EXHIBITION

Bologna, 6-7 October

SAIE 2011 - Gallery on top of Halls 25/26



Planitop Smooth&Repair



1 single product
Saving time
Saving money

2 PRODUCTS
in 1

new



1 single product for smoothing and repairing concrete with durable, certified results.

Quick-setting, fibre-reinforced, controlled-shrinkage thixotropic mortar, for smoothing and repairing concrete, which is applied in various thicknesses of from 3 to 40 mm in a single layer. Thanks to the **waterproofing vacuum-packed bag**, the product may be safely stored for a long time.

Now also available in 5 kg packaging

MAPEI

Smoothing and Repairing

One single product for quick and long-lasting applications

Road Maintenance Systems

Mapei also presented high quality products for this sector, with systems suitable for sound, durable road maintenance work. The MAPEGROUT family is joined by the brand new MAPE-ASPHALT REPAIR 0/8, a one-component, ready-mixed, cold-applied reactive asphalt for repairing holes in roads. Thanks to this product, repairing roads and motorways is made much more simple, and without even interrupting the flow of traffic, with considerable economic and social benefits.

Chemical Anchoring Products

An absolute novelty from Mapei at Saie 2011 was the range of products to overcome problems encountered on site when anchoring light, heavy and structural loads. The MAPEFIX range includes MAPEFIX PE SF, MAPEFIX VE SF and MAPEFIX EP, three simple solutions for high-strength anchorage works ensuring safety for professionals and everybody. The products are certified according to ETA regulations and were awarded the CE mark guaranteeing reliable performances.

Sealants Range

For all professionals in the building industry, Mapei presented its huge range of sealants, particularly useful for a sound bond of all construction elements. At Saie 2011, Mapei highlighted MAPEFIL 300°C, an acetic silicone sealant for high temperatures with thermal resistance which follows the movements and expansion of sealed elements. (Mapei has chosen to produce this sealant in black, much easier to integrate with the colours normally used for building materials) MAPEFLEX MS 45, hybrid adhesive and sealant with high modulus of elasticity, used for sealing expansion, fillet and distribution joints on horizontal and vertical surfaces; MAPEFLEX BLACKFILL, a bituminen sealant for maintenance work on bitumen membranes; MAPEFLEX FIRESTOP 1200°C, refractory grout which guarantees a fire and smoke-proof seal.

Anchoring Products Range

The sealants range is completed with Mapei anchoring products, all certified according to European UNI EN 1504-6 and ETA (European Technical Approval) standards, which include MAPEFILL R, MAPEFILL F, MAPEFILL MF, MAPEFILL 610, PLANIGROUT 300 and EPOJET. Amongst the characteristics worth pointing out are their excellent adhesion, high waterproofing properties and excellent resistance to chemicals.

Structural Strengthening

100% recyclable high strength basalt fibres for concrete and masonry

15 product lines for any kind of need and application in the building field



Systems for Structural Strengthening

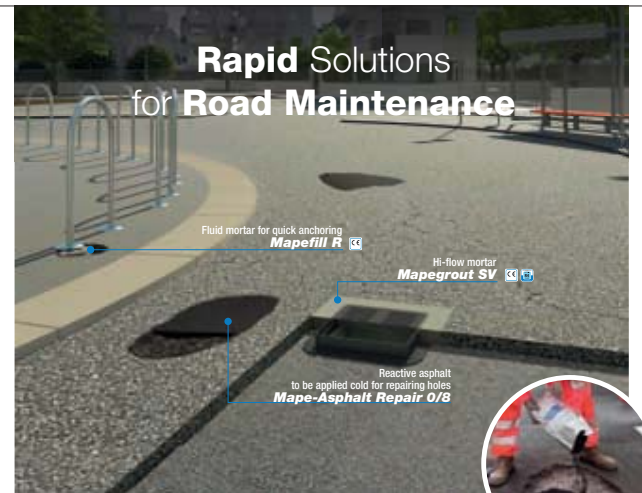
Systems and Products for **Structural Strengthening of Concrete and Masonry**.

Mapei offers a complete range of products made using **basalt fibres**:

- 100% recyclable;
- with a lower energy consumption during the production process (lower emission level of CO₂).



MAPEI



Rapid Solutions for Road Maintenance

Fluid mortar for quick anchoring
Mapefill R

Hi-flow mortar
Mapegrout SV

Reactive asphalt to be applied cold for repairing holes
Mape-Asphalt Repair 0/8

new

Mape-Asphalt Repair 0/8

One-component, ready-mixed, cold-applied reactive asphalt for repairing holes in roads.

Suitable for:

- repairing holes in roads without interrupting the flow of traffic
- repairing industrial floors and asphalt squares
- repairing pavements and car-parks



MAPEI



Soundproofing Range

To meet the problem of cutting down noise, Mapei has a well-proven, efficient system available: MAPESONIC CR, the under-floor soundproofing system applied in a thin layer which efficiently counteracts the transmission of noise through floor slabs caused by footsteps. MAPESONIC CR together with MAPESILENT SYSTEM form excellent soundproofing systems for ceramic and natural stone floors.

Once again from Mapei, advanced technology for all types of soundproofed and heating ceramic and stone floors, to guarantee stability, excellent deformability and durability over the years.



Waterproofing Range

The entire range of products from the MAPELASTIC family (MAPELASTIC, MAPELASTIC SMART and MAPELASTIC AQUADEFENSE) was presented at Saie as the most durable system available against damages caused by the water leakages. In particular, MAPELASTIC AQUADEFENSE is the ideal product for rapid waterproofing of balconies, bathrooms, showers booths, saunas and damp environments in general before laying ceramic, stone and mosaic coverings. Mapei also presented DRAIN system: the brand new kit used to create floor drains which integrates perfectly with all the products from the MAPELASTIC family.

Amongst the novelty products, the PURTOP line was highlighted: polyurethane/polyurea waterproofing membranes applied by spray directly on site. The main characteristics of this line are: excellent adhesion, immediate waterproofing (after 3-20 seconds), rapid laying, considerable strength and elasticity properties, good elongation capacity (even at -20°C). The products highlighted were: the hybrid polyurethane membrane for waterproofing roofs and coverings (PURTOP 600); the hybrid polyurethane membrane for waterproofing surfaces subjected to traffic, like roofs and bridges (PURTOP 400 M); the polyurea-based membrane for waterproofing hydraulic structures in general (PURTOP 1000).

Reliable, cutting-edge, high-tech solutions

Thermal Insulation Systems

From Mapei research, two systems which guarantee thermal insulation: MAPETHERM SYSTEM, the system with guarantees insulation with wall coatings, such as SILANCOLOR and SILEXCOLOR, and the brand new MAPETHERM TILE SYSTEM, the thermal insulation system which makes it possible to apply ceramic and natural stone coverings, and large-sized, thin porcelain tiles in particular. A product particularly suitable for this system is ULTRALITE S2, a one-component, lightweight cementitious adhesive ideal for laying thin porcelain tiles.

Wall Coatings Range

Mapei wall coatings are available in a wide range of colours using the ColorMap® automatic colour system, and have been developed specifically to be compatible with surface repair systems and to be fully compliant with the technological specifications for each single intervention. QUARZOLITE, SILANCOLOR, SILEXCOLOR, COLORITE, ELASTOCOLOR and DURSLITE feature excellence in coverage, ease of application, filling capacity, water-repellence, elasticity, resistance to UV rays, good transpiration and good washability.

Products for Restoring Masonry Buildings

The products from the MAPE-ANTIQUE range

Sealants

New products:

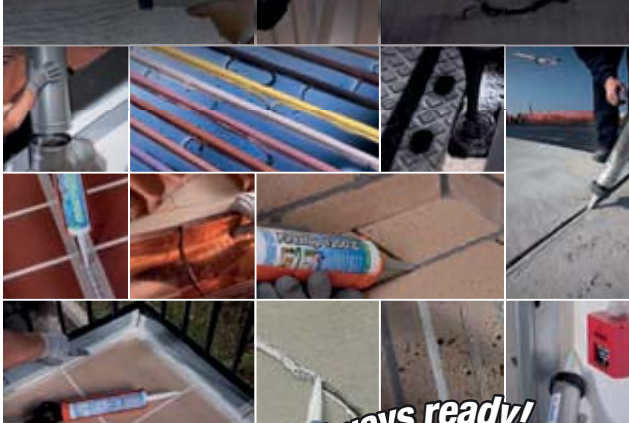
- MAPEFLEX MS 45
- MAPEFLEX BLACKFILL
- MAPEFLEX FIRESTOP 1200 °C



Resin and cementitious floorings

High mechanical strength and resistance to chemical agents

Elastic Sealants and Adhesives



Always ready!

For easily and safely sealing and bonding all construction elements.

- Acetic Silicone
- Neutral Silicone
- Polyurethane
- Acrylic and Bitumen
- Hybrid

Mapei develops and produces elastic sealants and adhesives for all professionals in the building industry.



Mapefloor System Ultratop System



Products and systems for building resin and cementitious floors, with high mechanical strength and resistance to wear, low emission level of VOC, ideal for both renovating existing damaged floors and building new floors.



– made from Eco-Pozzolan and completely cement-free – are particularly recommended for structures in buildings of historical interest. The MAPE-ANTIQUE range was presented in updated livery, with restyling of the graphics for the packaging and an even wider range with the addition of MAPE-ANTIQUE FC ULTRAFINE and MAPE-ANTIQUE FC GROSSO salt-resistant, transpirant skimming mortars made from lime and Eco-Pozzolan for finishing.

These smoothing compounds go to complete the dehumidifying cycle comprising MAPE-ANTIQUE RINZAFFO + MAPE-ANTIQUE MC, applied before painting the surfaces. MAPE-ANTIQUE INTONACO NHL, a transpirant base render suitable for both new and existing masonry, was also on the spotlight.

Industrial Floorings Range

Mapei also has special, dedicated systems for industry in general and the food industry. In particular, at Saie 2011 Mapei presented its new hardener for concrete floors: MAPETOP N AR6.

Thanks to its high mechanical strength and resistance to wear, this product is particularly suitable for use in industrial environments with a high rate of goods traffic.

Membranes and Insulating Systems by Polyglass

At Saie 2011 Polyglass, Mapei Group's sub-

sidiary specialized in the production of waterproofing membranes and insulating systems for the building industry, was present both at the Mapei stand and with its own POLYGLASS MOBILE, a top-level mobile show-room which is used all over Italy and abroad to inform people about the Company's most innovative technologies.

Polyglass displayed its complete range of bituminous and synthetic waterproofing products, characterized by ADESO technology for self-adhesive membranes and REOXTHENE technology for ultra-light membranes, as well as the new MAPEPLAN roofing and waterproofing synthetic membranes and the new line of special products.

Special Events

Mapei also took part in various events and activities at Saie 2011, and particularly the "ICCX-Industry Concept Conference for Concrete and Precast Concrete Producers", held on Thursday the 6th of October 2011.

The Company was also present in the area reserved for ANIT (the Italian Association for Thermal and Acoustic Insulation), at stand 25, with presentations of Mapei cutting-edge technologies developed for thermal insulation and soundproofing.

The next edition of Saie will be held in Bologna from 18th to 21st October 2012.

Definitely **anchored!**

Repairing Masonry

From Eco-Pozzolan cement-free products for restoring historical buildings



The best choice for **well-being** in building

A line of products made from Eco-pozzolan and cement-free for repairing masonry buildings.



An active presence in the trade fair: seminars and technical training courses for discovering the Mapei products' potential





MAPEI expo 2011

The fourth edition of MADEexpo, the trade fair which was held in Fiera Milano Rho from the 5th to the 8th of October 2011, closed with good results: 253,533 visitors (+4.7%) included 31,905 foreigners with a significant increase of 34%. This fair confirmed its role as a benchmark for the entire building and planning sector, a success that is even greater if one takes into consideration the ongoing crisis that is still weakening the construction market.

Visitors from foreign countries strongly increased, especially from overseas countries: +58% visitors from the Americas, +14% Asian visitors (with +28% of Russian visitors), and +19% African visitors.

More than 240 events held during the trade fairs highlighted the most important trends and subjects in the field of building and the will to work together to promote economic recovery.

Wall Coatings

Excellent technical properties and high performances ensure aesthetic value and durability

Protective and Decorative Wall Coatings



A wide product range for professional wall coatings, completing Mapei systems and ensuring aesthetic value and durability.

Quarzelite, Silanacolor, Silaxcolor, Colorite, Elastocolor and Dursilite feature excellence in coverage, ease of application, filling capacity, water-repellence, elasticity, resistance to UV rays, transpiration and washability.



Mapei at MADE expo

At MADEexpo 2011, this international event which conjugates design, architecture and building, Mapei used its main stand to present innovative technology, systems and products which meet all the requirements of designers, professionals and final users.

The Company was present with two stands in Pavilions 4 and 3 and in its permanent showroom.

Mapei's commitment to the environment was highlighted. More than 70% of research funds are invested into the development and production of eco-sustainable products. These products are part of the Mapei "ECO" range and are certified EC1, EC1 R, EC1 PLUS EC1 R PLUS, certifications awarded to all products with a very low emission level of volatile organic compounds (VOC) awarded by GEV (Gemeinschaft Emissionskontrollierte Verlegewerkstoffe, Klebstoffe und Bauprodukte e.V.), the association which checks emission levels of products used for flooring, adhesives and products for building.

Restoration of Masonry Buildings

The products from the MAPE-ANTIQUÉ range – made from Eco-Pozzolan and completely cement-free – are particularly recommended for structures in buildings of historical interest. At MADEexpo, the MAPE-ANTIQUÉ range was presented in updated livery, with restyling of the graphics for the packaging and an even wider range with the addition of MAPE-ANTIQUÉ FC ULTRAFINE and MAPE-ANTIQUÉ FC GROSSO salt-resistant, transparent skimming mortars made from lime and Eco-Pozzolan for finishing.

These smoothing compounds go to complete the dehumidifying cycle comprising MAPE-ANTIQUÉ RINZAFFO + MAPE-ANTIQUÉ MC, applied before painting surfaces.

MAPE-ANTIQUÉ INTONACO NHL, a transparent base render suitable for both new and existing masonry, was also on the spotlight.

Concrete Repair

Mapei highlighted PLANITOP SMOOTH & REPAIR, a quick-setting, controlled-shrinkage, fibre-reinforced cementitious mortar applied in a single layer. Thanks to this product, ideal for repairing the front edges of balconies, it is now possible to repair and smooth over concrete with a single rapid, durable, certified product.

Protection for Concrete

MAPESHIELD, Mapei's system for galvanic

cathodic protection, made up of pure zinc anodes, was also on display at MADEexpo 2011, offering protection against corrosion in reinforced rods and concrete and metallic structures exposed to aggressive agents. MAPESHIELD anodes may be applied on both new structures and those under repair, and increase the duration of reinforced concrete in new structures by up to 38 years and repair work by up to 20 years.

Structural Strengthening

Mapei also proposed a complete range of technologically innovative products made from 100% recyclable basalt fibres, for structural reinforcement. Amongst these products there are MAPEWRAP B UNI-AX uni-directional, high-strength basalt fibre fabric, and MAPEGRID B 250 primed basalt fibre mesh, for structural reinforcement of stone, brick, tuff and concrete substrates.

Admixtures for Concrete

Present as always was the range of admixtures for concrete for major works and infrastructures: integrated solutions for the cement-concrete manufacturing sector to reduce consumption of non-renewable raw materials, to reduce the level of CO₂ emissions and extend the working life of structures. Amongst the various product ranges, the complete DYNAMON NRG range stands out with its high-performance superplasticisers for fluid concrete and self-compacting concrete.

Waterproofing

Mapei proposes specific products and systems for the widest range of requirements for the waterproofing sector: to protect structures below ground level, dams, viaducts, roofs and coverings, balconies, terraces, health centres etc. from water.

The strong point as ever was MAPELASTIC, a two-component, flexible cementitious mortar for protecting and waterproofing concrete surfaces, balconies, terraces, bathrooms and swimming pools.

Particular attention was also paid to MAPELASTIC AQUADEFENSE, a ready-to-use, flexible liquid membrane, ideal for rapid waterproofing of damp environments.

Mapei also presented the DRAIN system: the brand new kit used to create floor drains which integrates perfectly with all the products from the MAPELASTIC family. Amongst the novelty products, the PURTOP RANGE was highlighted: rapid waterproof membranes applied by spray with excellent adhesion, waterproofing, strength and elasticity.



Definitely **anchored!**

new Mapefix

The new Mapei range of **certified chemical anchoring products** for all the needs of designing and building.

Mapefix PE SF

FOR LIGHT LOADS
ON FULL OR REPREPARED
SUBSTRATES

styrene-free polyester

Mapefix VE SF

FOR HEAVY LOADS
ON ALL SUBSTRATES

styrene-free hybrid vinyl resin

Mapefix EP

FOR STRUCTURAL LOADS
ON ALL SUBSTRATES

pure polyester resin



**Mapesilent
Mapesonic CR**



The joy of **silence**,
experience the true meaning of **wellbeing**.

From Mapei **Mapesilent System** and **Mapesonic CR**,
the excellent **soundproofing systems**
for wooden floors to **reduce the noise of footsteps**,
and easy to design and apply.



Soundproofing

To reduce the problem of cutting down noise, Mapei displayed a well-proven, efficient system: MAPESONIC CR, certified EC1 PLUS, an under-floor soundproofing system applied in a thin layer which efficiently counteracts the transmission of noise caused by footsteps. MAPESONIC CR together with MAPESILENT SYSTEM form excellent soundproofing systems for ceramic and natural stone floors, and obviously for wooden floors too.

Coatings

Mapei wall coatings stand out from the other manufacturers on the market thanks to their elevated technical quality and high performances, to guarantee always, and in all cases, good looks and durability. The QUARZOLITE, SILANCOLOR, SILEXCOLOR, COLORITE, ELASTOCOLOR, and DURSILITE ranges offer excellent coverage, easy application, filling capacity, water-repellence, elasticity, resistance to UV rays, good transpiration and good washability.

Amongst the new products, Mapei proposes SILANCOLOR AC PAINT acrylic-siloxane water-repellent paint with high resistance to UV rays for internal and external applications, and SILANCOLOR AC TONACHINO acrylic-siloxane thick-layered, water-repellent coating with high filling capacity for internal and external surfaces, certified according to EN 15824 for thick plastic coatings, which indicates respect for the minimum obligatory standards to guarantee high performance from the products used.

Thermal Insulation

Alongside MAPETHERM SYSTEM, the highly-renowned thermal insulation system, Mapei has developed MAPETHERM TILE SYSTEM, the new thermal insulation system which makes it possible to apply ceramic and natural stone coverings, and large-sized, thin porcelain tiles in particular.

Sealants

Amongst the novelties on show at MADEexpo there were MAPESIL 300° C, acetic silicone sealant for high temperatures with high resistance to temperature changes, which follows the movements and expansion of the elements sealed; MAPEFLEX MS 45, an elastic hybrid sealant and adhesive for sealing expansion joints, fillets and distribution joints on both horizontal and vertical surfaces; MAPEFLEX BLACKFILL, a bituminen sealant for the maintenance of bituminous membranes, and

MAPEFLEX FIRESTOP 1200°C, refractory grout which guarantees fire and smoke-proof seals.

Chemical Anchoring Products

Mapei also presented the ultra-new range of ETA-certified chemical anchoring products for all design needs on site: MAPEFIX PE SF, ideal for light loads, MAPEFIX VE SF for heavy loads and MAPEFIX EP for structural loads.

At MADEexpo 2011 the Company used the slogan "Definitely anchored. The science of anchoring, the competence of Mapei" on a big panel to catch the visitors' attention and promote these brand new high tech products.

Road Maintenance

Alongside the products for repairing road surfaces, Mapei proposed rapid systems for maintenance work on roads, in industrial areas and on urban features, highlighting the new product MAPE-ASPHALT REPAIR 0/8, a ready-to-use, one-component reactive asphalt applied cold, for repairing holes in roads.

Systems for Laying Ceramic and Stone Floors

Plenty of room was dedicated to systems for laying all types of flooring (ceramic, natural stone, resilient materials and wood). For ceramic, a mention goes to the new product ULTRALITE S2), a one-component, lightweight cementitious product ideal for laying thin, large-sized porcelain tiles.

Products for Laying Resilient and Textile Flooring

Mapei offers eco-sustainable solutions for any type of resilient and textile flooring. For the civil construction field (schools, offices, hospitals, libraries, etc.) the emphasis is on the range of ECO adhesives, and in particular ULTRABOND ECO 380, an adhesive in water dispersion, with very low emission level of VOC, for laying PVC.

Solutions for Sports Facilities

For sports facilities constructed for any type of sport (from football to tennis and athletics, and so on), and on the occasion of the most important world-class sporting events. At MADEexpo the Company presented the MAPECOAT TNS SYSTEM, a multi-layered system made with acrylic resins to create external sports surfaces, ideal for tennis courts.

Resin and Cementitious Floorings

Mapei also proposed specific products for industrial and commercial environments:

MAPEFLOOR PARKING SYSTEM is an elastic polyurethane waterproofing system suitable for vehicles and car-parks with intense traffic; ULTRATOP SYSTEM is an ultra quick-hardening cementitious system for restoring old industrial and civil floors; MAPEFLOOR SYSTEM is a system for resin floors with a low VOC content, in compliance with current norms and standards.

Laying Parquet

Particular attention was given to parquet. In fact, apart from the main stand, at MADEexpo Mapei proposed a dedicated stand in Pavilion 3 (n. H01-L02) with all the specific innovative solutions for installing and protecting wood.

To emphasise its decades-long experience in this field, Mapei presented LIGNOBOND adhesive with a new formula, and also celebrated 35 years of the first ever two-component, epoxy-polyurethane adhesive for installing wooden floors, ideal for bonding any size and type of parquet on all kinds of substrate, including on heated substrates.

Soundproofing systems
to reduce the noise
of footsteps

Mapei for Sport

Winning products
for any kind of sport
facility

new Mapecoat TNS System



Mapecoat TNS Professional
Multi-layered acrylic resins system in water dispersion to create indoor and outdoor professional tennis courts.

Mapecoat TNS Multisport Comfort
High-elasticity multi-layered acrylic resin system in water dispersion used in combination with granular rubber matting for indoor and outdoor multi-purpose sport courts.



Lignobond®

EPOXY-POLYURETHANE ADHESIVE
FOR LAYING WOODEN FLOORS



Lignobond.
Celebrating 35 years
in laying parquet.



At Fiera Milano Rho district Mapei is always present with a permanent showroom, offering a complete round-up of its range of products to guarantee a specific solution for all needs.



• Eco-sustainability, creativity, wide product ranges, technical assistance for clients, project designers and installers

Laying Parquet

Laying and protecting wood, respecting human health and environment

As far as varnishes are concerned, a mention goes to the ULTRACOAT range, for long-lasting protection of wood. Amongst the adhesives, Mapei presented the new products ULTRABOND ECO S945 1K, ULTRABOND S965 1K AND ULTRABOND ECO S955 1K, ready-to-use one-component adhesives, EC 1R PLUS certified, made from sililated polymers, which are easy to apply, easy to clean off from surfaces and skin, and ideal for all types of parquet on any kind of substrate, including heating substrates.

VA.GA.

VAGA, a subsidiary of the Mapei Group, was also on show at MADE expo. This company is specialized in the production of silica sands and gravels and now also manufacturers general purpose mortars, plasters, screeds and structural concretes. VAGA was present in the Mapei's stand showing panels and slabs with two new powder mixes for concrete: BETONFLUID self-compacting concrete, and CALCESTRUZZO STRUTTURALE RCK 37 N/MM2 structural concrete. VAGA also had its own booth in the external area next to Pavilion 4.

Polyglass

Polyglass, Mapei Group's subsidiary specialized in the production of waterproofing membranes and insulating systems for the building industry, was also present at MADEexpo with a stand opposite the Mapei stand (in Pavilion 4 C25-D22). Here it displayed its complete range of bituminous and synthetic waterproofing products, made possible thanks to ADESO technology and REOXTHENE technology, used to make bituminous membranes up to 40% lighter compared with conventional ones. At MADEexpo the subsidiary, whose headquarters are located in Ponte di Piave (Province of Treviso, Northern Italy), showed a completely new look due to the new communication strategy which uses different colours for different product lines. It is worth remembering that Polyglass has always firmly believed in the importance of respect for the environment and is committed to the research of products which improve

energy efficiency and have a lower impact on the environment. The Company is partner of the Green Building Council and is committed to the research of products which improve energy efficiency and have a lower impact on the environment. Polyglass membranes help to obtain credits for the LEED (Leadership in Energy and Environmental Design) certification of buildings.

Mapei at Wonderline New Art 2011

At Fiera Milano Rho trade fair Mapei has a permanent showroom located in Corso Italia Ovest 0.02, near the south entrance. This is an area dedicated to designers who wish to widen their knowledge of particular areas of interest and get to know the tools available from Mapei. At MADEexpo 2011 visitors also showed much interest for Wonderline New Art 2011, an itinerant exhibition created by the Original Designers 6r5 architectural studio in collaboration with Mapei and Audi, and presented in April 2011 at the Fuori Salone (the off-show-events of the Milan Furniture Shows) in the National Museum of Science and Technology in Milan. Wonderline proposed a infinite variety of images, photos, poems, emotions and sounds for a totalising experience. The architect Francesco Roggero from the Studio Original Designers 6r5 Network studio has personalised two Audi A1 cars, and the Vertigo model was present at MADEexpo. The next edition of MADEexpo will be held from 17th to 20th October 2012.



Bamboozleed?...

Mapei's **Ultrabond** line removes the confusion about which adhesive to use for bamboo and other kinds of wooden flooring. Plus, it is great for traditional wood flooring and encompasses eco-sustainable products.

Ultrabond Eco S945 1K
Ultrabond Eco S955 1K
Ultrabond S965 1K

One-component adhesives made from sililated polymers

