

SEGMENTS



100 YEARS OF VERSATILITY

There are few bridges which don't have vibration dampers and elastic buffers to ensure that they can withstand the vibrations caused by traffic and high winds. In regions at high risk of earthquakes such as Japan, California and southern Europe, entire

skyscrapers and even nuclear power plants are built on elastic foundations to absorb the worst of earth tremors and help prevent damage. Moreover, butyl rubber is suitable for food contact applications and is contained in nearly every brand of chewing gum.



◀ **Robert Chou**
Board Office

PERFORMANCE POLYMERS

The Performance Polymers segment brings together all our polymer activities and comprises the Butyl Rubber, Performance Butadiene Rubbers, Technical Rubber Products and Semi-Crystalline Products business units.

OVERVIEW OF THE BUSINESS UNITS

The Butyl Rubber business unit is one of the world's leading manufacturers of high-quality butyl and halobutyl rubbers for the tire and rubber industries. A key advantage of these rubber products is their high impermeability to gas and moisture. The Performance Butadiene Rubbers business unit is one of the leading manufacturers of the synthetic rubbers polybutadiene rubber (PBR), emulsion styrene-butadiene rubber (ESBR) and solution styrene-butadiene rubber (SSBR), which are used primarily for manufacturing modern, fuel-efficient tires. However, they are also an indispensable component of many everyday products such as footwear, yogurt pots and golf balls. Through the Technical Rubber Products business unit, LANXESS offers its customers a broad range of technical rubber products. As one of the leading suppliers of synthetic rubbers for the rubber processing industry, this business unit delivers materials that are used in functional components in a wide range of applications – from seals, hoses, profiles and cable sheathing to special films and adhesives. The Semi-Crystalline Products business unit is successful with the plastics Durethan® and Pocan® and their strategically important precursors. These products are used in the automotive and electronics industries and in many other sectors. Thanks to our competitive production facilities and intensive product and application development, we are a leading provider on the relevant markets.

ADAPTING INVESTMENT PLANNING TO MARKET DEVELOPMENTS

Following a tangible recovery in global demand, we decided in January 2010 to now implement the largest investment project in our history, for which we have budgeted up to €400 million. Work on the construction of our new butyl rubber facility in Singapore will start in May 2010 and production is scheduled to begin in the first quarter of 2013. The intention until now had been to start production at the facility in 2014. Average growth rates of more than three percent are once again expected for the butyl rubber market in future years.

“We are pleased to now be able to launch this project. The new facility will be the most modern of its kind in the world.”

LANXESS Management Board Chairman Axel C. Heitmann commenting on the construction of the new butyl rubber plant in Singapore



We will be able to evaluate existing technologies for manufacturing butyl rubber and implement the results of this appraisal at the new plant. As a result, the Singapore facility will set new global standards and utilize vastly improved process technology. Featuring some newly developed elements, this technology is much more resource-sparing, energy-efficient and environmentally friendly than others and thus represents the current best in class in terms of efficiency.

As well as constructing the new facility, we will also be moving the global headquarters of the Butyl Rubber business unit to Singapore. Administration functions will be relocated from Fribourg in Switzerland to the Southeast Asian metropolis during the course of 2010. In the initial phase, around 35 employees will work in areas such as marketing, controlling and purchasing. This move is in response to the increasing importance of the Asian market, where China, India and South Korea in particular are posting strong growth.

This importance is also reflected in the expansion of our research and development center for high-performance rubber in Qingdao, China. The newly extended center, jointly used by the Butyl Rubber, Technical Rubber Products and Performance Butadiene Rubbers business units, now houses an additional mixing and testing laboratory and a new pilot facility. The project represents an investment of some €10 million.

INTEGRATION OF PETROFLEX COMPLETED

Just two years after the acquisition of Petroflex S.A. was announced, we have successfully integrated the Brazilian company into the LANXESS Group's organizational structures. Effective February 1, 2009, Petroflex was renamed LANXESS Elastômeros do Brasil S.A. and the company's business operations have now been fully integrated into the Performance Butadiene Rubbers business unit. As part of the integration process, the Triunfo, Duque de Caxias and Cabo de Santo Agostinho sites have become part of the global Performance Butadiene Rubbers production network.

We now control all sales activities of the Performance Butadiene Rubbers business unit in Latin America through LANXESS Elastômeros do Brasil S.A. The former Petroflex product portfolio has been fully integrated into the existing LANXESS brand range and is marketed under the established brands Buna® (ESBR, SSBR, PBR) and Taktene® (latex). All key LANXESS business processes and internal workflows have been introduced, the organizational structure has been adapted, and the product portfolio has been streamlined. Only polybutadiene rubber, solution styrene-butadiene rubber and emulsion styrene-butadiene rubber will be manufactured at the Brazilian sites in the future.

SHARED SUCCESS

In 2009, we succeeded in forging and strengthening several strategically important partnerships.

Through a global sales partnership with Russian rubber manufacturer Halopolymer, one of the world's largest fluoropolymer producers, the Technical Rubber Products business unit is expanding its fluororubber activities. The global market for these extremely heat- and chemical-resistant rubbers has an annual volume of more than 20,000 tons. In the medium term, we plan to take a significant share of this market with our Levatherm® F products. Halopolymer will continue to serve the Russian market as it has in the past.

In 2009, we started to eliminate the use of DAE oils in synthetic rubber production throughout the world. These oils are suspected of being harmful both to the environment and to health. Their use in the production of tires destined for sale in Europe and Japan has therefore been prohibited by law since January 2010. The Performance Butadiene Rubbers business unit embarked on a strategic partnership with Swedish oil manufacturer Nynas to supply alternative products. Nynas supplies eco-friendly oils that have been developed specifically for the manufacture of tires, for example, and are available without restriction worldwide. Nynas also has a team of experts that focuses exclusively on developing and marketing processing oils for the tire industry.

After concluding a contract in 2007 to supply South Korean tire manufacturer Hankook Tire with large volumes of SSBR rubber and polybutadiene rubber, we will also be supplying that company with butyl rubber from 2010. Hankook Tire is one of the fastest growing producers in its sector and ranks seventh in the world. Its product range includes radial ply tires for cars and commercial vehicles.

E.U. AGREEMENTS ON PROMOTING ENVIRONMENTALLY FRIENDLY TIRES

From 2012, tires in the European Union will have to be labeled to show their fuel efficiency, wet grip and noise emissions. This pioneering decision was taken by the European Commission, the European Council and the European Parliament on November 25, 2009. In a system similar to the one already used for domestic appliances, classes from A (best performance) to G (worst performance) are intended to ensure greater transparency for consumers and support their decision-making process when buying new tires. According to experts, around 70 percent of all tires sold in Europe are purchased to replace old and worn tires.

As a key supplier to leading tire manufacturers, LANXESS will benefit from the E.U. decision, which will result in significant and, above all, sustainable growth potential. This is because environmentally friendly tires as defined in the classification are virtually inconceivable without the use of high-performance rubber products. The high-tech materials produced by LANXESS make it possible to extend the "magic triangle" of tire technology, combining low rolling resistance with good wet grip and excellent mileage. Prospects for growth in the high-performance tire segment are correspondingly positive.

In March 2009, E.U. parliamentarians voted to make fuel-saving tires mandatory for new cars in E.U. member states from 2011. If all the vehicles in the European Union were fitted with these tires, annual fuel savings of some six billion liters could be achieved and CO₂ emissions reduced by around 15 million tons each year.

KEY INNOVATIONS INTRODUCED

In October 2009, the Performance Butadiene Rubbers business unit unveiled its new grade Buna® CB 21. The first commercial use for this newly developed neodymium butadiene rubber (Nd-BR) has been the KIRA STAR golf ball, which displays a special characteristic. Thanks to the rubber's extremely high resilience, this golf ball travels much further than conventional golf balls, even when hit at low head speeds and with a low impact. This feature has brought Japanese sporting goods manufacturer Kasco Corporation unexpected market success. In the first few months after the product's introduction, three and a half times as many golf balls were sold than was originally forecast. We are convinced that Nd-BR will be highly successful in the tire sector because the same property that makes a golf ball travel further also enables the production of particularly energy-efficient tires.

Highly elastic!

New Buna® CB 21 already helps golf balls travel further. The product could soon also be used in highly energy-efficient tires.



To coincide with the centenary of the invention of synthetic rubber on September 12, 2009, the Technical Rubber Products business unit introduced the HNBR rubber Therban® 3400 VP, the prototype for a new class of hydrogenated nitrile rubbers. This particularly low-viscosity Therban® grade offers benefits in injection molding and in the production of particularly soft seals, without the addition of plasticizers. As well as conventional applications, high-tech sealing applications for innovative energy systems are now also possible.

To cut car fuel consumption, modern combustion engines are being made smaller and the combustion process is being optimized through the additional injection of air with overpressure. This technology subjects plastic engine components to increased temperatures and mechanical loads. The Semi-Crystalline Products business unit has developed pseudoplastic polyamide 6 and 6.6 grades that are customized for heavy-duty air lines in the engine. For example, Durethan® AKV 325 H2.0 is used to manufacture the charge air tube of a four-cylinder gasoline engine with turbocharger for the mid-class sedan of a major automaker. It has such good properties that it can be used on the "hot side" of the turbocharger where it is subjected to high pressures and, in particular, has to withstand long-term exposure to high temperatures that can peak at around 200 °C.

The high-quality plastic supplied by Semi-Crystalline Products also played a not inconsiderable part in helping TRW Automotive Systems GmbH to win the 2009 MID Industry Prize. The Aschaffenburg, Germany-based system supplier received this award from the "Forschungsvereinigung 3D-MID e.V." for a steering wheel module with operating switches made of the PBT material Pocan® DP T 7140 LDS. The steering wheel is fitted in the new BMW Z4 Roadster. The switch assemblies – produced as molded interconnect devices, or MIDs for short – which are manufactured using laser direct structuring (A) (LDS), are the first large, series-produced automotive components to be made using this process. They display many of the advantages offered by combining laser direct structuring with our tailor-made polyester. These include the small footprint, more flexible design of the circuit layout, enhanced component functionality and substantial weight-saving potential. A wide range of mechanical and electrical functions can be integrated in MIDs. Consequently, they have many potential uses in electrical components for automotive applications.

(A) Laser direct structuring is a particularly innovative method for the production of MIDs. It enables conductive circuits to be applied to three-dimensional plastic interconnect devices simply and cost-effectively, is flexible in the event of layout changes and does not require etching or pickling chemicals.

ADVANCED INTERMEDIATES

The Advanced Intermediates segment comprises our activities in the area of basic and fine chemicals. The Basic Chemicals business unit is one of the world's leading suppliers of high-quality industrial chemicals. Saltigo is a major supplier on the custom synthesis market, specializing in products for the agrochemical and pharmaceutical industries.

BASIC CHEMICALS EXPANDS INTERNATIONAL PRESENCE

Basic chemicals are extremely important for the manufacture of a large number of chemical products, such as agrochemicals, pharmaceuticals, dyestuffs and coatings. The manufacture of basic chemicals usually involves highly complex chemical processes that demand extensive know-how and state-of-the-art technology. In addition to these factors, it is our long-term supply reliability above all that makes us an attractive partner to customers across the globe.

The Basic Chemicals business unit increased market share in 2009, despite the global economic crisis. The two acquisitions we completed in the year under review strengthened our presence in the BRIC countries and enhanced the Basic Chemicals global production network. The BRIC countries are playing an increasingly important role on the basic chemicals market – not only as high-performance production locations but also as dynamically growing sales markets, particularly for the agrochemical and pharmaceutical industries.

In India, we acquired the chemical businesses and facilities of listed Indian company Gwalior Chemical Industries Ltd. Following approval of the transaction by the stockholders and the relevant antitrust authorities, the businesses and facilities were officially transferred to the LANXESS Group effective September 1, 2009. Founded in 1978 and headquartered in Mumbai, the company is among the leading producers of benzyl products and sulfur chlorides in India. These product groups are used in agrochemicals, pharmaceuticals and fragrances, for example. The production facilities, now integrated into LANXESS India Private Ltd., are located in Nagda, in the province of Madhya Pradesh, and capacity is currently being expanded further.

Our acquisition of the businesses and production facilities of Jiangsu Polyols Chemical Co. Ltd. also became legally and commercially effective on September 1, 2009. This Chinese company, established in 2006 and based in Liyang, west of Shanghai, mainly produces the polyol trimethylolpropane (TMP), which is used to manufacture coatings, paints and lubricants, for example. Jiangsu Polyols is a perfect addition to the Basic Chemicals business unit, which is already a major TMP supplier in China.

At the Leverkusen site, the expansion of our globally unique integrated aromatics production network was completed on schedule in the first quarter of 2010. This program, started at the end of 2008, increased by as much as 60 percent our capacities for monochlorobenzene, chlorotoluenes and cresols and their derivatives, such as the biodiesel stabilizer Baynox® and the antioxidants Vulkanox® BHT and Vulkanox® BKF. It also improved availability of the raw material needed to produce menthol, which is a key downstream product. Despite the economic downturn, we pursued this program with an investment volume of some €35 million, as contracts are in place to secure most of this capacity increase. Long-term supply reliability is extremely important to our global customers and can be safeguarded by this investment. Our biodiesel stabilizer Baynox® offers further potential for growth, with the European Patent Office granting us a patent for “Baynox® liquid.”

In January 2010, we prepared the ground for another major investment program at our Krefeld-Uerdingen site. There we will start building a new formalin production facility in the third quarter of 2010. On its completion, we will no longer be dependent on buying in this feedstock, which we use in the manufacture of TMP. The construction project and accompanying process optimization measures represent a total investment of around €18 million. Start-up of the facility is scheduled for the end of 2011.

SALTIGO STILL ON COURSE FOR SUCCESS

Despite the difficult business environment, Saltigo – an independent company operating as a business unit within the LANXESS Group – successfully expanded its market position in 2009.

In January 2009, the business unit concluded a program to expand capacities for an active ingredient precursor for a major pharmaceutical manufacturer, without interrupting production. With measures including process and plant optimization and the acceleration of in-process analysis, the program resulted in a capacity increase from 30 to 50 tons each year.



“The key to our success is working consistently to optimize our processes and our service offering in a highly competitive environment.”

Dr. Uwe Brunk, Head of Agro & Specialty Chemicals at Saltigo, at the Agrow Awards 2009 ceremony

The agrochemical industry was less affected than others by the economic turmoil of 2009. Saltigo, with its strong market position in this sector, benefited particularly from this situation. To meet constantly growing demand, we more than doubled production capacities for five intermediates and two active ingredients in the first half of the year. Three projects were achieved by implementing process refinements developed in-house.

In November we successfully defended our title at the prestigious Agrow Awards 2009. The only European supplier to reach the final round, Saltigo was awarded first prize in the Best Supplier category. The panel of judges, which comprised internationally recognized industry experts, reserved particular praise for the business unit's technical strength and speed coupled with high quality standards.

PERFORMANCE CHEMICALS

The Performance Chemicals segment groups together our seven application-oriented business units in the field of process and functional chemicals: Material Protection Products, Inorganic Pigments, Functional Chemicals, Leather, Rhein Chemie, Rubber Chemicals and Ion Exchange Resins.

OVERVIEW OF THE BUSINESS UNITS

The Material Protection Products business unit is one of the leading global manufacturers of preservatives and biocidal active ingredients. Inorganic Pigments operates the world's largest production plant for iron oxides for a wide range of applications. Functional Chemicals provides the plastics industry and many other industries with plastics additives, phosphorus-based and specialty chemicals, and organic and inorganic colorants. The Leather business unit is one of the few suppliers to the leather industry to offer all the products needed for leather processing. Rhein Chemie is a supplier to various industry segments, producing chemical specialties for the rubber, plastics and lubricant industries. Thanks to the outstanding quality and processing properties of its products, the Rubber Chemicals business unit is among the world's leading manufacturers and suppliers in its field. The Ion Exchange Resins business unit is one of the leading international producers of ion exchange resins. Thanks to their versatility, these products are becoming increasingly important, for example in the treatment of drinking water or the extraction of metals.

TARGETED EXPANSION OF THE GLOBAL PRODUCTION NETWORK

It is more important than ever before that we scrutinize our production structures throughout the world and optimize them wherever possible, not just in light of the economic crisis and the challenging competitive environment this has created but also in response to long-term structural changes in many of our regional markets. In 2009, our activities were again focused on the Asian countries.

If we are to fully exploit the market opportunities in China, we need an efficient local production infrastructure. We therefore further expanded our production network there last year and will continue to do so in the future. Since November 2009, the Leather business

unit has operated a new production line at the Wuxi site, enabling us to further improve supplies to our most important growth markets in Asia. Wuxi is not only a production site but also home to the largest and most modern research and development center for leather chemicals in the Asia-Pacific region.

We are also planning to optimize and expand the Inorganic Pigments business unit's production operations at Jinshan near Shanghai. Our objective is, by 2011, to optimize technology at the production facility for yellow pigments, which was acquired from an earlier cooperation partner in 2008, to ensure it meets LANXESS's standards for state-of-the-art, efficient and environmentally friendly production. We will also be constructing a new production facility for black pigments to safeguard the supply of raw materials to our mixing and grinding plant, also located in Shanghai, and to better serve the needs of the Asia-Pacific market. Start-up of this new facility is scheduled for the fourth quarter of 2010.

The Functional Chemicals business unit will relocate colorant production from Lerma in Mexico to the Leverkusen site in Germany, a move that will boost the competitiveness of this global business. The measure is part of the reorganization of Functional Chemicals which was initiated in 2008 and is so far running as planned.

Also on schedule are our major investment projects in Jhagadia, India. The Ion Exchange Resins business unit is currently building a state-of-the-art manufacturing facility for ion exchange resins there, which is scheduled to start operation in 2010. The Asia-Pacific region is already the largest market for ion exchange resins, which play a key role in purifying and treating drinking water. Ongoing industrialization and continued population growth will result in a further significant increase in demand for clean drinking water in the coming years. We will be able to serve this demand in the future from one of the industry's most cutting-edge plants. Moreover, the

Rubber Chemicals business unit has relocated its production operations in India from Thane to Jhagadia, from where it will supply the fast-growing Indian market from 2010 onwards. LANXESS is investing a total of €50 million at the new Jhagadia site which, once construction is completed, will be one of the company's most advanced production locations in the whole of Asia, employing around 250 people.

With a view to better exploiting the enormous potential of the Russian market in the future, the Rhein Chemie business unit is constructing a production facility at the recently acquired site in the administrative region of Nizhny Novgorod. The production of polymer-bound additives and release agents for the rubber processing and tire industries is scheduled to start at this facility at the end of 2010.

A new chemical production site at Bitterfeld, Germany, will enable the Ion Exchange Resins business unit to move into membrane filtration technology, a new business area in the water treatment industry. Investment in this pioneering project will total around €30 million. The site will cover an area of 4,000 square meters and provide high-tech laboratories, logistics space and offices alongside the production facility. In the long term, 200 new jobs will be created at Bitterfeld. Construction will be accompanied by an extensive research and development program at the new site and at other locations in the region. The pilot and development phase of the new facility is scheduled for the end of 2010 and current planning envisages the first products from the plant reaching the market in 2011.



BRIC countries

First trial of strength

During the recent crisis, LANXESS's growth strategy in the BRIC countries passed its first serious trial of strength. Above all the Asian countries, and particularly China, are now the growth engine for economic development.

PREMIUM PRODUCTS OFFER ADDED VALUE

2009 showed once again that innovative LANXESS products perform impressively in a wide variety of applications.

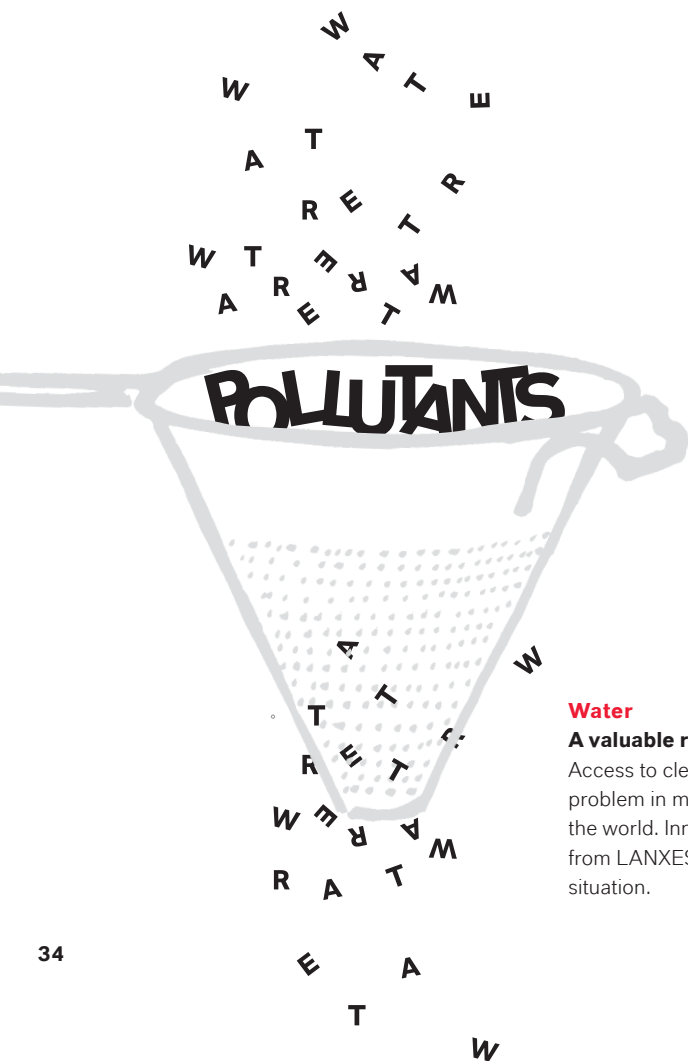
Usable water supplies are dwindling worldwide and thus becoming an increasingly valuable resource. With its new membrane filtration technology, LANXESS is extending its already strong market position in water treatment to include a new area of application. The membrane's chemical composition and structure make it possible to remove undesirable substances such as nitrates, pesticides, herbicides, viruses, bacteria and minute particles. The water passes through the filter, which retains suspended particles and other undesirable substances. The global membrane market is currently estimated to be worth around €1 billion, and this figure is set to continue rising.

Swine flu was probably the dominant health issue in 2009. The disinfectant Preventol CD 601 from the Material Protection Products business unit was able to make a key contribution to controlling this disease, which was classed as a pandemic. A study by Gießen University confirmed the product's effectiveness against the viral strain associated with swine flu. Its unique combination of three active ingredients had already proven extremely effective against the bird flu virus. While Preventol CD 601 is used exclusively in the professional sector, its active ingredients are also utilized in consumer products such as household cleaners and toiletries. This sector in particular has generated strong growth, helping to offset lower demand in other sectors, such as the construction industry.

On December 15, 2009, the European Food Safety Authority (EFSA) published its recommendation to approve alkylsulfonic acid phenyl esters for use in articles that come into contact with water-based and dry foodstuffs. This provided scientific endorsement of the dossier on this class of substances submitted by the Functional Chemicals business unit in June. Once approval has been given, the phthalate-free plasticizer Mesamoll II can also be used in Europe for toys designed for children aged under 36 months. The product is one of the world's few broadly usable plasticizers approved by both the EFSA and FDA for use in articles that come into contact with foodstuffs, other than fatty foodstuffs.

The Leather business unit launched X-Lite® Leather, the prototype for much lighter-weight upholstery leather products. Based on Levotan® X-Cel technology, it allows the production of leather goods which look and feel like a full, 1.3 mm-thick leather, yet are 20 to 30 percent lighter. This product feature is particularly attractive for the automotive and aviation industries, where weight savings play a crucial role in cutting fuel consumption, thereby enhancing environmental compatibility.

The Rhein Chemie business unit is making an active contribution to improving road traffic safety. The first commercial application for the high-performance rubber additive Micromorph® (Nanoprene®) is a new microgel compound that Toyo Tire, one of the world's leading manufacturers of high-performance tires, has developed for its Garit G5 tires. Winter tires containing Micromorph® are characterized by exceptional rigidity on wet and dry roads. The product also prevents tires from hardening on contact with snow or ice, which makes braking distances much shorter in adverse weather conditions.



Water
A valuable resource
 Access to clean water is a major problem in many countries around the world. Innovative products from LANXESS help ease this situation.

The Eiffel Tower
120th-birthday makeover

The understated shade of this landmark, which harmonizes with the rooftops and monuments of Paris, is a blend of three different brown grades from LANXESS's Bayferrox range of iron oxides.



A core element of our R&D strategy is to optimize existing products and harness them for new applications. Vulcuren®, a still recent innovation from our Rubber Chemicals business unit, is already experiencing this type of “learning curve.” As a secondary accelerator in green tires, it can now also replace DPG (diphenylguanidine), which has until now been the industry standard. The effect of this near 1:1 substitution is to eliminate the well-documented and unwanted release of aniline that occurs during vulcanization when working with DPG – offering a clear environmental advantage in addition to the technological benefits.

Many industrial processes rely on clean, pure or even ultrapure water. While it is therefore extremely important that the relevant treatment plants are designed properly, actually doing so is far from easy. Our Ion Exchange Resins business unit was one of the first suppliers to launch reliable software to cost projects over 20 years ago and has continued to develop this offering further. The Lewatit-CalculatION 5.0 version completed in 2009 now makes designing treatment plants even easier. The software also enables our customers to cut the operating costs of existing plants.

The Eiffel Tower – 324 meters high and weighing 7,300 tons – celebrated its 120th birthday in 2009. This monument, which was designed for the 1889 World's Fair and originally intended to stand for just 20 years, is painted every seven years. The high-quality corrosion protection system used on the famous landmark contains Bayferrox pigments from our Inorganic Pigments business unit. These iron oxides are characterized by very high lightfastness and weather resistance, high tinting strength and chemical resistance, and excellent hiding power. The new “coat” for the 250,000 square meters of steel costs around €4 million and application is scheduled for completion by fall 2010.