Safe & sound.
Elastofoam in Amptown flightcases.

- Wrapped up.
  PU insulation in Stiebel Eltron water heaters.
- Made to last.
  Bedliners with natural fibers.
- Breaking new ground.
  Elastopave going new ways in Korea.
Dear Readers,

A few niches excepted, the number of products on today’s international markets that cannot be improved with the universal material polyurethane is dwindling. With polyurethane, products can be developed, refined, and ultimately manufactured more efficiently and more successfully for our customers. The enthusiasm for good products is underlined by the proximity to customers, in order to respond to their wishes quickly and on the spot, worldwide. The opening of a new system house in Dubai, the approval for a new MDI project in Chongqing, China, together with an integrated PU system house as well as the ground-breaking for a new system house in Tianjin, China, highlight the pioneering development. With these steps BASF shows a strong commitment for fast-growing regions such as western China and meets the demand of growing markets in important industries.

This applies as much to transportation and construction as to appliances and engineering, footwear and a whole range of other sectors. Without the ideas and materials developed by the specialists of BASF Polyurethanes, many aspects of everyday living and working would simply lack the flawlessness and ingenuity that turn ordinary good products into exceptional ones. And this diversity can be continued endlessly and all over the world, as you will discover again and again in our new Global PUR Magazine.

This time we are reporting among other things on saving energy with water heater insulation made of polyurethane, saving the lives of Formula 1 drivers with safety blocks made of our materials, the taming of a wild mountain stream and the protection of high-tech concert equipment on its travels. Awaiting you are reports and news that demonstrate once again that whenever anything in the world is to be invented or improved, polyurethane is (almost) always in on the act.

Enjoy the new Global PUR!

Dr Melanie Maas-Brunner and the Global PUR Editorial Team
Dear Readers,

A few niches excepted, the number of products on today’s international markets that cannot be improved with the universal material polyurethane is dwindling. With polyurethane, products can be developed, refined, and ultimately manufactured more efficiently and more successfully for our customers. The enthusiasm for good products is underlined by the proximity to customers, in order to respond to their wishes quickly and on the spot, worldwide. The opening of a new system house in Dubai, the approval for a new MDI project in Chongqing, China, together with an integrated PU system house as well as the ground-breaking for a new system house in Tianjin, China, highlight the pioneering development. With these steps BASF shows a strong commitment for fast-growing regions such as western China and meets the demand of growing markets in important industries.

This applies as much to transportation and construction as to appliances and engineering, footwear and a whole range of other sectors. Without the ideas and materials developed by the specialists of BASF Polyurethanes, many aspects of everyday living and working would simply lack the flawlessness and ingenuity that turn ordinary good products into exceptional ones. And this diversity can be continued endlessly and all over the world, as you will discover again and again in our new Global PUR Magazine.

This time we are reporting among other things on saving energy with water heater insulation made of polyurethane, saving the lives of Formula 1 drivers with safety blocks made of our materials, the taming of a wild mountain stream and the protection of high-tech concert equipment on its travels. Awaiting you are reports and news that demonstrate once again that whenever anything in the world is to be invented or improved, polyurethane is (almost) always in on the act.

Enjoy the new Global PUR!

Dr Melanie Maas-Brunner and the Global PUR Editorial Team
Contents

♦ Global News
1 – 21 News in brief from all over the world, people and positions, new system houses, prizes and awards, data, facts and figures.

♦ Consumer Products
22 – 27 Elastofoam® in Amptown flightcases protects valuable entertainment equipment.

28 – 33 Elastopor® H insulation in Stiebel Eltron water heaters saves up to 30 percent energy.

♦ Automotive
23 – 26 PU rigid foam in safety barriers saves lives in Formula 1.

27 – 28 COLO-FAST®-WST® creates flush seals around panorama windscreens.

29 – 32 PU foam makes Hyundai car seats more comfortable and environment-friendly.

33 – 34 Elastoflex® E offers car makers greater design scope while reducing weight.

♦ Footwear
30 – 31 PU soles give hotel staff a sure footing.

32 – 33 Elastospray® is the new name of quality Elastopor® spray foam.

34 – 35 WALLTITE® is the solution for energy-efficient construction and renovation.

36 – 37 Elastocoat® provides a lasting seal in sewer shafts, chemical tanks and on car park decks.

38 – 39 Elastopave® creates alternative cycle paths and footways in Korea.

♦ Construction
33 – 35 PU rigid foam in safety barriers saves lives in Formula 1.

36 – 37 COLO-FAST®-WST® creates flush seals around panorama windscreens.

38 – 39 PU foam makes Hyundai car seats more comfortable and environment-friendly.

39 – 40 Elastoflex® E offers car makers greater design scope while reducing weight.

♦ Flood and Coastal Protection
40 – 41 Elastocoast® delivers flood protection and nature conservation in one go.

♦ Medical Technology
42 – 43 TPU in adhesive bandages displays totally new elasticity in the dressing of wounds.

We wish to thank our customers and partners for their kind support.

The PUR Magazine contains links to external third-party websites. Since we have no control over the content of such websites, we cannot accept any liability for this outside content. Responsibility for the content of linked sites always lies with the provider or operator of the sites in question. The linked sites were checked for possible infringements of the law at the time of linking. Illegal content was not apparent at the time of linking. However, constant control of the content of linked sites is not acceptable unless there is definite evidence of illegal infringements. Should we become aware of any legal infringements, we shall remove such links without delay.

® = registered trademark
Contents

Global News
6 – 11 News in brief from all over the world, people and positions, new system houses, prizes and awards, data, facts and figures.

Consumer Products
12 – 15 Elastofoam® in Amptown flightcases protects valuable entertainment equipment.
16 – 19 Elastopor® H insulation in Stiebel Eltron water heaters saves up to 30 percent energy.

Automotive
20 – 21 PU rigid foam in safety barriers saves lives in Formula 1.
22 – 25 COLO-FAST®-WST® creates flush seals around panorama windscreens.
26 – 27 PU foam makes Hyundai car seats more comfortable and environment-friendly.
28 – 29 Elastoflex® E offers car makers greater design scope while reducing weight.

Footwear
30 – 31 PU soles give hotel staff a sure footing.

Construction
32 – 33 Elastospray® is the new name of quality Elastopor® spray foam.
34 – 35 WALLTITE® is the solution for energy-efficient construction and renovation.
36 – 37 Elastocoat® provides a lasting seal in sewer shafts, chemical tanks and on car park decks.
38 – 39 Elastopave® creates alternative cycle paths and footways in Korea.

Flood and Coastal Protection
36 – 37 Elastocoast® delivers flood protection and nature conservation in one go.

Medical Technology
38 – 39 TPU in adhesive bandages displays totally new elasticity in the dressing of wounds.

Elastofoam® in Amptown flightcases protects valuable entertainment equipment.
Elastopor® H insulation in Stiebel Eltron water heaters saves up to 30 percent energy.

PU rigid foam in safety barriers saves lives in Formula 1.
COLO-FAST®-WST® creates flush seals around panorama windscreens.
PU foam makes Hyundai car seats more comfortable and environment-friendly.
Elastoflex® E offers car makers greater design scope while reducing weight.
PU soles give hotel staff a sure footing.
Elastospray® is the new name of quality Elastopor® spray foam.
WALLTITE® is the solution for energy-efficient construction and renovation.
Elastocoat® provides a lasting seal in sewer shafts, chemical tanks and on car park decks.
Elastopave® creates alternative cycle paths and footways in Korea.
Elastocoast® delivers flood protection and nature conservation in one go.
TPU in adhesive bandages displays totally new elasticity in the dressing of wounds.

We wish to thank our customers and partners for their kind support.

The PUR Magazine contains links to external third-party websites. Since we have no control over the content of such websites, we cannot accept any liability for this outside content. Responsibility for the content of linked sites always lies with the provider or operator of the sites in question. The linked sites were checked for possible infringements of the law at the time of linking. Illegal content was not apparent at the time of linking. However, constant control of the content of linked sites is not acceptable unless there is definite evidence of legal infringements. Should we become aware of any legal infringements, we shall remove such links without delay.

® = registered trademark
BASF has been active in Brazil for much longer – for a hundred years, in fact. The Mauá location near São Paulo celebrated its 15th anniversary last fall.

The Mauá site in the southeast of Brazil belongs to the global BASF network of 38 system houses. Since 1995, it has also been serving all South American industries, with the production of basic products, systems and special elastomers. From product development and production through to technical service, Mauá offers customers on the South American continent everything they need for support in their respective sectors. Anton Traunfellner, Managing Director Polyurethanes in South America, states: “The region is very important, since it has huge growth potential for the coming years.”

At any rate, customers are rewarding its efforts. Toyota Brazil presented BASF Poliuretanos with the Supplier Award 2009 for Cellasto® parts. In the same year, there was a prize for excellence with steering wheel systems from component supplier Autoliv, and Grupo Antolin commended BASF for its Elastoflex® systems. Around 95 percent of all car manufacturers now order Cellasto parts from the Mauá location. TPU Elastollan® is also a success story and is supplied to such diverse industries as shoes, agriculture, and automotive and offshore applications. Output has thus tripled since the company’s establishment.

When the Fimec shoe fair opens its doors, the industry floods in. And this year is no exception, for the 34th time, when the International Trade Fair for Leather, Chemical Products, Machines and Component Parts takes place in Rio Grande do Sul from April 12 to 16.

With 40,000 m² of exhibition space, exhibitors from 22 countries and about 50,000 interested visitors, Fimec is still the foremost shoe and leather fair in Latin America. The shoe industry, after all, is one of the leading branches of industry in Brazil, employing about 350,000 people. BASF has been exhibiting at this popular fair for 10 years now – obviously with the goal not only of doing something for its brand image, but also of presenting new projects and technologies.

This time around, all eyes were on the PURE 1.2 concept shoe. The new model demonstrates the possibilities of TPU and PU systems based on renewable resources.

One of the stars at Fimec in Rio Grande do Sul, the PURE 1.2 concept shoe, impressively demonstrated the scope available today for developing shoes with TPU and PU systems derived from renewables.
BASF has been active in Brazil for much longer – for a hundred years, in fact. The Mauá location near São Paulo celebrated its 15th anniversary last fall.

The Mauá site in the southeast of Brazil belongs to the global BASF network of 38 system houses. Since 1995, it has also been serving all South American industries, with the production of basic products, systems and special elastomers. From product development and production through to technical service, Mauá offers customers on the South American continent everything they need for support in their respective sectors. Anton Traunfellner, Managing Director Polyurethanes in South America, states: “The region is very important, since it has huge growth potential for the coming years.”

At any rate, customers are rewarding its efforts. Toyota Brazil presented BASF Poliuretanos with the Supplier Award 2009 for Cellasto® parts. In the same year, there was a prize for excellence with steering wheel systems from component supplier Autoliv, and Grupo Antolin commended BASF for its Elastoflex® systems. Around 95 per cent of all car manufacturers now order Cellasto parts from the Mauá location. TPU Elastollan® is also a success story and is supplied to such diverse industries as shoes, agriculture, and automotive and offshore applications. Output has thus tripled since the company’s establishment.

When the Fimec shoe fair opens its doors, the industry floods in. And this year is no exception, for the 34th time, when the International Trade Fair for Leather, Chemical Products, Machines and Component Parts takes place in Rio Grande do Sul from April 12 to 16.

With 40,000 m² of exhibition space, exhibitors from 22 countries and about 50,000 interested visitors, Fimec is still the foremost shoe and leather fair in Latin America. The shoe industry, after all, is one of the leading branches of industry in Brazil, employing about 350,000 people.

BASF has been exhibiting at this popular fair for 10 years now – obviously with the goal not only of doing something for its brand image, but also of presenting new projects and technologies.

This time around, all eyes were on the PURE 1.2 concept shoe. The new model demonstrates the possibilities of TPU and PU systems based on renewable resources.

One of the stars at Fimec in Rio Grande do Sul, the PURE 1.2 concept shoe, impressively demonstrated the scope available today for developing shoes with TPU and PU systems derived from renewables.
In the wake of the successful presentation of the Hyundai i-flow, BASF and Hyundai Kia aim to build on their fruitful cooperation to date. The Hyundai Kia Tech Fair at the Hyundai Research Center in Namyang, South Korea, in November 2010 presented a welcome opportunity for this endeavor. About 2,000 researchers from Hyundai and the BASF Automotive Team discussed at length new applications for the interior and exterior and particularly the scope for new PU engine encapsulation. They also looked at further innovations in energy and weight reduction in automotive engineering as well as markedly improving comfort by cutting noise still further.

A new PU system house in Tianjin, China, has been approved.

BASF received approval for a 400,000 t/a MDI project in Chongqing, China, from China’s National Development and Reform Commission. The facility, which will produce a core component mainly used for polyurethane foams, is expected to start up by 2014.

In addition to the production complex for MDI, BASF is also establishing a new Polyurethane Solutions System House in Chongqing to meet the demand of the growing markets in important industries like construction, appliances, transportation, and footwear. “With these steps, BASF is the first global PU player to show a strong commitment to this important and fast-growing region of China,” said Wayne T. Smith, President of BASF’s Polyurethane Division. BASF estimates that there will be at least 300 permanent jobs created when the plant is operating in full swing. In addition, 17 plants and businesses in the chemical park will begin operation as key partners or suppliers, serving multiple, labor-intensive industries.

India’s economy takes off.

One of Asia’s biggest PU exhibitions was held in New Delhi from March 9–11, 2011. Every three years, the Indian Polyurethane Association (IPuA) organizes a three-day exhibition here along with a conference that reports on the latest developments, technologies and machines for the production of PU. The polyurethane industry is one of India’s fastest-growing, with double-digit growth rates in the last five years alone. In the coming decade, turnover is even expected to double every four years. A significant increase in PU consumption, manifested in such household goods as mattresses and refrigerators as well as in rapidly growing industries like automotive and construction, is therefore anticipated in India in the next few years.

New MDI project in Chongqing, China, has been approved.

Together a driving force.

In the wake of the successful presentation of the Hyundai i-flow, BASF and Hyundai Kia aim to build on their fruitful cooperation to date. The Hyundai Kia Tech Fair at the Hyundai Research Center in Namyang, South Korea, in November 2010 presented a welcome opportunity for this endeavor. About 2,000 researchers from Hyundai and the BASF Automotive Team discussed at length new applications for the interior and exterior and particularly the scope for new PU engine encapsulation. They also looked at further innovations in energy and weight reduction in automotive engineering as well as markedly improving comfort by cutting noise still further.

New boost to commitment in China.

With a new PU system house in Tianjin, BASF is again strengthening its service network in China.

A new system house is planned in Tianjin, North China, for 2012. Ni Xiangyu, Vice Chairman of the Administrative Commission of Tianjin Economic-Technological Development Area, and Wayne T. Smith, President of the BASF Polyurethanes Division, have signed a Memorandum of Understanding. “We expect the PU market in China to continue to grow at above-average growth rates,” says Smith. “The strategic location of the city is perfectly suited to serve the fast-growing North China markets including the thriving centers of Beijing, Shenyang and Changchun.” About 12 million people live in this region alone. Belonging to the global network of so far 38 system houses, the new addition represents a major boost to the company’s commitment in China. “The investments will serve to foster and facilitate the development of an environment-friendly, resource-conserving eco-city like Tianjin,” said Dr Melanie Maas-Brunner, Senior Vice President BASF Polyurethanes Asia Pacific, at the ground-breaking ceremony in Tianjin.

New MDI project in Chongqing, China, has been approved.

With a new PU system house in Tianjin, BASF is again strengthening its service network in China.

A new system house is planned in Tianjin, North China, for 2012. Ni Xiangyu, Vice Chairman of the Administrative Commission of Tianjin Economic-Technological Development Area, and Wayne T. Smith, President of the BASF Polyurethanes Division, have signed a Memorandum of Understanding. “We expect the PU market in China to continue to grow at above-average growth rates,” says Smith. “The strategic location of the city is perfectly suited to serve the fast-growing North China markets including the thriving centers of Beijing, Shenyang and Changchun.” About 12 million people live in this region alone. Belonging to the global network of so far 38 system houses, the new addition represents a major boost to the company’s commitment in China. “The investments will serve to foster and facilitate the development of an environment-friendly, resource-conserving eco-city like Tianjin,” said Dr Melanie Maas-Brunner, Senior Vice President BASF Polyurethanes Asia Pacific, at the ground-breaking ceremony in Tianjin.
Global News

New MDI project in Chongqing, China, has been approved.

BASF received approval for a 400,000 t/a MDI project in Chongqing, China, from China’s National Development and Reform Commission. The facility, which will produce a core component mainly used for polyurethane foams, is expected to start up by 2014.

In addition to the production complex for MDI, BASF is also establishing a new Polyurethane Solutions System House in Chongqing to meet the demand of the growing markets in important industries like construction, appliances, transportation, and footwear. “With these steps, BASF is the first global PU player to show a strong commitment to this important and fast-growing region of China,” said Wayne T. Smith, President of BASF’s Polyurethane Division. BASF estimates that there will be at least 300 permanent jobs created when the plant is operating in full swing. In addition, 17 plants and businesses in the chemical park will begin operation as key partners or suppliers, serving multiple, labor-intensive industries.

New boost to commitment in China.

A new system house is planned in Tianjin, North China, for 2012. Ni Xiangyu, Vice Chairman of the Administrative Commission of Tianjin Economic-Technological Development Area, and Wayne T. Smith, President of the BASF Polyurethanes Division, have signed a Memorandum of Understanding. “We expect the PU market in China to continue to grow at above-average growth rates,” says Smith. “The strategic location of the city is perfectly suited to serve the fast-growing North China markets including the thriving centers of Beijing, Shenyang and Changchun.” About 12 million people live in this region alone. Belonging to the global network of so far 38 system houses, the new addition represents a major boost to the company’s commitment in China. “The investments will serve to foster and facilitate the development of an environment-friendly, resource-conserving eco-city like Tianjin,” said Dr Melanie Maas-Brunner, Senior Vice President BASF Polyurethanes Asia Pacific, at the ground-breaking ceremony in Tianjin.

India’s economy takes off.

One of Asia’s biggest PU exhibitions was held in New Delhi from March 9 – 11, 2011. Every three years, the Indian Polyurethane Association (IPuA) organizes a three-day exhibition here along with a conference that reports on the latest developments, technologies and machines for the production of PU. The polyurethane industry is one of India’s fastest-growing, with double-digit growth rates in the last five years alone. In the coming decade, turnover is even expected to double every four years. A significant increase in PU consumption, manifested in such household goods as mattresses and refrigerators as well as in rapidly growing industries like automotive and construction, is therefore anticipated in India in the next few years.

A fascinating market.

With a new PU system house in Tianjin, BASF is again strengthening its service network in China.

Together a driving force.

In the wake of the successful presentation of the Hyundai i-flow, BASF and Hyundai Kia aim to build on their fruitful cooperation to date. The Hyundai Kia Tech Fair at the Hyundai Research Center in Namyang, South Korea, in November 2010 presented a welcome opportunity for this endeavor. About 2,000 researchers from Hyundai and the BASF Automotive Team discussed at length new applications for the interior and exterior and particularly the scope for new PU engine encapsulation. They also looked at further innovations in energy and weight reduction in automotive engineering as well as markedly improving comfort by cutting noise still further.
"Vita Baltic International" in Lithuania belongs to the Vita Group, a BASF Polyurethanes customer ever since the beginning of raw materials business. The company is supplied with a special polyol mixture and an MDI component for the production of viscoelastic flexible slabstock. In close cooperation with BASF experts the new viscoelastic foam was developed and ready to be brought to the market in 2010. Vita has now received two honors for outstanding quality. For not only is the new viscoelastic foam for mattresses pleasantly open-celled, i.e. air and water vapor permeate readily through it, but it also has a whole range of other exceptional properties. It is highly breathable, displays good recovery capacity and is heat sensitive. In other words, it adapts perfectly to the body by yielding in response to pressure and warmth. All in all, in the field of bedding the foam’s ergonomics encourage healthy, restful sleep. And, by no means least, this Vita product complies with all the usual emission tests. Further information: www.vitabaltic.lt

Innovation Award and Product of the Year: East, west, Vita Baltic foam’s best.

"Vita Baltic International" in Lithuania belongs to the Vita Group, a BASF Polyurethanes customer ever since the beginning of raw materials business. The company is supplied with a special polyol mixture and an MDI component for the production of viscoelastic flexible slabstock. In close cooperation with BASF experts the new viscoelastic foam was developed and ready to be brought to the market in 2010. Vita has now received two honors for outstanding quality. For not only is the new viscoelastic foam for mattresses pleasantly open-celled, i.e. air and water vapor permeate readily through it, but it also has a whole range of other exceptional properties. It is highly breathable, displays good recovery capacity and is heat sensitive. In other words, it adapts perfectly to the body by yielding in response to pressure and warmth. All in all, in the field of bedding the foam’s ergonomics encourage healthy, restful sleep. And, by no means least, this Vita product complies with all the usual emission tests. Further information: www.vitabaltic.lt

New BASF Polyurethane System House in Dubai.

At the beginning of April, BASF has opened its new Polyurethane System House in Dubai, Industrial City. BASF Polyurethanes implemented its strategy of locally operated, customer-oriented system houses. Wayne T. Smith, President BASF Polyurethanes, said: “This investment further emphasizes the significance of the Gulf region for BASF. In Dubai we will strengthen our existing customer relationships, thus expanding our leading position in the polyurethane market.” Dr Uwe Hartwig, Senior Vice President BASF Polyurethanes Europe, is convinced of the advantages of the new site: “Our new system house in Dubai will not only have local sales and production units, it will also provide customers with fast, competent and comprehensive technical service.”
Global News

The closer to the customer, the better.

BASF is moving the manufacturing of its Offshore Subsea Insulation PU Systems to Houston, Texas. The innovative PU systems Elastoshore®, Elastopor® and Elasturan® are used in a variety of mercury-free solutions supplied to the offshore industry, including subsea thermal insulation, structural elastomers, pipe pigs and rigid foam. The move to the Gulf Coast brings BASF, one of the leading suppliers to the subsea industry, closer to its customers, reduces delivery times and improves upon already best-in-class technical service. “Making a capital investment in the Gulf Coast customer base is a critical step toward implementing our strategy of sustainable customer success,” stated Jim Lausch, Manufacturing Director for BASF Polyurethane Solutions in the U.S.A.

Further information: http://www2.basf.us/urethanechemicals/ or please contact Dr. Karl Gust: puroffshore@basf.com

Innovation Award and Product of the Year: East, west, Vita Baltic foam’s best.

“Vita Baltic International” in Lithuania belongs to the Vita Group, a BASF Polyurethanes customer ever since the beginning of raw materials business. The company is supplied with a special polyol mixture and an MDI component for the production of viscoelastic flexible slabstock. In close cooperation with BASF experts the new viscoelastic foam was developed and ready to be brought to the market in 2010. Vita has now received two honors for outstanding quality.

For not only is the new viscoelastic foam for mattresses pleasantly open-celled, i.e. air and water vapor permeate readily through it, but it also has a whole range of other exceptional properties. It is highly breathable, displays good recovery capacity and is heat sensitive. In other words, it adapts perfectly to the body by yielding in response to pressure and warmth. All in all, in the field of bedding the foam’s ergonomics encourage healthy, restful sleep. And, by no means least, this Vita product complies with all the usual emission tests.

Further information: www.vitabaltic.lt

New BASF Polyurethane System House in Dubai.

At the beginning of April, BASF has opened its new Polyurethane System House in Dubai, Industrial City. BASF Polyurethanes implemented its strategy of locally operated, customer-oriented system houses. Wayne T. Smith, President BASF Polyurethanes, said: “This investment further emphasizes the significance of the Gulf region for BASF. In Dubai we will strengthen our existing customer relationships, thus expanding our leading position in the polyurethane market.” Dr Uwe Hartwig, Senior Vice President BASF Polyurethanes Europe, is convinced of the advantages of the new site: “Our new system house in Dubai will not only have local sales and production units, it will also provide customers with fast, competent and comprehensive technical service.”
Amptown cases in Seevetal near Hamburg is the leading manufacturer of flight cases for the music and events industry. Whatever the item – a noble Steinway concert piano, the complete light and sound equipment for the opening of the Olympic Games, the 250 space cannons for the millennium celebration at Berlin’s Victory Column or the complete backstage furnishings for a Shakira concert – Amptown cases ensures that lighting, sound and other equipment reaches their destination safely and soundly. For the events and entertainment industry, Amptown cases is the prime contact for making concerts and other large events a resounding success.

With rock ’n’ roll to an ingenious business idea.

At the beginning of the seventies, today’s co-owner Peter Matthes started ordering amplifiers from the United Kingdom, that were soon much in demand in the music sector. Matthes, an enthusiastic musician himself, would drive to Britain in an old van and returned with an assortment of amplifiers and loudspeakers. And this gave rise to the first business idea, that of equipment hire and sale. At the same time, to transport this delicate equipment safely and get it back in one piece, suitable cases were needed. The basic idea behind Amptown cases was born. Or, as Plant Manager Oliver Dittmann puts it: “It all started with rock ’n’ roll.” And the firm’s name came about almost incidentally. When clearing up in the practice room in a former air-raid bunker, the musicians stacked the various amps and speakers along a wall. The resultant silhouette resembled a city skyline, hence “Amptown”. The company Amptown cases officially got going in Hamburg in 1978, founded by Matthes and his partner Mick Fischer.

A new material, new opportunities – polyurethane makes it all possible.

Business, initially confined to Germany, grew steadily, and in 1998 a sales office was opened in Peterborough, UK, to specifically serve the British and European market. This was also when they started using polyurethane flexible foams for flight cases. The new material opened up new vistas for the events sector. “The use of polyurethane for our flight cases immediately gave our business a new direction,” says Dittmann, who is responsible for managing all production processes. Loudspeakers and technical items were now joined by movable lighting equipment. However, lamps with sensitive electronics and mechanical properties which, in addition, can get hot, call for a different packing material in the cases.

When things get hot, nothing beats a layer of Elastofoam.

Elastofoam®, BASF’s flexible integral PU foam, is ideal for this, as it not only has outstanding cushioning properties, but also withstands high temperatures. However, the best thing about Elastofoam is that it is about 25 percent lighter
Amptown cases in Seevetal near Hamburg is the leading manufacturer of flight cases for the music and events industry. Whatever the item – a noble Steinway concert piano, the complete light and sound equipment for the opening of the Olympic Games, the 250 space cannons for the millennium celebration at Berlin’s Victory Column or the complete backstage furnishings for a Shakira concert – Amptown cases ensures that lighting, sound and other equipment reaches their destination safely and soundly. For the events and entertainment industry, Amptown cases is the prime contact for making concerts and other large events a resounding success.

With rock ‘n’ roll to an ingenious business idea.

At the beginning of the seventies, today’s co-owner Peter Matthes started ordering amplifiers from the United Kingdom, that were soon much in demand in the music sector. Matthes, an enthusiastic musician himself, would drive to Britain in an old van and returned with an assortment of amplifiers and loudspeakers. And this gave rise to the first business idea, that of equipment hire and sale. At the same time, to transport this delicate equipment safely and get it back in one piece, suitable cases were needed. The basic idea behind Amptown cases was born. Or, as Plant Manager Oliver Dittmann puts it: “It all started with rock ‘n’ roll.” And the firm’s name came about almost incidentally. When clearing up in the practice room in a former air-raid bunker, the musicians stacked the various amps and speakers along a wall. The resultant silhouette resembled a city skyline, hence “Amptown”. The company Amptown cases officially got going in Hamburg in 1978, founded by Matthes and his partner Mick Fischer.

A new material, new opportunities – polyurethane makes it all possible.

Business, initially confined to Germany, grew steadily, and in 1998 a sales office was opened in Peterborough, UK, to specifically serve the British and European market. This was also when they started using polyurethane flexible foams for flight cases. The new material opened up new vistas for the events sector. “The use of polyurethane for our flight cases immediately gave our business a new direction,” says Dittmann, who is responsible for managing all production processes. Loudspeakers and technical items were now joined by movable lighting equipment. However, lamps with sensitive electronics and mechanical properties which, in addition, can get hot, call for a different packing material in the cases.

When things get hot, nothing beats a layer of Elastofoam.

Elastofoam®, BASF’s flexible integral PU foam, is ideal for this, as it not only has outstanding cushioning properties, but also withstands high temperatures. However, the best thing about Elastofoam is that it is about 25 percent lighter.
than the previous packaging foam but with much better product characteristics. A special quality of the PU foam system is the damping, which can be varied by adjusting the PU formulation. Other mechanical properties have also been improved, e.g. its tear strength, so that the foam retains its integrity even in the event of minor damage to the surface skin. And then there are visual improvements to the surface and the possibility of producing deep black foams. What is now a complete changeover to polyurethane has also significantly improved the production process. When the polyurethane flexible foam is removed from the mold, no further treatment is now necessary. In view of all these advantages, it’s hardly surprising that BASF and Amptown cases have been engaged in close strategic cooperation since 2009. SiP, Superior Impact Protection, is the name of the inlay of PU foam, a soft core with a heavy-duty exterior, that Amptown cases uses successfully in its flight cases.

For each flight case, color-coated wood is cut to size and the corpus is pre-assembled. This is followed by machining the aluminum for the corners, edges and handles. The PU foam is produced in the company’s own foaming shop. Amptown cases also has its own tool- and moldmaking shop so that it can respond as quickly as possible to customer requests and develop tailor-made solutions. About 40 different molds are currently in use, and 12 inlays of a mold type can thus be produced per day.

50 percent of the cases are custom-built, produced to the special needs of each customer. For extra-small, high-power lamps, sensitive sound mixers with separate keyboards, or Lang Lang’s concert piano, for example. The customers are the equipment suppliers and organizers of the international events industry, and also to a growing extent from other sectors such as motor racing, medical technology and exhibition stand constructors. Whenever it’s a question of packing sensitive equipment safely, Amptown cases is in big demand.

Only when the customer is 100 percent satisfied have we done a 100 percent job.

“Packing alone has long ceased to be our sole activity, for today we also increasingly are developing intelligent packaging solutions that facilitate logistics and transport,” Oliver Dittmann explains. “We want to generate appreciable added value for the customer. And we can only achieve this with the combination of outstanding products and immaculate logistical solutions.”

No small matter, when one considers that an average event brings together some 250 metric tons of equipment that have to punctually reach their final destination in front of, on and behind the stage. And it wouldn’t be a bad thing if there were more of them, because Amptown cases intends to expand its production and build on its international market position. A new, lightweight variant is already in the design pipeline – inevitably containing integral foam from BASF.
than the previous packaging foam but with much better product characteristics. A special quality of the PU foam system is the damping, which can be varied by adjusting the PU formulation. Other mechanical properties have also been improved, e.g. its tear strength, so that the foam retains its integrity even in the event of minor damage to the surface skin. And then there are visual improvements to the surface and the possibility of producing deep black foams. What is now a complete changeover to polyurethane has also significantly improved the production process. When the polyurethane flexible foam is removed from the mold, no further treatment is now necessary. In view of all these advantages, it’s hardly surprising that BASF and Amptown cases have engaged in close strategic cooperation since 2009. SiP, Superior Impact Protection, is the name of the inlay of PU foam, a soft core with a heavy-duty exterior, that Amptown cases uses successfully in its flight cases. For each flight case, color-coated wood is cut to size and the corpus is pre-assembled. This is followed by machining the aluminum for the corners, edges and handles. The PU foam is produced in the company’s own foaming shop. Amptown cases also has its own tool- and moldmaking shop so that it can respond as quickly as possible to customer requests and develop tailor-made solutions. About 40 different molds are currently in use, and 12 inlays of a mold type can thus be produced per day.

50 percent of the cases are custom-built, produced to the special needs of each customer. For extra-small, high-power lamps, sensitive sound mixers with separate keyboards, or Lang Lang’s concert piano, for example. The customers are the equipment suppliers and organizers of the international events industry, and also to a growing extent from other sectors such as motor racing, medical technology and exhibition stand constructors. Whenever it’s a question of packing sensitive equipment safely, Amptown cases is in big demand.

Only when the customer is 100 percent satisfied have we done a 100 percent job.

“Packing alone has long ceased to be our sole activity, for today we also increasingly are developing intelligent packaging solutions that facilitate logistics and transport,” Oliver Dittmann explains. “We want to generate appreciable added value for the customer. And we can only achieve this with the combination of outstanding products and immaculate logistical solutions.”

No small matter, when one considers that an average event brings together some 250 metric tons of equipment that have to punctually reach their final destination in front of, on and behind the stage. And it wouldn’t be a bad thing if there were more of them, because Amptown cases intends to expand its production and build on its international market position. A new, lightweight variant is already in the design pipeline – inevitably containing integral foam from BASF.
Rising oil and gas prices and global warming are making the public increasingly aware of the need to conserve energy. What many people do not realize, however, is that, after building heating, water heating is the second-biggest consumer of energy in private households. And it is precisely here that Stiebel Eltron, one of the leading manufacturers of household appliances and systems, and BASF Polyurethanes GmbH in Lemförde have taken their cue in their joint project for the future. With reference to an eco-efficiency analysis produced by BASF, the two companies have developed the prototype of a water cylinder based on one of Stiebel Eltron's existing market-leading products with the aim of significantly reducing the energy consumption of water heating.

**Tap the full potential: more energy efficiency with PU insulation.**

The eco-efficiency analysis is a strategic tool for investigating the cost and environmental impact of products, processes and entire system solutions. The background to this is that, even during periods in which the water cylinder (also known as a water heater) keeps water hot, energy is lost. And this has to be supplemented with additional heating. How much supplementary energy is required depends firstly on the design of the storage cylinder and secondly on the type of insulation.

**Stiebel Eltron has been developing and manufacturing technically superlative products since 1924.**

With hot water cylinders ranking among the leading products on the market in terms of efficiency and technology, the family company has made a name for itself as a quality supplier of household appliances and systems. In their joint research project, Stiebel Eltron and the Appliances section of BASF Polyurethanes are now pursuing the goal of making good products even better. “We also hope that we shall help to make people more aware of energy efficiency in the water heating sector,” explains Ralf-Rainer Nolte, Technical Manager for water cylinders and solar systems at Stiebel Eltron.
Rising oil and gas prices and global warming are making the public increasingly aware of the need to conserve energy. What many people do not realize, however, is that, after building heating, water heating is the second-biggest consumer of energy in private households. And it is precisely here that Stiebel Eltron, one of the leading manufacturers of household appliances and systems, and BASF Polyurethanes GmbH in Lemförde have taken their cue in their joint project for the future. With reference to an eco-efficiency analysis produced by BASF, the two companies have developed the prototype of a water cylinder based on one of Stiebel Eltron’s existing market-leading products with the aim of significantly reducing the energy consumption of water heating.

Tap the full potential: more energy efficiency with PU insulation.

The eco-efficiency analysis is a strategic tool for investigating the cost and environmental impact of products, processes and entire system solutions. The background to this is that, even during periods in which the water cylinder (also known as a water heater) keeps water hot, energy is lost. And this has to be supplemented with additional heating. How much supplementary energy is required depends firstly on the design of the storage cylinder and secondly on the type of insulation.

Stiebel Eltron has been developing and manufacturing technically superlative products since 1924.

With hot water cylinders ranking among the leading products on the market in terms of efficiency and technology, the family company has made a name for itself as a quality supplier of household appliances and systems. In their joint research project, Stiebel Eltron and the Appliances section of BASF Polyurethanes are now pursuing the goal of making good products even better. “We also hope that we shall help to make people more aware of energy efficiency in the water heating sector,” explains Ralf-Rainer Nolte, Technical Manager for water cylinders and solar systems at Stiebel Eltron.
The result of the eco-efficiency analysis confirms that the energy efficiency of a technologically highly advanced water cylinder can be improved still further with intelligent insulation so that freestanding cylinders match the already high standard of wall-mounted cylinders. “Even if today’s water cylinders operate highly efficiently already, it should be possible with our jointly developed solutions to save a further 30 percent of heating energy,” explains Philippe Kormann, in charge of European water cylinder business at BASF Polyurethanes. The thickness of the insulation with the Elastopor® H PU system has been increased in certain places, while the polyurethane rigid foam has been improved yet again, explains Bernd Fricke, who is responsible for the technical side of the project. As a result, the right PU foam in the right places plus the expertise of one of the leading manufacturers of water cylinders helps to exploit potential and make even more efficient use of energy in the future.

Paving the way for a better energy efficiency.

The introduction of a labeling system for water cylinders in Europe similar to that for refrigerators is currently in preparation. This classification is intended to make the efficiency of water cylinders obvious at first glance to end-consumers. With this forward-looking project, Stiebel Eltron and BASF have laid the foundations for staying up with the leaders in the long term when it comes to energy efficiency.

More effective insulation helps to maintain the water temperature in the cylinder with lower energy input and is therefore always a big step along the “royal road” to an even better ecological profile.

Insulation plays a key role – be it for water cylinders or refrigerators.

And it is precisely here that the project realized by Stiebel Eltron with BASF takes its cue. The project kicked off with an in-depth analysis of the performance of existing water cylinders, which was set against design and insulation. The two companies then set about identifying optimization potential, and this culminated ultimately in the design of the prototype of the “Small Cylinder of the Future”, as it was known during the project. During a comprehensive eco-efficiency analysis of this prototype, the picture was broadened to also encompass the ecological impact of the production and recycling stages. The tools used for this have obtained multiple certifications and have been successfully employed in many other cases. As expected, it transpires that energy consumption during the phase of the water storage unit’s use overshadows everything else – we’re talking about a service life of 15 to 20 years. By comparison, refrigerators are often decommissioned after only half the time. This means that insulation does indeed have a key role to play.

This forward-looking project is a very good example of the role that modern chemistry can play in the service of the environment.

The insulation requirements of polyurethane foams for this field of application are high. For instance, the cell gas in the interior of a PU foam expands during operation of a hot water cylinder rather than contracting as with fridges. And this has to be taken into account in the design of the foam. To this end, BASF has improved its Elastopor H water-blown polyurethane system yet again. It has greater flexibility than that required in fridges for example, while still retaining its shape and dimensions on exposure to heat.

“This forward-looking project is a very good example of the role that modern chemistry can play in the service of the environment,” says a confident Rüdiger Voss, head of Appliances at BASF Polyurethanes. It also shows what’s possible when two technology leaders with entirely different approaches combine their expertise and innovative powers.

Further information: www.stiebel-eltron.de
Contact: bernd.fricke@basf.com
Phone: +49 5443 12 2719
The result of the eco-efficiency analysis confirms that the energy efficiency of a technologically highly advanced water cylinder can be improved still further with intelligent insulation so that freestanding cylinders match the already high standard of wall-mounted cylinders. “Even if today’s water cylinders operate highly efficiently already, it should be possible with our jointly developed solutions to save a further 30 percent of heating energy,” explains Philippe Kormann, in charge of European water cylinder business at BASF Polyurethanes. The thickness of the insulation with the Elastopor® H PU system has been increased in certain places, while the polyurethane rigid foam has been improved yet again, explains Bernd Fricke, who is responsible for the technical side of the project. As a result, the right PU foam in the right places plus the expertise of one of the leading manufacturers of water cylinders helps to exploit potential and make even more efficient use of energy in the future.

Paving the way for a better energy efficiency.

The introduction of a labeling system for water cylinders in Europe similar to that for refrigerators is currently in preparation. This classification is intended to make the efficiency of water cylinders obvious at first glance to end-consumers. With this forward-looking project, Stiebel Eltron and BASF have laid the foundations for staying up with the leaders in the long term when it comes to energy efficiency.

More effective insulation helps to maintain the water temperature in the cylinder with lower energy input and is therefore always a big step along the “royal road” to an even better ecological profile.

Insulation plays a key role – be it for water cylinders or refrigerators.

And it is precisely here that the project realized by Stiebel Eltron with BASF takes its cue. The project kicked off with an in-depth analysis of the performance of existing water cylinders, which was set against design and insulation. The two companies then set about identifying optimization potential, and this culminated ultimately in the design of the prototype of the “Small Cylinder of the Future”, as it was known during the project. During a comprehensive eco-efficiency analysis of this prototype, the picture was broadened to also encompass the ecological impact of the production and recycling stages. The tools used for this have obtained multiple certifications and have been successfully employed in many other cases. As expected, it transpires that energy consumption during the phase of the water storage unit’s use overshadows everything else – we’re talking about a service life of 15 to 20 years. By comparison, refrigerators are often decommissioned after only half the time. This means that insulation does indeed have a key role to play.

This forward-looking project is a very good example of the role that modern chemistry can play in the service of the environment.

The insulation requirements of polyurethane foams for this field of application are high. For instance, the cell gas in the interior of a PU foam expands during operation of a hot water cylinder rather than contracting as with fridges. And this has to be taken into account in the design of the foam. To this end, BASF has improved its Elastopor H water-blown polyurethane system yet again. It has greater flexibility than that required in fridges for example, while still retaining its shape and dimensions on exposure to heat.

“This forward-looking project is a very good example of the role that modern chemistry can play in the service of the environment,” says a confident Rüdiger Voss, head of Appliances at BASF Polyurethanes. It also shows what’s possible when two technology leaders with entirely different approaches combine their expertise and innovative powers.

Further information: www.stiebel-eltron.de
Contact: bernd.fricke@basf.com
Phone: +49 5443 12 2719

How to make good products even better with the right PU foam.

Elastopor H insulation fits snugly around the “Small Cylinder of the Future”.
Safety barriers of Tecpro blocks protect man and machine at many race circuits.

Accidents and drivers losing control of their vehicles are not uncommon in Formula 1 races. However, although cars catapult at high speed from the track, they’re still kept on the circuit by a safety barrier lining the course. These barriers (positioned at all danger spots) used to consist of old tires – a system that is now being superseded by a much more effective and safer solution. Tecpro safety blocks manufactured by Tecpro Barriers in Aubagne, France, feature up to 40 percent higher impact absorption than tires. This property, a result of six years of development and numerous crash tests, has delighted organizers of motor racing events worldwide. Be it in Monaco, Barcelona, Monza, Silverstone, Abu Dhabi, Singapore or Valencia, Tecpro safety blocks are already a familiar sight on international race circuits. And they will soon be in service on other high-speed race courses as well.

Spinning off (relative) safety.

Rotoplast, one of the suppliers of Tecpro for Formula 1 blocks, has invested heavily in production lines. Because, apart from F1 blocks, these lines will also enable it to develop rotational molds and foaming processes for other customers and purposes. BASF Polyurethanes France produces the foam contained today in the safety blocks of most of the world’s large F1 race circuits. Weighing 120 kilos, each block measures 1.2 x 1.5 meters. Since one end is concave and the other convex, they interlock to form continuous barriers, which are lashed firmly together with straps.

Teamwork yields the best results – in motor racing and in the development of safety blocks.

Rotoplast employs rotational molding and foaming techniques to manufacture the blocks for Tecpro. The polyethylene block is shaped around a steel sheet and filled with a mixture of two liquid components that expand on reaction. “The interior of the block has a volume of 900 liters, and this is filled with an open-celled rigid foam with a density of 20 g/liter,” explains Yves Bonnet, Technical Advisor at BASF Polyurethanes France. “This product manufactured at our plant in Mitry-Mory exhibits a very high degree of deformation.” Filling the block is a quite complicated process and has been performed by Rotoplast itself for many years now.

From Silverstone to golden buoys.

“The first practical tests were conducted at the development center in Mitry-Mory,” Yves Bonnet adds. During the filling process and the fifteen minutes required for polymerization, the block is held firmly in shape to prevent any deformation. Rotoplast today has a full command of this technology. And BASF Polyurethanes France is already considering contributing its foam to other Rotoplast applications – one of these being the production of buoys. After all, there’s (almost) nothing than cannot be transformed by a polyurethane idea into a genuinely successful product.

New formula for Formula 1.

Call our number: Yves Bonnet, Chemical Engineer and Technical Advisor, CASE Division BASF Polyurethanes France, +33 1 6021 4215 or send an e-mail to yves.bonnet@basf.com
New formula for Formula 1.

Safety barriers of Tecpro blocks protect man and machine at many race circuits.

Accidents and drivers losing control of their vehicles are not uncommon in Formula 1 races. However, although cars catapult at high speed from the track, they’re still kept on the circuit by a safety barrier lining the course. These barriers (positioned at all danger spots) used to consist of old tires—a system that is now being superseded by a much more effective and safer solution. Tecpro safety blocks manufactured by Tecpro Barriers in Aubagne, France, feature up to 40 percent higher impact absorption than tires. This property, a result of six years of development and numerous crash tests, has delighted organizers of motor racing events worldwide. Be it in Monaco, Barcelona, Monza, Silverstone, Abu Dhabi, Singapore or Valencia, Tecpro safety blocks are already a familiar sight on international race circuits. And they will soon be in service on other high-speed race courses as well.

Spinning off (relative) safety.

Rotoplast, one of the suppliers of Tecpro for Formula 1 blocks, has invested heavily in production lines. Because, apart from F1 blocks, these lines will also enable it to develop rotational molds and foaming processes for other customers and purposes. BASF Polyurethanes France produces the foam contained today in the safety blocks of most of the world’s large F1 race circuits. Weighing 120 kilos, each block measures 1.2 x 1.5 meters. Since one end is concave and the other convex, they interlock to form continuous barriers, which are lashed firmly together with straps.

Teamwork yields the best results—in motor racing and in the development of safety blocks.

Rotoplast employs rotational molding and foaming technologies to manufacture the blocks for Tecpro. The polyethylene block is shaped around a steel sheet and filled with a mixture of two liquid components that expand on reaction. “The interior of the block has a volume of 900 liters, and this is filled with an open-cell rigid foam with a density of 20 g/liter,” explains Yves Bonnet, Technical Advisor at BASF Polyurethanes France. “This product manufactured at our plant in Mitry-Mory exhibits a very high degree of deformation.” Filling the block is a quite complicated process and has been performed by Rotoplast itself for many years now.

From Silverstone to golden buoys.

“The first practical tests were conducted at the development center in Mitry-Mory,” Yves Bonnet adds. During the filling process and the fifteen minutes required for polymerization, the block is held firmly in shape to prevent any deformation. Rotoplast today has a full command of this technology. And BASF Polyurethanes France is already considering contributing its foam to other Rotoplast applications—one of these being the production of buoys. After all, there’s (almost) nothing than cannot be transformed by a polyurethane idea into a genuinely successful product.

Call our number: Yves Bonnet, Chemical Engineer and Technical Advisor, CASE Division BASF Polyurethanes France, +33 1 6021 4215 or send an e-mail to: yves.bonnet@basf.com
This windshield is quite something. Extending from the hood to the B-pillar, it measures a remarkable 1.5 meters – which amounts to more than a third of the vehicle’s total length. To give such a large surface sufficient strength, Opel’s engineers had to pull out all the development stops – a total of eleven patents are now pending. The outcome is nothing less than remarkable. According to the manufacturer, the Panorama GTC is just as strong as the three-door vehicle with a steel roof.

Getting into the Astra GTC with its panoramic windshield for the first time, you can’t help being amazed. In places where, on other cars, the field of vision is delimited by steel and fabric, there is glass and yet more glass. Because the windshield extends from the end of the hood to well behind the heads of the front-seat passengers, you can see more of the world than in any other series-produced car – including convertibles. The experience is a bit like being at the movie theater when the curtain opens a little more after the commercials. Viewed from the car, familiar landscapes suddenly gain a new appeal, and city skyscrapers suddenly have roofs. What’s more, there’s a strong market trend toward larger windows.
This windshield is quite something. Extending from the hood to the B-pillar, it measures a remarkable 1.5 meters – which amounts to more than a third of the vehicle’s total length. To give such a large surface sufficient strength, Opel’s engineers had to pull out all the development stops – a total of eleven patents are now pending. The outcome is nothing less than remarkable. According to the manufacturer, the Panorama GTC is just as strong as the three-door vehicle with a steel roof.

Getting into the Astra GTC with its panoramic windshield for the first time, you can’t help being amazed. In places where, on other cars, the field of vision is delimited by steel and fabric, there is glass and yet more glass. Because the windshield extends from the end of the hood to well behind the heads of the front-seat passengers, you can see more of the world than in any other series-produced car – including convertibles. The experience is a bit like being at the movie theater when the curtain opens a little more after the commercials. Viewed from the car, familiar landscapes suddenly gain a new appeal, and city skyscrapers suddenly have roofs. What’s more, there’s a strong market trend toward larger windows.
Panorama windscreens of this size are simple to realize with WST technology.

One reason for so much light and space is light-stable COLO-FAST® systems from BASF Polyurethanes. For decades in applications around the world, they have proven effective as a glass encapsulation material and are in use with almost all leading manufacturers of glass panes and modules. With COLO-FAST®-WST® (Window Spray Technology), BASF now also has a system for pressureless application to glass in an open mold. This flush glazing technology is only possible with polyurethane. The result is glass and panorama roofs with impressively flush seals and glass panes. Bonded or extruded profiles, on the other hand, have considerable design drawbacks and are more susceptible to dirt. WST technology has much more going for it, such as greater design freedom, a reaction time of less than 45 seconds, reduced reworking and ultimately also lower investment costs. All this is only possible with PU technology.

Splifar in Belgium is the very first company to be granted a license by BASF for COLO-FAST-WST technology and to invest in a production installation. Production with this light-stable PU system has been underway since the end of 2010. Lode Maes, Works Manager at Splifar in Gilly, Belgium, is optimistic: “We're convinced of market success with new WST® technology.”

Flush surfaces are the goal of COLO-FAST-WST technology – and this also applies to the solar industry.

After taking over window encapsulation business from Recticel in 2009, BASF immediately initiated the development of a COLO-FAST system series in line with the latest requirements of REACH. These systems have been undergoing successful launch in Europe and Asia since the end of 2010. The sights are now clearly set on the next projects. In the pipeline are large, complex windows (of laminated or toughened safety glass) for cars and commercial vehicles with COLO-FAST-WST technology and, for 2011, concrete plans for a windshield for a truck manufacturer. For why shouldn’t the philosophy of BASF Polyurethanes apply to this product category as well: “There’s (almost) nothing that cannot be improved with PU and a good idea.”

Asia changes over to lead-free glass encapsulation systems.

Within a matter of a few months, the BASF Team Asia has changed its product portfolio over to lead-free glass encapsulation systems in accordance with the new provisions of REACH. The new systems have already been successfully introduced at 15 customers in Asia – a step forward not only for customers, but also for the environment.

In addition to the automotive industry, product managers at BASF have also been investigating other growth markets for COLO-FAST-WST technology, including the solar industry. The possibility of producing integrated flush photovoltaic panels and solar collectors with it improves water management of the roof, i.e. prevents moisture penetration, and counteracts dirt accumulation by improving rainwater run-off. What’s more, COLO-FAST protects the edges of panels and collectors from breakage during shipment and installation.

Call our number: André Cooreman, Sales Manager PU systems Europe, +32 475 36 0005 or send an e-mail to andre.cooreman@basf.com
Panorama windscreens of this size are simple to realize with WST technology.

One reason for so much light and space is light-stable COLO-FAST® systems from BASF Polyurethanes. For decades in applications around the world, they have proven effective as a glass encapsulation material and are in use with almost all leading manufacturers of glass panes and modules. With COLO-FAST®-WST® (Window Spray Technology), BASF now also has a system for pressureless application to glass in an open mold. This flush glazing technology is only possible with polyurethane. The result is glass and panorama roofs with impressively flush seals and glass panes. Bonded or extruded profiles, on the other hand, have considerable design drawbacks and are more susceptible to dirt. WST technology has much more going for it, such as greater design freedom, a reaction time of less than 45 seconds, reduced reworking and ultimately also lower investment costs. All this is only possible with PU technology.

Splifar in Belgium is the very first company to be granted a license by BASF for COLO-FAST-WST technology and to invest in a production installation. Production with this light-stable PU system has been underway since the end of 2010. Lode Maes, Works Manager at Splifar in Gilly, Belgium, is optimistic: “We’re convinced of market success with new WST® technology.”

Flush surfaces are the goal of COLO-FAST-WST technology – and this also applies to the solar industry.

In addition to the automotive industry, product managers at BASF have also been investigating other growth markets for COLO-FAST-WST technology, including the solar industry. The possibility of producing integrated flush photovoltaic panels and solar collectors with it improves water management of the roof, i.e. prevents moisture penetration, and counteracts dirt accumulation by improving rainwater run-off. What’s more, COLO-FAST protects the edges of panels and collectors from breakage during shipment and installation.

Asia changes over to lead-free glass encapsulation systems.

Within a matter of a few months, the BASF Team Asia has changed its product portfolio over to lead-free glass encapsulation systems in accordance with the new provisions of REACH. The new systems have already been successfully introduced at 15 customers in Asia – a step forward not only for customers, but also for the environment.

In addition to the automotive industry, product managers at BASF have also been investigating other growth markets for COLO-FAST-WST technology, including the solar industry. The possibility of producing integrated flush photovoltaic panels and solar collectors with it improves water management of the roof, i.e. prevents moisture penetration, and counteracts dirt accumulation by improving rainwater run-off. What’s more, COLO-FAST protects the edges of panels and collectors from breakage during shipment and installation.
In March 2010, the Geneva Motor Show showcased a spectacular vehicle. Standing out from the crowd of models from various car makers was a beautifully designed concept car packed with BASF expertise. The i-flow, as the revolutionary car has been dubbed, was developed by Hyundai Motors under a totally novel design philosophy. Hyundai is already one of the world’s top five car manufacturers. And through cooperation with BASF, a good deal of new high-tech has gone into the development of the concept car – in terms of comfort, improved fuel consumption, lightweight body and reduced emission values. This is simply ground-breaking, environment-friendly technology.

Progressive BASF technology gives Hyundai’s new models a genuine competitive edge.

BASF cooperates closely with Hyundai Motors in Korea. With the sights set on seat foam production with a new polyurethane system for the coming 2010 Hyundai models, the complex task was approached with immense enthusiasm in the face of tight deadlines. Hyundai’s production department for car seats is the biggest of its kind in Korea. Some 8,500 metric tons of PU are processed here each year. Until the beginning of 2010, BASF Korea had supplied PU systems for only a limited number of car models. But in 2009, work had already got underway on developing seat foam systems for the new Hyundai models. The results were much more encouraging than those of the competition. And this is how successful cooperation came about in May 2010, with the result that the market share at Hyundai Motors rocketed to 76 percent.

More comfort, higher productivity and lower emissions – these are the hallmarks of today’s car seats.

As already mentioned, work started in 2009 in response to Hyundai Motors’ request to develop seat foam technology by June 2010 – in time for completion of the first new models. The technical goal was to improve comfort significantly over previous models, reduce demolding time, and boost output by producing unbreakable foams with much lower VOC emissions – all in all, an extremely exacting and no less environment-friendly project.

“Unbreakable foam” is a real challenge even for the best in the industry.

The toughest task in this project was the development of an unbreakable foam. Because with a non-shrinking, non-crushable foam, it is possible to genuinely improve the process. Normally, mechanical methods are used in the curing process to facilitate the opening of the cells in the foam. The Koreans’ achievement has now been to replace the mechanical process with a chemical one. This means that the modification of the cell structure permits shrinkage-free curing without the application of a further process step.

And the foam displays all the comfort characteristics of conventional seat foams as well as good long-term properties, ergonomic seat shaping and different degrees of rigidity – in fact, even multi-zone seats are possible with it. And there’s another gratifying result of these joint efforts: The development of the new foams has given PU business with Hyundai a considerable boost and paves the way for further cooperation with one of the world’s biggest vehicle engineering companies.

Call our number: KyungMan Kevin-Kim, Team Head of Marketing, Sales & Technical Service – Automotive South Korea, +82 2 3707 7810 or send an e-mail to: kyungman.kim@basf.com
In March 2010, the Geneva Motor Show showcased a spectacular vehicle. Standing out from the crowd of models from various car makers was a beautifully designed concept car packed with BASF expertise. The i-flow, as the revolutionary car has been dubbed, was developed by Hyundai Motors under a totally novel design philosophy. Hyundai is already one of the world’s top five car manufacturers. And through cooperation with BASF, a good deal of new high-tech has gone into the development of the concept car – in terms of comfort, improved fuel consumption, lightweight body and reduced emission values. This is simply ground-breaking, environment-friendly technology.

Progressive BASF technology gives Hyundai’s new models a genuine competitive edge.

BASF cooperates closely with Hyundai Motors in Korea. With the sights set on seat foam production with a new polyurethane system for the coming 2010 Hyundai models, the complex task was approached with immense enthusiasm in the face of tight deadlines. Hyundai’s production department for car seats is the biggest of its kind in Korea. Some 8,500 metric tons of PU are processed here each year. Until the beginning of 2010, BASF Korea had supplied PU systems for only a limited number of car models. But in 2009, work had already got underway on developing seat foam systems for the new Hyundai models. The results were much more encouraging than those of the competition. And this is how successful cooperation came about in May 2010, with the result that the share at Hyundai Motors rocketed to 76 percent.

More comfort, higher productivity and lower emissions – these are the hallmarks of today’s car seats.

As already mentioned, work started in 2009 in response to Hyundai Motors’ request to develop seat foam technology by June 2010 – in time for completion of the first new models. The technical goal was to improve comfort significantly over previous models, reduce demolding time, and boost output by producing unbreakable foams with much lower VOC emissions – all in all, an extremely exacting and no less environment-friendly project.

“Unbreakable foam” is a real challenge even for the best in the industry.

The toughest task in this project was the development of an unbreakable foam. Because with a non-shrinking, non-crushable foam, it is possible to genuinely improve the process. Normally, mechanical methods are used in the curing process to facilitate the opening of the cells in the foam. The Koreans’ achievement has now been to replace the mechanical process with a chemical one. This means that the modification of the cell structure permits shrinkage-free curing without the application of a further process step.

And the foam displays all the comfort characteristics of conventional seat foams as well as good long-term properties, ergonomic seat shaping and different degrees of rigidity – in fact, even multi-zone seats are possible with it. And there’s another gratifying result of these joint efforts: The development of the new foams has given PU business with Hyundai a considerable boost and paves the way for further cooperation with one of the world’s biggest vehicle engineering companies.

With plenty of skill and huge personal commitment, BASF Korea has developed a new seat foam technology in record time.
Passenger Compartment

When Toyota Motor Corporation asked Concept Industries to develop a solution for the rear cargo floor deckboard for their Lexus RX350, they needed a local supplier that could save them time, improve logistics, and reduce importing expenses, while delivering a product that was a best-in-class in performance.

Shawn Eshragh, President and CEO of Concept Industries, understood and was confident that his team would meet this challenge. But Shawn set a higher bar: engineer sustainability into the very fabric of this deckboard.

This was Toyota Motor Company, after all, the company that mainstreamed hybrid cars and transformed manufacturing practices with their visionary, no-waste lean production practices with their visionary, no-waste lean production practices, reasoned Eshragh. “Set the bar higher and higher,” practices with their visionary, no-waste lean production practices, reasoned Eshragh. “Set the bar higher and higher,”

Shawn Eshragh, President and CEO of Concept Industries, understood and was confident that his team would meet this challenge. But for Concept Industries, this was not a new paradigm.

Light, strong and durable – structural components using natural fibres have got a lot going for them.

Concept Industries, also a leader in sustainable manufacturing, processes the fibers of kenaf, a rapidly renewable crop, and weaves the fibers into mats impregnated with resin and molded into finished boards. They knew they wanted to incorporate this sustainable technology if possible, but first they needed to fully understand the required performance standards. Beyond all else, the deckboard needed strength and stiffness, since the rear storage area of a sport utility vehicle needs to hold heavy weights. And to satisfy Toyota’s legendary energy efficiency standards, it also needed to be light.

Once Concept Industries and Toyota analyzed detailed performance data and specifications, the team began comparing a variety of different technologies starting with the traditional construction made from a fiberglass-based composite. Other alternatives tested and reviewed included materials based on polypropylene, blow-molded plastic, hardboard systems and an innovative new design created by Concept Industries and BASF.

New lightweight design with kenaf natural fibres and PU.

This novel alternative was a sandwich panel consisting of kenaf fiber skins bonded together with a lightweight, poured-in-place BASF rigid polyurethane foam core. Developed side by side with the technical expertise of BASF’s Dave Phelps and Concept’s product development team, this alternative was the clear winner; striking the perfect balance between high performance, sustainable manufacturing and production efficiency.

This singular innovation made Robert Young, Vice President of purchasing at Toyota Motor Engineering & Manufacturing North America, Inc. declare: “Concept Industries’ commitment to sustainability and continuous improvement is key to achieving Toyota’s long-term focus on quality and value.”

An award from Toyota for a truly sustainable technology of the future.

For this deckboard design, Concept Industries was recognized by Toyota Motor Corporation as a winner of the automaker’s Technology and Development Award. The honor, which recognizes top performance in innovation and development during the past year, was presented on February 25 at Toyota’s (TM) 2011 Global Supplier Convention in Nagoya, Japan. The Technology and Development Award represents one of the automaker’s highest supplier honors.

“Concept Industries has always been about more than simple products. We believe we have a responsibility to work for the betterment of mankind. We are obligated to act in the best interest of our employees and the environment to ensure that our actions support a strong and sustainable future for ourselves and our children. Toyota’s recognition of this sustainable composite technology reinforces Toyota’s shared commitment to this vision,” said Shawn Eshragh.

“BASF is focused on the development of sustainable solutions. This recent collaboration with Concept Industries is an excellent example of market-driven innovation. The combination of lightweight materials, superior load strength and renewable materials makes it a very compelling solution,” stated Joel Johnson, Vice President, BASF Polyurethane Systems.

Further information: www.conceptid.com
Contact: Robert Lyons, Market Development Manager, BASF Corp., e-mail: robert.lyons@basf.com

Kenaf: The old reNEWable resource.

Kenaf, a crop that dates back to ancient Egypt, is being rediscovered as a sustainable alternative to wood and cotton. Today eco-conscious companies use this fast-growing plant to make paper, cloth, engineered wood, animal bedding, packing, and as an ingredient in plastic composites, to name just a few.

A rapidly renewable resource, kenaf can grow as much as 12 to 14 feet in as little as 4 to 5 months, yielding 3 to 5 times more fiber than southern pines for equal acreage, which takes 7 to 40 years to reach harvestable size. According to the U.S. Department of Agriculture, kenaf can yield 6 to 10 tons of dry fiber per acre annually. Kenaf also flourishes as a crop in many parts of the U.S., but unlike another rapidly renewable wood alternative, bamboo, is not invasive.
When Toyota Motor Corporation asked Concept Industries to develop a solution for the rear cargo floor deckboard for their Lexus RX350, they needed a local supplier that could save them time, improve logistics, and reduce importing expenses, while delivering a product that was a best-in-class in performance.

Shawn Eshragh, President and CEO of Concept Industries, understood and was confident that his team would meet this challenge. But Shawn set a higher bar: engineer sustainability into the very fabric of this deckboard. This was Toyota Motor Company, after all, the company that mainstreamed hybrid cars and transformed manufacturing ability into the very fabric of this deckboard.

Shawn Eshragh, President and CEO of Concept Industries, also a leader in sustainable manufacturing, reasoned Eshragh. “Set the bar higher and higher,” practices with their visionary, no-waste lean production practices. “Saving and reducing waste is the key to achieving Toyota’s legendary energy efficiency standards. Beyond all else, the deckboard needed strength and stiffness, since the rear storage area of a sport utility vehicle needs to hold heavy weights. And to satisfy Toyota’s legendary energy efficiency standards, it also needed to be light.

Concept Industries, also a leader in sustainable manufacturing, processes the fibers of kenaf, a rapidly renewable crop, and weaves the fibers into mats impregnated with resin and molded into finished boards. They knew they wanted to incorporate this sustainable technology if possible, but first they needed to fully understand the required performance standards. Beyond all else, the deckboard needed strength and stiffness, since the rear storage area of a sport utility vehicle needs to hold heavy weights. And to satisfy Toyota’s legendary energy efficiency standards, it also needed to be light.

Once Concept Industries and Toyota analyzed detailed performance data and specifications, the team began comparing a variety of different technologies starting with the traditional construction made from a fiberglass-based composite. Other alternatives tested and reviewed included materials based on polypropylene, blow-molded plastic, hardboard systems and an innovative new design created by Concept Industries and BASF.

New lightweight design with kenaf natural fibres and PU.

This novel alternative was a sandwich panel consisting of kenaf fiber skins bonded together with a lightweight, poured-in-place BASF rigid polyurethane foam core. Developed side by side with the technical expertise of BASF’s Dave Phelps and Concept’s product development team, this alternative was the clear winner; striking the perfect balance between high performance, sustainable manufacturing and production efficiency.

This singular innovation made Robert Young, Vice President of purchasing at Toyota Motor Engineering & Manufacturing North America, Inc. declare: “Concept Industries’ commitment to sustainability and continuous improvement is key to achieving Toyota’s long-term focus on quality and value.”

An award from Toyota for a truly sustainable technology of the future.

For this deckboard design, Concept Industries was recognized by Toyota Motor Corporation as a winner of the automaker’s Technology and Development Award. The honor, which recognizes top performance in innovation and development during the past year, was presented on February 25 at Toyota’s TM2011 Global Supplier Convention in Nagoya, Japan. The Technology and Development Award represents one of the automaker’s highest supplier honors.

“Concept Industries has always been about more than simple products. We believe we have a responsibility to work for the betterment of mankind. We are obligated to act in the best interest of our employees and the environment to ensure that our actions support a strong and sustainable future for ourselves and our children. Toyota’s recognition of this sustainable composite technology reinforces Toyota’s shared commitment to this vision,” said Shawn Eshragh. “BASF is focused on the development of sustainable solutions. This recent collaboration with Concept Industries is an excellent example of market-driven innovation. The combination of lightweight materials, superior load strength and renewable materials makes it a very compelling solution,” stated Joel Johnson, Vice President, BASF Polyurethane Systems.

Further information: www.conceptid.com
Contact: Robert Lyons, Market Development Manager, BASF Corp., e-mail: robert.lyons@basf.com

Kenaf: The old reNEWable resource.

Kenaf, a crop that dates back to ancient Egypt, is being rediscovered as a sustainable alternative to wood and cotton. Today eco-conscious companies use this fast-growing plant to make paper, cloth, engineered wood, animal bedding, packing, and as an ingredient in plastic composites, to name just a few.

A rapidly renewable resource, kenaf can grow as much as 12 to 14 feet in as little as 4 to 5 months, yielding 3 to 5 times more fiber than southern pines for equal acreage, which takes 7 to 8 years to grow. Kenaf can yield 6 to 10 tons of dry fiber per acre annually. Kenaf also flourishes as a crop in many parts of the U.S., but unlike another rapidly renewable wood alternative, bamboo, it is not invasive.

Light, strong and durable – structural components using natural fibres have got a lot going for them.

When Toyota Motor Corporation asked Concept Industries to develop a solution for the rear cargo floor deckboard for their Lexus RX350, they needed a local supplier that could save them time, improve logistics, and reduce importing expenses, while delivering a product that was a best-in-class in performance.

Shawn Eshragh, President and CEO of Concept Industries, understood and was confident that his team would meet this challenge. But Shawn set a higher bar: engineer sustainability into the very fabric of this deckboard.

This was Toyota Motor Company, after all, the company that mainstreamed hybrid cars and transformed manufacturing ability into the very fabric of this deckboard.

Shawn Eshragh, President and CEO of Concept Industries, also a leader in sustainable manufacturing, reasoned Eshragh. “Set the bar higher and higher,” practices with their visionary, no-waste lean production practices. “Saving and reducing waste is the key to achieving Toyota’s legendary energy efficiency standards. Beyond all else, the deckboard needed strength and stiffness, since the rear storage area of a sport utility vehicle needs to hold heavy weights. And to satisfy Toyota’s legendary energy efficiency standards, it also needed to be light.

Once Concept Industries and Toyota analyzed detailed performance data and specifications, the team began comparing a variety of different technologies starting with the traditional construction made from a fiberglass-based composite. Other alternatives tested and reviewed included materials based on polypropylene, blow-molded plastic, hardboard systems and an innovative new design created by Concept Industries and BASF.

New lightweight design with kenaf natural fibres and PU.

This novel alternative was a sandwich panel consisting of kenaf fiber skins bonded together with a lightweight, poured-in-place BASF rigid polyurethane foam core. Developed side by side with the technical expertise of BASF’s Dave Phelps and Concept’s product development team, this alternative was the clear winner; striking the perfect balance between high performance, sustainable manufacturing and production efficiency.

This singular innovation made Robert Young, Vice President of purchasing at Toyota Motor Engineering & Manufacturing North America, Inc. declare: “Concept Industries’ commitment to sustainability and continuous improvement is key to achieving Toyota’s long-term focus on quality and value.”

An award from Toyota for a truly sustainable technology of the future.

For this deckboard design, Concept Industries was recognized by Toyota Motor Corporation as a winner of the automaker’s Technology and Development Award. The honor, which recognizes top performance in innovation and development during the past year, was presented on February 25 at Toyota’s TM2011 Global Supplier Convention in Nagoya, Japan. The Technology and Development Award represents one of the automaker’s highest supplier honors.

“Concept Industries has always been about more than simple products. We believe we have a responsibility to work for the betterment of mankind. We are obligated to act in the best interest of our employees and the environment to ensure that our actions support a strong and sustainable future for ourselves and our children. Toyota’s recognition of this sustainable composite technology reinforces Toyota’s shared commitment to this vision,” said Shawn Eshragh. “BASF is focused on the development of sustainable solutions. This recent collaboration with Concept Industries is an excellent example of market-driven innovation. The combination of lightweight materials, superior load strength and renewable materials makes it a very compelling solution,” stated Joel Johnson, Vice President, BASF Polyurethane Systems.

Further information: www.conceptid.com
Contact: Robert Lyons, Market Development Manager, BASF Corp., e-mail: robert.lyons@basf.com

Kenaf, a crop that dates back to ancient Egypt, is being rediscovered as a sustainable alternative to wood and cotton. Today eco-conscious companies use this fast-growing plant to make paper, cloth, engineered wood, animal bedding, packing, and as an ingredient in plastic composites, to name just a few.

A rapidly renewable resource, kenaf can grow as much as 12 to 14 feet in as little as 4 to 5 months, yielding 3 to 5 times more fiber than southern pines for equal acreage, which takes 7 to 8 years to grow. Kenaf can yield 6 to 10 tons of dry fiber per acre annually. Kenaf also flourishes as a crop in many parts of the U.S., but unlike another rapidly renewable wood alternative, bamboo, it is not invasive.
Joint effort with the shoe experts of Timberland PRO, exceptionally high standards of occupational standards have been achieved. First, there’s the outstanding abrasion resistance ensuring an extra-long life. And then there are the excellent flexural properties for unbeatable wearing and walking comfort and – particularly for the extremely slippery floor surfaces encountered in hotel kitchens and laundries – outstanding slip-resistance. Anyone who has ever worked in this sector knows how important such shoes are in terms of safety and comfort – precisely because, worldwide and without exception, it is always a question of absolute reliability and speed in serving the guest. And not only in steamy kitchens, but also at reception or in room service.

With Elastollan Soft you get a sure footing on any surface – even it’s wet and greasy.

To satisfy all these requirements, Elastollan Soft® and Elastopan® were developed at BASF Polyurethanes and proposed as the best and most comprehensive PU solution for Timberland PRO. Elastollan Soft is well suited for sophisticated design solutions. It provides excellent abrasion resistance and shock absorption and is lightweight and durable. It provides outstanding grip on wet and icy grounds, thus making it a perfect choice for outsoles of occupational shoes.

In addition, the Elastopan PU system is an extremely flexible, hardwearing and easy-to-process PU sole system. By means of a new chemical composition, Elastopan® Grip Tec now not only matches, but also to some extent surpasses the physical properties of high-performance rubber, while reducing shoe weight significantly thanks to its 30 percent lower density.

In the development of shoes, Timberland and BASF Polyurethanes have truly become “sole mates”. One of them’s a globally successful shoe manufacturer who selects only the best components and suppliers for its products. And then there’s BASF Polyurethanes, the developer of high-tech sole systems that satisfies even the most challenging requirements of its customers – and surpasses them more often than not.

With footwear solutions from BASF Polyurethanes, world market leader Timberland produces an outstanding collection of work shoes for the hotel trade, healthcare and other occupational groups.

Timberland, as we all know, is the world market leader in the design, composition and marketing of top-quality footwear, outerwear and accessories. The first guaranteed waterproof boot of the cult brand was manufactured at its company base in Stratham, New Hampshire, U.S.A., in 1973. It’s therefore no surprise that a company that has conquered markets with so much expertise and perfection wants nothing less than the best in the choice of its partners and suppliers.

In the highly competitive hotel sector, you can’t afford to slip up.

In the development of PU soles for work shoes in the hotel trade, as with many other running and work shoes, Timberland is therefore engaged in close cooperation with BASF Polyurethanes. In this

**Elastopan is a big step forward – hard-wearing and easy to process.**

**MOLDED POLYURETHANE INSOLE**

**INVERTED CONE SYSTEM**

**GEOMETRIC DESIGN**

Call our number: Dr Jens Dierssen, Director Regional Business Management Elastollan Thermoelastic Polyurethanes Asia Pacific, +852 2731 3795 or send an e-mail to: jens.dierssen@basf.com

**Footwear Safety Shoes**
With footwear solutions from BASF Polyurethanes, world market leader Timberland produces an outstanding collection of work shoes for the hotel trade, healthcare and other occupational groups.

Timberland, as we all know, is the world market leader in the design, composition and marketing of top-quality footwear, outerwear and accessories. The first guaranteed waterproof boot of the cult brand was manufactured at its company base in Stratham, New Hampshire, U.S.A., in 1973. It’s therefore no surprise that a company that has conquered markets with so much expertise and perfection wants nothing less than the best in the choice of its partners and suppliers.

In the highly competitive hotel sector, you can’t afford to slip up.

In the development of PU soles for work shoes in the hotel trade, as with many other running and work shoes, Timberland is therefore engaged in close cooperation with BASF Polyurethanes. In this joint effort with the shoe experts of Timberland PRO, exceptionally high standards of occupational standards have been achieved. First, there’s the outstanding abrasion resistance ensuring an extra-long life. And then there are the excellent flexural properties for unbeatable wearing and walking comfort and – particularly for the extremely slippery floor surfaces encountered in hotel kitchens and laundries – outstanding slip-resistance. Anyone who has ever worked in this sector knows how important such shoes are in terms of safety and comfort – precisely because, worldwide and without exception, it is always a question of absolute reliability and speed in serving the guest. And not only in steamy kitchens, but also at reception or in room service.

With Elastollan Soft you get a sure footing on any surface – if even it’s wet and greasy.

To satisfy all these requirements, Elastollan Soft® and Elastopan® were developed at BASF Polyurethanes and proposed as the best and most comprehensive PU solution for Timberland PRO. Elastollan Soft is well suited for sophisticated design solutions. It provides excellent abrasion resistance and shock absorption and is lightweight and durable. It provides outstanding grip on wet and icy grounds, thus making it a perfect choice for outsoles of occupational shoes.

In addition, the Elastopan PU system is an extremely flexible, hardwearing and easy-to-process PU sole system. By means of a new chemical composition, Elastopan® Grip Tec now not only matches, but also to some extent surpasses the physical properties of high-performance rubber, while reducing shoe weight significantly thanks to its 30 percent lower density.

In the development of shoes, Timberland and BASF Polyurethanes have truly become “sole mates”. One of them’s a globally successful shoe manufacturer who selects only the best components and suppliers for its products. And then there’s BASF Polyurethanes, the developer of high-tech sole systems that satisfies even the most challenging requirements of its customers – and surpasses them more often than not.

Call our number: Dr Jens Dierssen, Director Regional Business Management Elastollan Thermoelastic Polyurethanes Asia Pacific, +852 2731 3795 or send an e-mail to: jens.dierssen@basf.com
On construction sites, Elastospray is currently the standard to beat. As well as being less expensive, walls insulated with Elastospray have much better insulation values than conventional insulants of the same thickness. This is because of the material’s extremely low thermal conductivity (lambda 0.028 W/(m K)). Thanks to its closed cell structure, Elastospray is also waterproof and creates a reliable barrier against extremes of weather and temperature. It adheres like a second skin and is suitable for virtually any substrate. And, last but not least, it demonstrably improves the building’s structural strength and durability, boosts home comfort and enhances the room climate.

Further information: www.spf.basf.com
Europe: josef.goetz@basf.com
U.S.A.: scott.brodman@basf.com
Asia: johnson.chan@basf.com

There’s hardly an application in the building sector where Elastospray doesn’t yield outstanding results. Whatever the job – insulating flat roofs on new buildings, refurbishing flat roofs on private homes and industrial structures, application to the undersides and interior surfaces of roofs, interior and exterior insulation of external walls or the insulation ceilings and floors – continuous, uniform joints or gaps, thermal bridges is situations.

A further advantage method. Spray application possible and application is quick on virtually all surfaces of flat and pitched roofs, ceilings, walls and floors.

On construction sites, Elastospray is currently the standard to beat.
As well as being less expensive, walls insulated with Elastospray have much better insulation values than conventional insulants of the same thickness. This is because of the material’s extremely low thermal conductivity (lambda 0.028 W/(m K)). Thanks to its closed cell structure, Elastospray is also waterproof and creates a reliable barrier against extremes of weather and temperature. It adheres like a second skin and is suitable for virtually any substrate. And, last but not least, it demonstrably improves the building’s structural strength and durability, boosts home comfort and enhances the room climate.

Further information: www.spf.basf.com
Europe: josef.goetz@basf.com
U.S.A.: scott.brodman@basf.com
Asia: johnson.chan@basf.com

From now on, the high-class spray foam Elastospray replaces Elastopor H.

BASF’s Elastospray is a product targeted directly at installers, architects and builders. New Elastospray is a closed-cell rigid foam for a huge diversity of applications. As construction methods vary according to regions BASF will continue to supply local spray foam brands. In addition, the premium brand WALLTITE® is distributed in Canada, U.S.A., England and Ireland (see article on page 34). Applied in several layers with a spraygun, Elastospray delivers absolutely dependable thermal protection and seals joints. Another special advantage is that the material adapts seamlessly to any substrate, however uneven. Elastospray can be utilized with total ease for interior and exterior insulation and

Now just ask for Elastospray, when you want Elastopor quality.
On construction sites, Elastospray is currently the standard to beat.

As well as being less expensive, walls insulated with Elastospray have much better insulation values than conventional insulants of the same thickness. This is because of the material’s extremely low thermal conductivity (\( \lambda = 0.028 \text{ W/(m K)} \)). Thanks to its closed cell structure, Elastospray is also waterproof and creates a reliable barrier against extremes of weather and temperature. It adheres like a second skin and is suitable for virtually any substrate. And, last but not least, it demonstrably improves the building’s structural strength and durability, boosts home comfort and enhances the room climate.

Further information: www.spf.basf.com
Europe: josef.goetz@basf.com
U.S.A.: scott.brodman@basf.com
Asia: johnson.chan@basf.com

Construction
Spray Foam

Now just ask for Elastospray, when you want Elastopor quality.

The Elastospray product name is being introduced in 2011 for PU spray foam applications in the construction sector.

Until now, this familiar and versatile product has been available by the name of Elastopor\(^{\text{®}}\) H on the market for PU rigid and spray foam. The change of name comes into effect in Europe in April 2011 and will be gradually enforced in the Asian and North American regions thereafter. In some parts of Asia and North America the Elastospray\(^{\text{®}}\) brand name is already being used. The goal of this change is to create a more structured brand architecture and hence a strong, trustworthy name in the construction sector, symbolizing outstanding quality, sustainability and improved energy efficiency worldwide.

From now on, the high-class spray foam Elastospray replaces Elastopor H.

BASF’s Elastospray is a product targeted directly at installers, architects and builders. New Elastospray is a closed-cell rigid foam for a huge diversity of applications. As construction methods vary according to regions BASF will continue to supply local spray foam brands. In addition, the premium brand WALLTITE\(^{\text{®}}\) is distributed in Canada, U.S.A., England and Ireland (see article on page 34). Applied in several layers with a spraygun, Elastospray delivers absolutely dependable thermal protection and seals joints. Another special advantage is that the material adapts seamlessly to any substrate, however uneven. Elastospray can be utilized with total ease for interior and exterior insulation and on virtually all surfaces of flat and pitched roofs, ceilings, walls and floors.

There’s hardly an application in the building sector where Elastospray doesn’t yield outstanding results.

Whatever the job – insulating flat roofs on new buildings, refurbishing flat roofs on private homes and industrial structures, application to the undersides and interior surfaces of roofs, interior and exterior insulation of external walls or the insulation ceilings and floors – continuous, uniform joints or gaps, thermal bridges is situations.

A further advantage method. Spray application possible – accessible and application is quick

On construction sites, Elastospray is currently the standard to beat.

As well as being less expensive, walls insulated with Elastospray have much better insulation values than conventional insulators of the same thickness. This is because of the material’s extremely low thermal conductivity (\( \lambda = 0.028 \text{ W/(m K)} \)). Thanks to its closed cell structure, Elastospray is also waterproof and creates a reliable barrier against extremes of weather and temperature. It adheres like a second skin and is suitable for virtually any substrate. And, last but not least, it demonstrably improves the building’s structural strength and durability, boosts home comfort and enhances the room climate.

Further information: www.spf.basf.com
Europe: josef.goetz@basf.com
U.S.A.: scott.brodman@basf.com
Asia: johnson.chan@basf.com
Sustainability and energy conservation are important principles not only in new building projects, but also when upgrading existing structures. With WALLTITE®, BASF Polyurethanes is making a tangible contribution in this field. Because the purple closed-cell foam can be simply sprayed on, cures in next to no time and delivers a seamless, airtight solution for the insulation of walls and roofs. And with success, for the Building Research Establishment (BRE) that advises the British government and companies in the UK on modern building techniques recommends WALLTITE as a new alternative insulation solution for sustainable building refurbishment. The BRE therefore proposes the PU foam as a highly effective way of upgrading the huge stock of some 26 million buildings in the country by 2050.

WALLTITE brings a whole new dimension to energy-efficient construction and renovation.

Together with Huntingdonshire District Council, BASF has refurbished two homes in the county in the east of England with WALLTITE. In their capacity as pilot projects, the purpose of these two “Green Houses” is to demonstrate the scope for reducing the carbon footprint of homes sustainably, highly efficiently and affordably by resorting to local suppliers and by using efficient products and applications. “The so-called Green House Project is one of the most important pilot schemes for sustainable modernization in the United Kingdom,” explains John Bullen of the BASF Polyurethanes UK System House, which markets WALLTITE in Britain. In this upgrade project, WALLTITE CL100 spray foam was used for the roof and WALLTITE CV100 as a cavity wall injection insulation.

Converting a decaying old terrace into a gem of Victorian architecture for tenants and exhibition visitors.

WALLTITE CL100 was also used in the BRE-assisted project for the modernization of a Victorian terrace in Watford, Hertfordshire, northwest of London. As a result of the refurbishment to improve energy efficiency, the disused Victorian ensemble was converted into a residential and exhibition complex fit for 21st century living. “In this high-profile project, we have also shown how well-suited our product is to the modernization of old buildings and how energy-efficient PU insulation can help to bring down carbon emissions in the UK,” explains Roland Nowicki, Head of Construction at BASF Polyurethanes Europe.

30 percent less heat loss and a cozy room climate – that’s how good WALLTITE is.

By using polyurethane foam, heat loss via the external walls can be reduced by up to 30 percent. The airtight building envelope yields a pleasant room climate, maximizes energy efficiency and reduces the risk of condensation and mold. Another benefit of the PU system is flexibility in its use. The insulation is self-adhesive and adapts perfectly to the contours of the carrier material. WALLTITE is therefore also an ideal solution for the insulation of curved and profiled roofs. And since the UK has the oldest housing stock in Europe, it’s no exaggeration to say that the BASF Polyurethanes UK System House will have plenty on its hands in the next few years.

Further information: www.walltite.com

Splendid insulation.

Airtight thermal insulation, carbon emissions cut by 75 percent, energy costs down by up to GBP 630 per month – WALLTITE shows what’s possible today.
Sustainability and energy conservation are important principles not only in new building projects, but also when upgrading existing structures. With WALLTITE®, BASF Polyurethanes is making a tangible contribution in this field. Because the purple closed-cell foam can be simply sprayed on, cures in next to no time and delivers a seamless, airtight solution for the insulation of walls and roofs. And with success, for the Building Research Establishment (BRE) that advises the British government and companies in the UK on modern building techniques recommends WALLTITE as a new alternative insulation solution for sustainable building refurbishment. The BRE therefore proposes the PU foam as a highly effective way of upgrading the huge stock of some 26 million buildings in the country by 2050.

WALLTITE brings a whole new dimension to energy-efficient construction and renovation.

Together with Huntingdonshire District Council, BASF has refurbished two homes in the county in the east of England with WALLTITE. In their capacity as pilot projects, the purpose of these two “Green Houses” is to demonstrate the scope for reducing the carbon footprint of homes sustainably, highly efficiently and affordably by resorting to local suppliers and by using efficient products and applications. “The so-called Green House Project is one of the most important pilot schemes for sustainable modernization in the United Kingdom,” explains John Bullen of the BASF Polyurethanes UK System House, which markets WALLTITE in Britain. In this upgrade project, WALLTITE CL100 spray foam was used for the roof and WALLTITE CV100 as a cavity wall injection insulation.

Converting a decaying old terrace into a gem of Victorian architecture for tenants and exhibition visitors.

WALLTITE CL100 was also used in the BRE-assisted project for the modernization of a Victorian terrace in Watford, Hertfordshire, northwest of London. As a result of the refurbishment to improve energy efficiency, the disused Victorian ensemble was converted into a residential and exhibition complex fit for 21st century living. “In this high-profile project, we have also shown how well-suited our product is to the modernization of old buildings and how energy-efficient PU insulation can help to bring down carbon emissions in the UK,” explains Roland Nowicki, Head of Construction at BASF Polyurethanes Europe.

30 percent less heat loss and a cozy room climate – that’s how good WALLTITE is.

By using polyurethane foam, heat loss via the external walls can be reduced by up to 30 percent. The airtight building envelope yields a pleasant room climate, maximizes energy efficiency and reduces the risk of condensation and mold. Another benefit of the PU system is flexibility in its use. The insulation is self-adhesive and adapts perfectly to the contours of the carrier material. WALLTITE is therefore also an ideal solution for the insulation of curved and profiled roofs. And since the UK has the oldest housing stock in Europe, it’s no exaggeration to say that the BASF Polyurethanes UK System House will have plenty on its hands in the next few years.

Further information: www.walltite.com
Seal of quality.

For example, in the coating of sewer shafts ...

In the gas chambers of closed sewer shafts, liquid manure tanks or biogas installations, biogenic sulfuric acid can soon cause concrete corrosion. Exposed aggregate and decaying metal components are typical signs of damage such as corrosion, cracking and leakage. A coat of Elastocoat® polyurea rehabilitates the surface, giving it long-term protection from aggressive sulfuric acid. It seals perfectly, and the liquid film curing in a matter of seconds wraps seamlessly around any surface geometry and thus facilitates trouble-free, long-term sealing.

Advantages of Elastocoat polyurea in sewer shafts
- Chemically resistant to biogenic sulfuric acid
- High crack-bridging capacity, over 400 percent elongation at rupture
- Outstanding tensile strength and resistance to tear propagation
- Extremely rapid curing, withstands loading after only an hour
- Highly tolerant of temperature and humidity during processing
- Seamless sealing of breaches and undercuts
- Outstanding adhesion to the substrate
- High resistance to hydrolysis and aging

... or in the long-term refurbishment of chemical tanks ...

To prevent contamination of the groundwater by chemicals leaking from damaged tanks, such tank farms are placed in detention reservoirs known as tank pits (drip pans). Though largely made of concrete, they are themselves at risk of leaking. To prevent such leakages, a sealcoat has to be applied to the concrete. Elastocoat, the polyurea from BASF Polyurethanes, is one of the best materials for this worldwide. Thanks to its chemical composition, seamless Elastocoat can be sprayed even onto complex geometries. Its high reaction speed also permits application in climatic conditions such as high humidity that exclude the use of traditional materials.

Advantages of Elastocoat polyurea in chemical tanks
- Seamless, even on complex geometries
- Very good chemical resistance
- Extremely good bridging of cracks
- Nonslip surface seal
- Easy application to vertical surfaces
- Rapid curing
- Free of solvents and catalysts

... and also on parking decks, a layer of Elastocoat polyurea provides complete cover.

Multi-level parking garages are concrete and steel structures, in most cases with a top level exposed to the elements. The fact is that penetrating moisture is capable of considerably shortening the service life of such structures due to concrete corrosion. The decks are also subjected to high wear from car tires.

Here, again, one of the best materials for a lasting coating is Elastocoat, the high-tech polyurea from BASF Polyurethanes, which is widely used in many sectors owing to its chemical resistance, crack-bridging properties, abrasion resistance and durability as a surface protection.

Advantages of Elastocoat polyurea on parking decks
- Seamless and watertight
- Highly durable and abrasion-resistant on exposure to vehicle traffic
- Crack-bridging membrane adapts to concrete movements
- Chemical-resistant
- Tolerant of temperature and humidity during application
- Parking deck can go into use soon after application
Highly tolerant of temperature and humidity during processing
Seamless sealing of breaches and undercuts
Outstanding adhesion to the substrate
High resistance to hydrolysis and aging

... or in the long-term refurbishment of chemical tanks ...

To prevent contamination of the groundwater by chemicals leaking from damaged tanks, such tank farms are placed in detention reservoirs known as tank pits (drip pans). Though largely made of concrete, they are themselves at risk of leaking. To prevent such leakages, a sealcoat has to be applied to the concrete. Elastocoat, the polyurea from BASF Polyurethanes, is one of the best materials for this worldwide. Thanks to its chemical composition, seamless Elastocoat can be sprayed even onto complex geometries. Its high reaction speed also permits application in climatic conditions such as high humidity that exclude the use of traditional materials.

Advantages of Elastocoat polyurea in chemical tanks
- Seamless, even on complex geometries
- Very good chemical resistance
- Extremely good bridging of cracks
- Nonslip surface seal
- Easy application to vertical surfaces
- Rapid curing
- Free of solvents and catalysts

... and also on parking decks, a layer of Elastocoat polyurea provides complete cover.

Multi-level parking garages are concrete and steel structures, in most cases with a top level exposed to the elements. The fact is that penetrating moisture is capable of considerably shortening the service life of such structures due to concrete corrosion. The decks are also subjected to high wear from car tires.

Here, again, one of the best materials for a lasting coating is Elastocoat, the high-tech polyurea from BASF Polyurethanes, which is widely used in many sectors owing to its chemical resistance, crack-bridging properties, abrasion resistance and durability as a surface protection.

Advantages of Elastocoat polyurea on parking decks
- Seamless and watertight
- Highly durable and abrasion-resistant on exposure to vehicle traffic
- Crack-bridging membrane adapts to concrete movements
- Chemical-resistant
- Tolerant of temperature and humidity during application
- Parking deck can go into use soon after application

In sewer shafts, chemical tanks and car park decks – when it comes to the right coating, you’re always on the safe side with Elastocoat polyurea.

For example, in the coating of sewer shafts ...

In the gas chambers of closed sewer shafts, liquid manure tanks or biogas installations, biogenic sulfuric acid can soon cause concrete corrosion. Exposed aggregate and decaying metal components are typical signs of damage such as corrosion, cracking and leakage. A coat of Elastocoat polyurea rehabilitates the surface, giving it long-term protection from aggressive sulfuric acid. It seals perfectly, and the liquid film curing in a matter of seconds wraps seamlessly around any surface geometry and thus facilitates trouble-free, long-term sealing.

Advantages of Elastocoat polyurea in sewer shafts
- Chemically resistant to biogenic sulfuric acid
- High crack-bridging capacity, over 400 percent elongation at rupture
- Outstanding tensile strength and resistance to tear propagation
- Extremely rapid curing, withstands loading after only an hour

Advantages of Elastocoat polyurea in chemical tanks
- Seamless, even on complex geometries
- Very good chemical resistance
- Extremely good bridging of cracks
- Nonslip surface seal
- Easy application to vertical surfaces
- Rapid curing
- Free of solvents and catalysts

Construction Polyurea

For example, in the coating of sewer shafts ...

In the gas chambers of closed sewer shafts, liquid manure tanks or biogas installations, biogenic sulfuric acid can soon cause concrete corrosion. Exposed aggregate and decaying metal components are typical signs of damage such as corrosion, cracking and leakage. A coat of Elastocoat polyurea rehabilitates the surface, giving it long-term protection from aggressive sulfuric acid. It seals perfectly, and the liquid film curing in a matter of seconds wraps seamlessly around any surface geometry and thus facilitates trouble-free, long-term sealing.

Advantages of Elastocoat polyurea in sewer shafts
- Chemically resistant to biogenic sulfuric acid
- High crack-bridging capacity, over 400 percent elongation at rupture
- Outstanding tensile strength and resistance to tear propagation
- Extremely rapid curing, withstands loading after only an hour

Advantages of Elastocoat polyurea in chemical tanks
- Seamless, even on complex geometries
- Very good chemical resistance
- Extremely good bridging of cracks
- Nonslip surface seal
- Easy application to vertical surfaces
- Rapid curing
- Free of solvents and catalysts

... or in the long-term refurbishment of chemical tanks ...

To prevent contamination of the groundwater by chemicals leaking from damaged tanks, such tank farms are placed in detention reservoirs known as tank pits (drip pans). Though largely made of concrete, they are themselves at risk of leaking. To prevent such leakages, a sealcoat has to be applied to the concrete. Elastocoat, the polyurea from BASF Polyurethanes, is one of the best materials for this worldwide. Thanks to its chemical composition, seamless Elastocoat can be sprayed even onto complex geometries. Its high reaction speed also permits application in climatic conditions such as high humidity that exclude the use of traditional materials.

Advantages of Elastocoat polyurea in chemical tanks
- Seamless, even on complex geometries
- Very good chemical resistance
- Extremely good bridging of cracks
- Nonslip surface seal
- Easy application to vertical surfaces
- Rapid curing
- Free of solvents and catalysts

... and also on parking decks, a layer of Elastocoat polyurea provides complete cover.

Multi-level parking garages are concrete and steel structures, in most cases with a top level exposed to the elements. The fact is that penetrating moisture is capable of considerably shortening the service life of such structures due to concrete corrosion. The decks are also subjected to high wear from car tires.

Here, again, one of the best materials for a lasting coating is Elastocoat, the high-tech polyurea from BASF Polyurethanes, which is widely used in many sectors owing to its chemical resistance, crack-bridging properties, abrasion resistance and durability as a surface protection.

Advantages of Elastocoat polyurea on parking decks
- Seamless and watertight
- Highly durable and abrasion-resistant on exposure to vehicle traffic
- Crack-bridging membrane adapts to concrete movements
- Chemical-resistant
- Tolerant of temperature and humidity during application
- Parking deck can go into use soon after application

In sewer shafts, chemical tanks and car park decks – when it comes to the right coating, you’re always on the safe side with Elastocoat polyurea.
Korea goes new ways.

In cooperation with the Korean partner Shinwoo Concrete, Korea's biggest producer of ecological stone blocks, so-called Bio Blocks, a total of 300 m² of paths have been surfaced with Elastopave®. Shinwoo has been interested in the new BASF Elastocoast® and Elastopave applications since March 2010. The Korean company is committed to new, environment-friendly topics and specializes in ecologically compatible construction products. Shinwoo, domiciled in Korea's Gyeongsangnam-do province, also produces different types of concrete blocks, such as porous concrete and bio-concrete as well as concrete surfaces for river beds.

Paths, roads, open spaces, safety, costs and the environment – with Elastopave, urban planners have everything under control.

BASF Asia Pacific Regional Headquarters invited Shinwoo to the International Conference of Coastal Engineers (ICCE) in Shanghai in July and explained the advantages of the new technologies with polyurethane. The experts present were particularly impressed by the possibility of building water-permeable surfaces with the PU system and giving them highly individual designs to suit their surroundings. Most importantly, these surfaces do not fully seal the surface. The first projects were realized in the fall. In the cities of Miryang and Gimhae, close to the port city of Busan, several footpaths in parks and also cycle paths have been built. Shinwoo even established a new company for this purpose, Shinwoo Bio Block, which uses exclusively BASF PU systems. This sets the product clearly apart from the rest of the range.

Going new ways in Korea with an innovative and highly sustainable approach.

Elastopave is based on the idea of combining mixes of minerals with a polyurethane binder to create a strong and water- and air-permeable wearing course. This intelligent mix of selected minerals creates many interconnected voids that prevent the ground beneath from being sealed off. If the soil is suitably absorbent, rainwater can then seep away without difficulty and enter the water table. For the in some cases continuous rainfall in spring in Korea, the PU system is an exciting alternative. Even in these bad weather conditions, it is still possible to take a walk in large parks without getting wet feet.

Whichever ways you intend to go in the future – with Elastopave you can’t put a foot wrong.

Elastopave is a totally new approach to the construction of traffic surfaces. What makes it different are its ease of application and its extremely high proportion of voids. The mix of minerals and stones can always be selected to produce variants that harmonize smoothly with the character of their surroundings.

Shinwoo Bio Block, South Korea – Facts
Established in: 2000
Korea's biggest Bio Block producer
Employees: 25
Sales in 2010: KRW 15 billion

Further information:
www.bioblock.co.kr
Contact at BASF Korea, Seoul:
Lim.SeungHun@basf.com

Berlin Zoo is also going new ways with Elastopave.

The same PU system is currently being used in different places in Europe. Together with the cooperation partner HanseGrand, a project in Berlin Zoo is being realized in order to give the water buffaloes a more comfortable surface “under hoof”. And this is being followed by the footpaths leading to Sanssouci Palace in Potsdam.
Korea goes new ways.

In cooperation with the Korean partner Shinwoo Concrete, Korea’s biggest producer of ecological stone blocks, so-called Bio Blocks, a total of 300 m² of paths have been surfaced with Elastopave®. Shinwoo has been interested in the new BASF Elastocoast® and Elastopave applications since March 2010. The Korean company is committed to new, environment-friendly topics and specializes in ecologically compatible construction products. Shinwoo, domiciled in Korea’s Gyeongsangnam-do province, also produces different types of concrete blocks, such as porous concrete and bio-concrete as well as concrete surfaces for river beds.

Paths, roads, open spaces, safety, costs and the environment – with Elastopave, urban planners have everything under control.

BASF Asia Pacific Regional Headquarters invited Shinwoo to the International Conference of Coastal Engineers (ICCE) in Shanghai in July and explained the advantages of the new technologies with polyurethane. The experts present were particularly impressed by the possibility of building water-permeable surfaces with the PU system and giving them highly individual designs to suit their surroundings. Most importantly, these surfaces do not fully seal the surface. The first projects were realized in the fall. In the cities of Miryang and Gimhae, close to the port city of Busan, several footpaths in parks and also cycle paths have been built. Shinwoo even established a new company for this purpose, Shinwoo Bio Block, which uses exclusively BASF PU systems. This sets the product clearly apart from the rest of the range.

Going new ways in Korea with an innovative and highly sustainable approach.

Elastopave is based on the idea of combining mixes of minerals with a polyurethane binder to create a strong and water- and air-permeable wearing course. This intelligent mix of selected minerals creates many interconnected voids that prevent the ground beneath from being sealed off. If the soil is suitably absorbent, rainwater can then seep away without difficulty and enter the water table. For the in some cases continuous rainfall in spring in Korea, the PU system is an exciting alternative. Even in these bad weather conditions, it is still possible to take a walk in large parks without getting wet feet.

Whichever ways you intend to go in the future – with Elastopave you can’t put a foot wrong.

Elastopave is a totally new approach to the construction of traffic surfaces. What makes it different are its ease of application and its extremely high proportion of voids. The mix of minerals and stones can always be selected to produce variants that harmonize smoothly with the character of their surroundings.

Further information:
www.bioblock.co.kr
Contact at BASF Korea, Seoul:
Lim.SeungHun@basf.com

Shinwoo Bio Block, South Korea – Facts
Established in: 2000
Korea’s biggest Bio Block producer
Employees: 25
Sales in 2010: KRW 15 billion

Berlin Zoo is also going new ways with Elastopave.

The same PU system is currently being used in different places in Europe. Together with the cooperation partner HanselGrand, a project in Berlin Zoo is being realized in order to give the water buffaloes a more comfortable surface “underhoof”. And this is being followed by the footpaths leading to Sanssouci Palace in Potsdam.
How Elastocoast celebrated its world premiere in a Swiss stream.

Firmly established in coastal protection, Elasto-coast® has now been used for the first time in Switzerland. In the canton of Lucerne, the banks of the Mühlebach stream have been stabilized with the aid of the BASF material. It was also the first application of Elastocoast in a stream worldwide. A roughly 180 meter long section of the stream had to be rehabilitated. The aim was to create a strong and near-natural revetment – an ideal assignment for Elastocoast, because the advantages of the BASF polyurethane system are obvious: It is amenable to quick and simple processing, and flora and fauna benefit from the open structure of the pebble mix. The new revetment now gives nearby residents a sense of security and animals and plants new habitats.

Flood protection and nature conservation in one go – that’s the secret of Elastocoast.

The stabilization of the stream’s banks had become necessary as part of a flood protection scheme. Now that a section of covered drain has been opened up, the Mühlebach can carry more water. The residents of Willisau, once plagued by repeated floods, should now be safe even from extreme flooding. The most recent disaster was in 1988, when one person was killed. Repairing the damage also cost millions, as the municipality of Willisau was awash, and the waters washed large quantities of pebbles and scree onto roads and open spaces.

The Elastocoast revetment now makes its contribution to flood protection and also blends excellently into the surrounding countryside. The material is transparent, making it virtually indistinguishable from a natural surface of loose rock. “It was important for us to create a near-natural surface,” says Michael Schluh, head of the Natural Hazards unit of the Transport and Infrastructure department of Lucerne canton.

Just an hour for curing and just two days for a new, 180 meter long, strong and near-natural section of stream.

Elastocoast not only delivers reliable protection, but also preserves the ecological balance. This is because 50 percent of the plastic employed is derived from renewable resources.

“Elastocoast has undergone ecotoxicological tests at the Fraunhofer Institute. These established that, unlike concrete, it is pH-neutral and totally harmless for fish even during installation,” explains Hellmut Lischer, responsible for Regional Market Development in Switzerland.

In a new record time, five metric tons of pebbles coated with 150 kilograms of plastic material were distributed in the bed. First of all, the workers mixed the two PU components in batches on site. In the concrete mixer, it took the Elastocoast film just five minutes to envelope the rock. The workers then poured the mix into the drained portion of the stream and spread it evenly to create a new pebble bed. The material hardened in only an hour. And the entire section was completed in only two days.

A beautiful sight, highly dependable and good for fish as well.

“A big advantage of Elastocoast is that it is quick and easy to process. With concrete, the job would have taken almost two weeks,” says Hellmut Lischer. “The layer of rock is very stable and extremely strong – perfect for protection from flooding.” Unlike concrete surfaces, the course bonded with Elastocoast absorbs the water’s energy and thus prevents leaching and damage to the base of the stream.

Elastocoast Project Manager Arno Volkmann from Lemförde in northern Germany monitored installation on site. “If you ask me, it’s much nicer to look at than concrete. Sediment will also be deposited and won’t be immediately washed away by the next flood.”

The canton’s fisheries overseer Philipp Amrein is understandably delighted by the stream’s new banks: “They’re good for fish and look good as well.”

Further information:
www.elastocoast.com

Call our number: Arno Volkmann, Technical Sales, New Business Development, +49 5443 12 4250 or send an e-mail to: arno.volkmann@basf.com
Firmly established in coastal protection, Elasto-coast® has now been used for the first time in Switzerland. In the canton of Lucerne, the banks of the Mühlebach stream have been stabilized with the aid of the BASF material. It was also the first application of Elasto-coast in a stream worldwide. A roughly 180 meter long section of the stream had to be rehabilitated. The aim was to create a strong and near-natural revetment – an ideal assignment for Elasto-coast, because the advantages of the BASF polyurethane system are obvious: It is amenable to quick and simple processing, and flora and fauna benefit from the open structure of the pebble mix. The new revetment now gives nearby residents a sense of security and animals and plants new habitats.

Flood protection and nature conservation in one go – that’s the secret of Elasto-coast.

The stabilization of the stream’s banks had become necessary as part of a flood protection scheme. Now that a section of covered drain has been opened up, the Mühlebach can carry more water. The residents of Willisau, once plagued by repeated floods, should now be safe even from extreme flooding. The most recent disaster was in 1988, when one person was killed. Repairing the damage also cost millions, as the municipality of Willisau was awash, and the waters washed large quantities of pebbles and scree onto roads and open spaces.

The Elasto-coast revetment now makes its contribution to flood protection and also blends excellently into the surrounding countryside. The material is transparent, making it virtually indistinguishable from a natural surface of loose rock. “It was important for us to create a near-natural surface,” says Michael Schluh, head of the Natural Hazards unit of the Transport and Infrastructure department of Lucerne canton.

Just an hour for curing and just two days for a new, 180 meter long, strong and near-natural section of stream.

Elastocoast not only delivers reliable protection, but also preserves the ecological balance. This is because 50 percent of the plastic employed is derived from renewable resources. “Elastocoast has undergone ecotoxicological tests at the Fraunhofer Institute. These established that, unlike concrete, it is pH-neutral and totally harmless for fish even during installation,” explains Helmut Lischer, responsible for Regional Market Development in Switzerland.

In a new record time, five metric tons of pebbles coated with 150 kilograms of plastic material were distributed in the bed. First of all, the workers mixed the two PU components in batches on site. In the concrete mixer, it took the Elasto-coast film just five minutes to envelope the rock. The workers then poured the mix into the drained portion of the stream and spread it evenly to create a new pebble bed. The material hardened in only an hour. And the entire section was completed in only two days.

A beautiful sight, highly dependable and good for fish as well.

“A big advantage of Elasto-coast is that it is quick and easy to process. With concrete, the job would have taken almost two weeks,” says Helmut Lischer. “The layer of rock is very stable and extremely strong – perfect for protection from flooding.” Unlike concrete surfaces, the course bonded with Elasto-coast absorbs the water’s energy and thus prevents leaching and damage to the base of the stream.

Elastocoast Project Manager Arno Volkmann from Lemförde in northern Germany monitored installation on site. “If you ask me, it’s much nicer to look at than concrete. Sediment will also be deposited and won’t be immediately washed away by the next flood.”

The canton’s fisheries overseer Philipp Amrein is understandably delighted by the stream’s new banks: “They’re good for fish and look good as well.”

Further information: www.elastocoast.com

Call our number: Arno Volkmann, Technical Sales, New Business Development, +49 5443 12 4250 or send an e-mail to: arno.volkmann@basf.com
Adhesive bandages with a nonwoven fabric of Elastollan are ideal for the reliable and lasting dressing of wounds.

Adhesive bandages – conventionally instant dressings for wounds – basically consist of an absorbent pad covered by adhesive tape. Such conventional bandages are generally used for the first-aid treatment of minor skin grazes, cuts and burns. However, since such dressings are not usually elastic, they are unsuitable for knee or elbow injuries. And often they don’t absorb the discharge from the wound particularly well either.

Small nonwoven, big effect.

One of the leading manufacturers in the field of hydroactive wound dressing, the French company Urgo, has now launched a new bandage, UrgoCel® Lite, which is distinguished by its high elasticity and adaptability as well as its ability to absorb secretions. The pad of this new-generation bandage consists of amicro-adhesive lipido-colloid matrix on the wound side, a thin, absorbent polyurethane foam compress, and an elastic, breathable TPU Elastollan® nonwoven from BASF Polyurethanes.

Adhesive bandages are good – but TPU nonwovens are appreciably better.

The supplier of this new, hydroactive wound dressing is Innovatec Microfibre Technology in Troisdorf, Germany, which manufactures the nonwovens from the TPU from BASF Polyurethanes. And these are employed at Urgo as the outer cover layer or carrier layer for the adhesive that is stuck straight onto the wound.

Thanks to the specific properties of the respective elements, the new TPU nonwoven bandage is capable of effectively dressing acute wounds, 2nd degree burns, grazes, accident injuries and also postoperative wounds with a sensitive environment. Moreover, the TPU nonwoven bandage protects newly forming tissue and creates moist wound conditions, thus additionally encouraging the healing process as well as facilitating the pain-free and atraumatic change of dressing.

As a result, the new UrgoCel Lite plaster comprising a nonwoven fabric made of the TPU from BASF Polyurethanes represents an important step forward in the treatment of wounds and greater flexibility in wound dressing.

Further information: www.melt-blown.com or www.urgo.de

Melt blowing.

Melt blowing is a process in which nonwoven fabrics are produced directly from granules. A special extrusion method combined with high-velocity hot air is used to generate fine-filament webs with various structures. Of outstanding quality, they lend themselves well to further processing.
Adhesive bandages – conventionally instant dressings for wounds – basically consist of an absorbent pad covered by adhesive tape. Such conventional bandages are generally used for the first-aid treatment of minor skin grazes, cuts and burns. However, since such dressings are not usually elastic, they are unsuitable for knee or elbow injuries. And often they don’t absorb the discharge from the wound particularly well either.

**Small nonwoven, big effect.**

One of the leading manufacturers in the field of hydroactive wound dressing, the French company Urgo, has now launched a new bandage, UrgoCel® Lite is distinguished by its high elasticity and adaptability as well as its ability to absorb secretions. The pad of this new-generation bandage consists of amicro-adhesive lipido-colloid matrix on the wound side, a thin, absorbent polyurethane foam compress, and an elastic, breathable TPU Elastollan® nonwoven from BASF Polyurethanes.

**Adhesive bandages are good – but TPU nonwovens are appreciably better.**

The supplier of this new, hydroactive wound dressing is Innovatec Microfibre Technology in Troisdorf, Germany, which manufactures the nonwovens from the TPU from BASF Polyurethanes. And these are employed at Urgo as the outer cover layer or carrier layer for the adhesive that is stuck straight onto the wound.

Thanks to the specific properties of the respective elements, the new TPU nonwoven bandage is capable of effectively dressing acute wounds, 2nd degree burns, grazes, accident injuries and also postoperative wounds with a sensitive environment. Moreover, the TPU nonwoven bandage protects newly forming tissue and creates moist wound conditions, thus additionally encouraging the healing process as well as facilitating the pain-free and atraumatic change of dressing.

As a result, the new UrgoCel Lite plaster comprising a nonwoven fabric made of the TPU from BASF Polyurethanes represents an important step forward in the treatment of wounds and greater flexibility in wound dressing.

Further information: [www.melt-blown.com](http://www.melt-blown.com) or [www.urgo.de](http://www.urgo.de)

---

**Melt blowing.**

Melt blowing is a process in which nonwoven fabrics are produced directly from granules. A special extrusion method combined with high-velocity hot air is used to generate fine-filament webs with various structures. Of outstanding quality, they lend themselves well to further processing.
Polyurethane – one of the most versatile materials of our time. Even in the most difficult application areas it guarantees an enormous freedom of design, in every detail accurate display, an outstanding image of the surface and contours and also an exceptional haptic and especially matt visual effects. Elastoskin® and Elastollan® for instrument panels and the center consoles.

BASF Polyurethanes. Everything else is standard.