Turkish delight as polyurethane market continues to grow

Million dollar MDI investments
A tough approach to flooring
Stepping up footwear innovation
Polyurea goes for gold in Brazil
Investing for Growth with Customers 2

Tony Hankins, President, Huntsman Polyurethanes

Our editorial theme in the last issue of PU review was ‘Investing for Growth with Customers Worldwide’ and we are continuing with that theme for this issue, as we’ve made a number of strategically important investments in recent months that we’d like to highlight.

In the following pages, you’ll read about the $750 million joint venture Huntsman Polyurethanes has established with Sinopec to build and operate a PO / MTBE facility in Nanjing, China. In March we announced $135 million of new investments at our world scale MDI plants in Geismar, USA, and Rotterdam, the Netherlands. And, moving downstream, we’ve acquired a stake in Nippon Aqua, a market leading Japanese polyurethane spray foam business, whilst breaking ground on a new TPU production facility in Jinshan, China.

The main feature of this issue is an interview with the General Manager of our new Turkish systems house, EMA, which we acquired just over a year ago. I had the pleasure of visiting EMA’s site and meeting with key Turkish customers a few months ago and I was struck by the energy and dynamism of both the people and the economy. We have a strong team, full of innovative ideas, and I’m very confident that we’re well positioned to leverage the opportunities offered by this fascinating market.

Innovation is impossible without sustained investment and I believe this issue powerfully displays that Huntsman Polyurethanes is committed to doing just that!

Work starts on new PO / MTBE facility in Nanjing, China

At the end of January the Nanjing Jinling Huntsman New Materials Co., Ltd held a groundbreaking ceremony to celebrate construction of a world scale propylene oxide (PO) and methyl tertiary butyl ether (MTBE) facility in the Nanjing Chemical Industrial Park.

Nanjing Jinling Huntsman New Materials is a joint venture of the Huntsman Chemical Trading (Shanghai) Co., Ltd and Sinopec Jinling Company, a subsidiary of Sinopec. Using world-class technology, the business will produce 550 mm lbs (240 kt) of PO and 1.6 billion lbs (7400 kt) of MTBE per annum.

PO is an intermediate compound used to make high value polyurethane materials ranging from energy efficient home insulation and building materials to comfort foams for automobiles and furniture.

MTBE is a clean burning fuel additive that improves gasoline engine performance and reduces air pollution.

The project has capital costs of approximately $750 million USD (CNY 4.7 billion). Building work is expected to be complete by the end of 2014.

Tina T Wang

Investing for Growth with Customers 2

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Huntsman invests $135 million in MDI plants

With strong ongoing demand for methylene diphenyl diisocyanate (MDI), Huntsman is making major investments at two of its world scale MDI manufacturing facilities. In March 2013 the company announced that it will be increasing capacity at its Geismar site in the United States (U.S.), adding downstream processing capability at its Rotterdam plant in the Netherlands and embarking on a pilot program on-site to explore the greening of the MDI production process.

**Strengthening upstream cost leadership position at Geismar**

Huntsman has announced that it will be expanding operations at its MDI production plant at Geismar, Louisiana. News of the investment broke at a press conference at the site on March 21, 2013, which was hosted by Jon Huntsman Sr., Founder and Executive Chairman of Huntsman. Louisiana State Governor Bobby Jindal was on hand to help kick off the event, which was also attended by leaders from Louisiana’s economic development body; the local parish President; the President and CEO of the parish Economic Development Corp.; and many other community leaders and officials. Nearly 200 plant associates also attended the event.

Geismar capacity will be increased by 50 ktes to 500 ktes using improved process technology developed by Huntsman. The expansion will enable Huntsman to support the growth of its key customers and leverages the significant advantages of the Geismar site, with its access to U.S. shale gas, strong logistics base and excellent integration. The new capacity is expected to come on-stream in 2014 and will further consolidate Huntsman’s position as the leading MDI producer in the Americas region.

Tony Hankins, President of Huntsman Polyurethanes, said: “The benefits of shale gas have significantly improved the economics of investing in U.S. facilities and Huntsman has a number of other investments planned, which will take advantage of lower-cost natural gas. In making this investment we benefited from the support of Louisiana Economic Development and Ascension Parish Economic Development. We’d like to thank both organizations for their cooperation and support. This is an exciting time for the team at Geismar and for our wider polyurethanes business as a whole.”

**Greater flexibility to provide downstream, customized products**

In Europe, Huntsman is commissioning a new state-of-the-art MDI splitter and downstream specialties manufacturing unit at its Rotterdam facility in the Netherlands, which will enable Huntsman to serve customers with a full range of next-generation, differentiated polyurethane products for automotive, adhesives, coatings and other applications. The unit is designed to handle globally sourced MDI precursor.

In a further endorsement of its work, the team at Rotterdam has also received funding from the Dutch government for a pilot program exploring the greening of the MDI production process.

With financial support from Dutch officials, the corporation is constructing a testing plant on site that is 1:1000 of the size of a standard MDI facility. The unit will be used to scale up techniques already proven in Huntsman’s laboratories and demonstrate that significant energy savings and CO2 reductions can be achieved at a full plant level by intensifying the MDI manufacturing process.

In exchange for funding, Huntsman will share generic learnings from the scale up process with other companies that are interested in making process improvements. The results are expected to be transformative with the potential to save up to 1500 TJ of energy annually and reduce CO2 emissions by more than 75,000 tes.

Tony Hankins said: “Investing in our MDI splitting capability gives us greater flexibility to provide downstream, customized products; and proactively pioneering process improvements in partnership with the Dutch government, will keep us at the forefront of developments in the European polyurethanes industry for many years to come. These investments reinforce and acknowledge the quality of people and assets we have on site – and their combined future potential.”

In addition to its Geismar and Rotterdam sites, Huntsman operates a third world scale MDI facility in Caojing, Shanghai. I

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Building underway on Huntsman’s first TPU production line in Asia

Huntsman is building a new thermoplastic polyurethanes (TPU) production facility at the Jinshan Fine Chemical Industrial Park in Shanghai.

Once complete, the factory – Huntsman’s first dedicated TPU plant in Asia Pacific – will produce thousands of tonnes of product per annum, supporting rapidly growing demand in the region and enabling the company to better serve its local customers.

The new facility will manufacture TPU for a variety of industrial and consumer applications including shoes, cables, seals, hoses, films and conveyor belts.

The project has obtained full support from both the Jinshan Fine Chemical Industrial Park and the Jinshan district government.

Jan Verstraeten, Global Business Director of Huntsman’s TPU business, said: “In creating this plant we have laid the foundations for expansion in the biggest and fastest growing TPU market in the world – a move that will enhance our global and regional partnerships, and help us meet the distinct needs of customers across Asia Pacific. As the build progresses we are gathering global resources and recruiting new team members to support the venture. We are also inputting the very latest technology to ensure that we can develop products that will contribute to the key sectors defined in China’s twelfth five-year plan. This is an exciting development for China, for our business in Asia and for the global TPU market as a whole.”

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Huntsman acquires stake in Japanese SPF company

Huntsman has acquired a 20% stake in Nippon Aqua Co. Ltd. (Nippon Aqua), a spray polyurethane foam (SPF) insulation company based in Yokohama, Japan – and has entered into a ten-year supply agreement with the business.

Nippon Aqua is the SPF market leader in Japan. It has business operations in over 30 locations across the country and is a subsidiary of leading residential homebuilder Hinokiya Holdings Co. Ltd. Huntsman supplies various advanced MDI-based polyurethanes systems to Nippon Aqua.

Tony Hankins, President of Huntsman Polyurethanes, said: “We are delighted to have the opportunity to invest in Nippon Aqua, a pioneer in the Japanese spray polyurethane foam market. Following the regrettable accident at the Fukushima Daiichi nuclear plant in 2011, there’s a great focus on how the country will source its energy needs and a growing demand among consumers for more effective insulation. Nippon Aqua is well-positioned to satisfy this demand and we look forward to strengthening our relationship with them.”

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Huntsman promotes RUBITHERM® insulation in Brazil and announces new technical center

Last November, associates from Huntsman represented the company at the FEIPLAR COMPOSITES & FEIPUR International Fair and Congress Composites, Polyurethane and Engineering Plastics in São Paulo, Brazil.

The Huntsman booth featured a variety of products including the polyurethanes-based RUBITHERM® range, which provides excellent thermal insulation properties contributing to greater energy efficiency. The polyurethanes division also participated in a lecture about polyurea coatings and their practical application in Brazil.

In addition, the business unveiled details of its new Huntsman Advanced Technical Center (HATC) in Taboão da Serra/SP, Brazil. Scheduled for inauguration later this year, the center will provide significant advances in the development of products aimed at the South American market. The research labs will be shared among four Huntsman divisions: Advanced Materials, Performance Products, Polyurethanes and Textile Effects.

Placing operations and manufacturing closer to its clients, the HATC will enable Huntsman to offer the latest infrastructure tools and technological support to aid innovation.

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It’s been more than a year since Huntsman acquired Turkish systems house EMA Kimya Sanayi ve Tecaret A.S. PU Review travelled to Tuzla, south east of Istanbul, to speak to Mrs. Gulum Kabil, General Manager of Huntsman-EMA. Separately we also interviewed Niki Revesz, a commercial director at Huntsman Polyurethanes. Together their responses paint a picture of the local polyurethanes market and what the future holds now the business has a greater foothold in the region.

**PU Review (PU R):** How long has Huntsman been operating in Turkey and how did it come to acquire EMA?

**Niki Revesz (NR):** Huntsman has always played an active role in the Turkish chemical industry making investments in production and sales capabilities as well as distributor and systems house relationships across its different business divisions.

At the end of 2011, the polyurethanes division of Huntsman bought EMA – a strategic move designed to increase the company’s capabilities in markets where economic growth favors polyurethane consumption. The business had been looking for acquisition opportunities in Turkey for some time and EMA – established in 2006 – was a good fit from both a technical and a cultural perspective.

**PU Review (PU R):** Tell us about the market for polyurethanes in Turkey?

**Gulum Kabil (GK):** There are extremely strong market drivers for the polyurethanes industry in Turkey and the surrounding regions. When EMA was first established, the Turkish economy was about average for a developing country. It had a B1 investment rating and a gross national product (GNP) value of $350 billion (USD). Over the last few years that figure has doubled and the country has secured a better investment rating. This is remarkable considering the economic problems elsewhere in Europe and the political unrest experienced in some parts of the Middle East.

Hand in hand with rapid and sustained economic growth, we’ve seen manufacturing exports rise. In parallel, demand has increased for housing, appliances, cars and other consumer items. Polyurethanes have a
crucial role to play in all of these areas and that’s reflected in industry figures. In 2010 Turkey’s MDI systems market grew at a rate of 13-15% per annum – one of the highest rates in the world.

**PU R:** Why do you think the country has fared so well?

**GK:** There are a number of factors. One of the main reasons is demography. The population growth rate in Turkey in 2011 was estimated at 1.3% and the population is very young. The average age is only 30.

Geography is also important. The country is uniquely positioned to bridge the gap between Europe and the Middle East – and does so with great success. Most Turkish companies are small and entrepreneurial. They export to many different regions – meaning risk is spread and that there is no major fallout at times of financial or political uncertainty. The production of intermediary products is also high in Turkey. This makes it easier to find other export markets when there is a downturn and avoids competition with Asia.

**PU R:** So what are the key markets for polyurethanes in Turkey?

**GK:** The markets are numerous and varied – from insulation to make buildings more energy efficient to foams and lightweight composite materials that increase comfort in cars and cut fuel consumption.

Huntsman-EMA sells more than 15,000 tes of polyurethane raw materials per year and we’ve also established our own polyester polyl technology. Insulation is by far our biggest market. The highest volumes are in technical insulation, followed by metal panel production, discontinuous spray systems and then one component foams (OCF) for draught proofing.

By size, footwear follows next. Specialist applications such as the production of wellington boots are extremely popular. The automotive market is also important. Admittedly the industry has been under pressure of late but with new models from Ford, Renault, Hyundai and Toyota coming through, things are looking up and there are countless interior and exterior applications for elastomer technologies.

In addition, we expect further growth in furniture. Turkey has a significant composite wood product market. Also, the use of polyurea is expected to grow at double the GNP rate – close to 10% per annum up until 2015.

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PU R: So is the expansion of the Turkish MDI market sustainable?

GK: It certainly appears to be. Projections of gross domestic product (GDP) per capita in Turkey show that the nation’s overall growth trend will continue for the next three years. While the numbers look moderate compared to the rest of Europe, the impact in sectors in Turkey that use polyurethanes will be intense because of the location of the country’s industrial zones. These areas are located around big cities such as Istanbul, Izmir and Gaziantep and create 65% of the country’s GDP. Application wise, we expect growth in automotive and footwear to be in line with GDP while insulation, adhesives, coatings, elastomer and foam markets look set to grow at double the rate.

PU R: So it’s obvious why EMA and Turkey was such an attractive proposition for Huntsman. Tell us what you think is so special about Huntsman-EMA one year on from the acquisition.

NR: Huntsman-EMA’s technological and dynamic structure, and the support it now receives as part of multinational company, is a powerful proposition that will help us grow our market share. We have a dedicated polyurethanes team in Turkey, state-of-the-art production facilities at our disposal and strong opportunities for technology transfer. These competitive differentiators put us in an ideal position to capitalize on the opportunities forecast to arise in Turkey and the surrounding regions over the coming years.

PU R: How does being part of a global organization compare to being a small independent systems house?

GK: The transition has actually been very smooth. EMA always had an exceptionally good relationship with Huntsman and culturally both companies were very close to one another anyway. Despite our size difference we were independently – and now united remain – 100% committed to maintaining the spirit of a small company. Customer intimacy is also paramount. This common ground helped considerably in the months immediately after the acquisition. Day to day not much else has changed. Obviously there has been more investment in the site and we have adopted lots of Huntsman practices. But overall, the integration has been easy and straightforward. Importantly, our customers, who we remain very close to, also welcomed the deal. At the end of 2012 we held an event to formally mark the creation of Huntsman-EMA and the feedback from customers who attended was extremely positive.

PU R: Does Huntsman have any other significant plans for the region?

NR: Nothing specific at present. Currently, Huntsman-EMA is our only polyurethane platform in the Turkish region. Locally, as a corporation, we are committed to offering our customers the highest levels of customer service and to working with them to meet the exciting challenges that will undoubtedly arise with the continued growth and evolution of the Turkish market. More generally we are thinking about opening more system houses in the style of Huntsman-EMA, building on those we already operate in Russia, Indonesia and India.

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Polyurea competes in 2016 Olympics

In 2012, Radial Química began renovating the tiered seating, entertainment and cinema areas of the Lagoon Complex in Rio de Janiero, Brazil, in preparation for the 2016 Summer Olympics.

The Lagoon Complex will be the site for all rowing events held during the Olympics. To prepare for the crowds and activities associated with the Games, the complex required a waterproofing system that would encompass audience seating areas, a covered grandstand and an upscale area for bars and restaurants.

After competing with six other companies, Radial Química was chosen to complete the project. Its partnership with a well-known consultant that is familiar with waterproofing in Rio de Janeiro was instrumental in the selection process.

After thoroughly researching the project’s scope and the facility’s needs, Radial Química recommended a polyurea coating based on Huntsman Polyurethanes’ technology. This solution provided clear cost, performance and agility advantages when compared with traditional systems that require the removal of coatings, settlement of foundations, waterproofing, mechanical protection and other reinforcements.

Application
Radial Química chose a polyurea hybrid with the ability to cure in 35 seconds. Application was specified at two millimeters thick with a textured finish. Phase one of application included coating six cinemas. Phase two took the project to the bar and restaurant areas located below the seating stands. For both phases a total of 5,300 square meters of material was applied. Respectively the jobs required 90 and 39 days to complete.

During installation there were a number of obstacles to overcome including the weather and the need to work outside of peak operating hours. Uniformity and optimal performance of the coatings also had to be ensured. To beat these challenges, Radial Química customized its team’s working hours. It also developed bespoke primers for the damp substrates and additives to improve coating performance in high humidity.

Surface preparation
Prior to application, Radial Química analyzed each of the surfaces to be coated to guarantee the highest-quality outcome. Preparation included washing and decontaminating, sanding, plastering with thixotropic polyurethane adhesive and treating structural expansion joints and cracks with a polyurethane primer bi-component. In phase two, the team applied an acrylic-based primer and then a primer of polyurethane bi-component with medium viscosity.

The future of polyurea in Brazil
Now complete, the Lagoon Complex application is under warranty for five years. However, with proper care and without vandalism, the work should last for more than ten to fifteen years.

While polyurea has been used for some time in flooring, soundproofing, metal component coating, shipbuilding and other applications, it is still a relatively new concept in Brazil for use in coatings. That is now changing. In addition to the Lagoon Complex, Radial Química has been selected to apply polyurea to the famous Maracana Stadium in Rio de Janeiro, Brazil, which will host the 2014 World Cup Finals. In this application, the polyurea will be applied to the stadium’s ramps and stands.

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Creating tough floors for tough tasks

Conventional floors typically lack the resistance to withstand long-term exposure to chemicals released during industrial and manufacturing processes, while heavy loads can create additional structural stress. These pressures can weaken floors in ways that impact on drainage, efficiency and hygiene.

Chemfloor, a Belgium-based company that specializes in flooring systems, turned to Huntsman Polyurethanes to help it take a new approach. Together, the two organizations have developed an innovative mortar system with a very high polymer content that forms a non-penetrable floor coating with superior resistance, durability and strength. The solution requires no primer, can be laid quickly and dries within one to two days, which minimizes operational downtime and disruption. With so many benefits, Chemfloor is already seeing keen interest from customers.

En route to safer food transport
Chemfloor has successfully installed its flooring system at wash facilities used to clean cargo containers, an industrial environment that can take a real battering from extreme wear and tear. Chemicals released during the wash process can put floors under the kind of strain that could raise the risk of contamination, especially when food is in transit. The mortar floor overcomes the technical challenges to maintain longevity.

Floors for foundries
In the manufacturing sector, Chemfloor customer Alucast is also benefitting from the new polymer flooring system. The company specializes in casting aluminum in its foundries at very high temperatures to create automotive parts, using oil and water combinations for lubrication. The foundry floors need to withstand exposure to solvents, heavy forklift trucks and high temperatures where hot oil and water drip from casting ovens at around 90°C to 120°C. In such a high-risk working environment, personal safety is paramount and floors need to be as slip-resistant and safe as possible for all staff working there. Chemfloor’s flooring system based on Huntsman’s isocyanate chemistry caters to that need.

Dirk Steenackers, Manager at Chemfloor said: “Working with Huntsman Polyurethanes we’ve created a highly effective flooring system that is proven, reliable and easy to install. It is highly effective and versatile enough to meet the needs of customers in many sectors. From food processing to manufacturing, the new system makes it much easier to maintain a hygienic working environment that complies with stringent health and safety requirements. We expect it to open up a range of new European markets and look forward to continuing our partnership with Huntsman Polyurethanes – whose technical support and commitment to working on projects is second to none.”
German company Footwear Concept & Design (FCD) and Huntsman Polyurethanes have joined forces to create a one-shot, single unit, shell shoe for cyclists from injection-molded TPU. The idea was to develop a unique concept to showcase the companies’ combined capabilities.

Having previously collaborated on the creation of TPU/polyurethane soled shoes for a number of world-leading footwear brands, the teams knew they could work well together so set about producing an entire shoe upper in one piece. The resulting mono hull offers many advantages during manufacture.

After the piece is demolded, no labor-intensive stitching is required to fix the sole to the upper, which saves assembly time. Furthermore, this novel approach could give footwear manufacturers the potential to create contemporary, ergonomically designed shoes that combine aesthetic form with functional benefits and new features. Shoes produced this way have no seams to cause discomfort; are easy to clean; are soft and comfortable yet rigid enough to provide good support; and are lightweight but durable.

Alfons Tremml, Commercial Manager for Footwear at Huntsman Polyurethanes, said: “This innovative TPU system offers footwear manufacturers a wide variety of application opportunities with a unique sales advantage. For example, the impact of sweating was mitigated in the cycling shoe by using a polyether TPU grade that made it more resistant to hydrolysis caused by humidity. Additionally, once the mold has been created, the one-shot injection molding process makes production versatile and cost effective.”

Successfully demonstrated in the creation of a cycling shoe, Huntsman Polyurethanes and FCD believe the same system could be transferred to other applications and shoe designs, such as:

- Safety clogs with added internal protection
- Lightweight, fast-drying, all-terrain hiking boots
- Stretchy strong overshoes for wet and dirty conditions
- Hydrophobic water shoes for the beach and water sports.

Jens Schmidt, General Manager at FCD, commented: “This was an extremely productive collaboration. What worked so well was the team’s flexibility, willingness to cooperate and commitment to see the project through to completion in an extremely short time frame. Huntsman Polyurethanes has been our preferred partner for TPU solutions for a while. This project reinforces that was a sound business decision. We’ve been overwhelmed by the reaction to the cycling shoe and look forward to working with our colleagues at Huntsman Polyurethanes and our customers to take the concept to market.”

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This innovative TPU system offers footwear manufacturers a wide variety of application opportunities with a unique sales advantage.
Winning industry awards is always exciting but when it’s an accolade judged by your peer group, success is all the more satisfying. That was the case for Huntsman Polyurethanes in October when the team received the Center for the Polyurethanes Industry’s (CPI) 2012 Polyurethane Innovation Award.

Awards success for Huntsman at CPI

Top innovation
This special accolade recognizes companies and individuals whose dedicated efforts bring innovative, new products, technologies and initiatives to market. Huntsman won the prestigious prize for its VITROX® composite resin system, which is revolutionizing the repair of underground waste water pipes. The award was presented at the opening session of the 2012 Polyurethanes Technical Conference in Atlanta.

CPI Senior Director, Lee Salamone, said: “CPI congratulates Huntsman on winning the 2012 Polyurethane Innovation Award. VITROX® composite resins offer a creative solution to the real-world challenges of infrastructure repairs and improvements.”

Keith Day, Vice President Global Business Development at Huntsman Polyurethanes, added: “There is no greater honor than to be recognized as an innovator by your own industry. We look forward to continuing to provide our customers with innovative products and solutions based on this novel chemistry.”

Top footwear presentation
During the CPI Technical Conference, Huntsman Polyurethanes also received an award for delivery of the best presentation in the Elastomers and Footwear Session – the second consecutive year that the company has been honored for its work in this category.

Rafael Camargo delivered the address, entitled “Renewable footwear systems based on polymers derived from waste carbon dioxide”, in conjunction with Novomer Inc. The presentation covered footwear foams using an entirely new class of CO₂-based polyols with potential sustainable characteristics. This novel platform technology enables polymer structures to be tailored for new specific applications. I eric_stebel@huntsman.com

Pictured left to right: Marc Broekaert, EAME Business Development, Coatings & Binders, Senior Expert, Huntsman; Steve Burns, Vice President, Americas Polyurethanes, Huntsman; Lee Salamone, CPI Senior Director.
IROGRAN® A85 P 5050 DP can be used to produce durable coated fabrics for inflatable boats, rafts, life preservers and safety jackets; general-purpose tarpaulin sheets; and membranes for flexi-tanks and conveyor belts.

Created from a special formula and manufactured via a unique production process, IROGRAN® A85 P 5050 was developed to increase the range of products available to specifiers in the textile lamination industry. The material has very good physical characteristics, combining abrasion and tensile strength with a wide processing window. It also offers excellent rheological and morphological properties.

Combined, these features can have a positive impact on production efficiencies, helping to stabilize processing, deliver a high output rate and reduce energy consumption – ultimately saving manufacturers time and money.

New TPU improves textile coating

Thermoplastic experts at Huntsman have developed a new polyether-based polyurethane with low melt properties that is easy to process and is suitable for coating textiles by calendering – a technique that gives fabric a smooth, glossy, hard-wearing finish.

New flame retardant prepolymer sparks interest

Historically it’s always been difficult for coatings formulators to add flame retardant properties to polyurea without compromising overall performance. The risk of overloading the polyetheramine or ‘B’ side of the system has always been too great.

But now – thanks to Huntsman Polyurethanes – that’s about to change. The company’s coatings experts have developed SUPRASEC® 2154 prepolymer – a new chemistry that makes it far easier to embed fire retardant properties in hot spray polyurea systems.

Used on the isocyanate or ‘A’ side of polyurea, SUPRASEC® 2154 prepolymer has built in flame retardant features. This means formulators can put extra fire protection additives into the amine half of a system more freely – helping them achieve the desired results, without creating an imbalance or impacting on other essential coating properties.

SUPRASEC® 2154 prepolymer is based on Huntsman’s proven SUPRASEC® 2054 prepolymer chemistry, which is known for delivering consistent, high quality results. The technology will be targeted at applications where passive fire prevention is required. For example in coating concrete and steel structures in multi-storey car parks.

The innovation was unveiled on the first day of the European Coatings Show in Nürnberg, Germany – where it sparked plenty of interest.

Ian Rimmer, Commercial Manager – Coatings EAME at Huntsman Polyurethanes, said: “We began talking about this product back in November at the Polyurea Development Association conference in Istanbul. The reaction was extremely positive so we knew we’d take the technology to ECS to discuss it with a wider audience. Development has been slow and steady but that’s been intentional. There is clearly strong demand in this area and from the outset we wanted to create a solution that was absolutely right and would deliver maximum benefit. We think we’ve done just that. Initial tests have gone well and we are now into the scale up phase – having some interesting conversations with existing customers about a wide range of application opportunities.”

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Global events round off busy year

Despite the rise of new communication channels, industry events are still hard to beat for face-to-face networking with customers, forging new contacts and demonstrating products. In the second half of 2012, teams from Huntsman Polyurethanes made their mark at key conferences, trade shows and exhibitions around the world.

IROGRAN® makes an impact

In Q3 / 4 2012 the division’s TPU experts visited Friedrichshafen in Germany for Fakuma; León in Mexico for ANPIC; and Turkey for Plast Eurasia. At each event the focus was on the team’s high performance, polyester-based IROGRAN® thermoplastic polyurethanes (TPUs) for injection molding applications.

Central to the range is IROGRAN® A70 E 4675, a soft, versatile, engineering material with outstanding bond strength. Easily processed and with an exceptionally short cycle time it is ideal for the manufacture of thick walled technical parts where short cycle and fast demolding times are required, for example cable bushings, plugs, wheels and castors. It is also widely employed across the automotive industry in the manufacture of over-molded items such as remote control car key fobs, sheets for dashboards, door and side panel cladding systems, and gear stick knobs.

Fast forward for footwear

At SIMAC, in Bologna, Italy the team formally launched DALTOPED® Lite, an innovative polyether material for polyurethane soles that featured in the last issue of PU Review. The new product generated a lot of interest. Also making the news was an innovative concept cycling shoe that was developed in collaboration with Footwear Concept Design, a member company within the Shoe Alliance. See page 11 to read more on this development.
CWP growth in Russia

Also in Q4, the Composite Wood Products (CWP) team visited Moscow for the Russian Lesdrevmash fair – the largest woodworking equipment event in the country. At the fair, the team attracted major players from the Russian wood-based panels industry to their booth. Focusing on Russia is an important part of Huntsman Polyurethanes’ CWP strategy. The benefits of MDI are just starting to be acknowledged by the regional wood panel sector and huge opportunities lie ahead with the local construction industry on the upswing and the creation of the country’s first OSB plant well underway.

TPU technology day in Germany

Late last year the Huntsman Polyurethanes thermoplastic polyurethane (TPU) team staged a special technology day with its long-standing German distribution partner, Chemie-Plast.

The event, held in the German town of Porta Westfalica, was open to professionals with a technical or commercial interest in thermoplastics. Topics on the agenda included TPU seals; formulations for automotive applications; advances in bio-based thermoplastics; polyamide and polyester developments; plus general advice regarding error prevention and trouble shooting in production.

More than 100 visitors attended, mainly from plastics processing companies. Delegates heard presentations about the issues and trends affecting the industry, details of emerging markets and the increasing importance of TPU solutions in increasing efficiency across manufacturing.

Kirsten Müller-Mohme, Managing Director at Chemie-Plast, said: “Hosting technology days gives us an opportunity to discuss ideas and explore new developments in conjunction with our partners and customers. Our first technical event took place back in 2000. Since then we’ve hosted many others at regular intervals and our customers always comment on how much they learn. Thanks to the team at Huntsman Polyurethanes for helping us arrange such an educational, event.”

Other organizations involved in the technology day included CTS (Compound Technology Services); SO.F.TER SPA; and the University of Osnabrück together with Brabender Messtechnik.

For more information on the subjects covered in PU Review magazine, please contact the editor: Ilse Vanden Brande, ilse_vanden_brande@huntsman.com, +32 (0) 2 7589420

India welcomes VYDRO®

In Q4 the destination was Hyderabad for the 10th Indian Green Building Congress – the largest show of its kind in India. Over three days more than 800 individuals visited the VYDRO® substrate booth, helping to generate at least 80 sales leads.

The popularity of a technical session on VYDRO® substrate reflected growing demand for green roofs across India. Huntsman Polyurethanes’ Fabio Invernizzi explained to an international audience of architects and builders how VYDRO® substrate works and the benefits it is delivering in customer applications across Europe and Asia. The session attracted so many delegates that a moderator was needed to help chair a dedicated Q&A session.

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List of forthcoming events and technical presentations

List of forthcoming events:

- PU China, Nanjing, China (September 10-12)
- Polyurethanes Technical Conference, Phoenix, Arizona, USA (September 23-25)
- Timber Expo 2013, Coventry, UK (September 24-25)
- World Energy Engineering Congress, Washington, D.C., USA (September 25-27)
- K2013, Dusseldorf, Germany (October 16-23)
- Western Coatings Show, Las Vegas, NV, USA (October 20-23)
- Khimia, Moscow, Russia (October 28-31)
- APA Annual Meeting and EWTA Info Fair, Huntington Beach, California, USA (November 2-5)
- Woodex Moscow, Moscow, Russia (November 26-29)
We create better energy efficiency and comfort. Together.

At Huntsman Polyurethanes, we believe that working in true collaboration with customers is the only way to solve complex problems and find the solutions that will deliver real innovation. So, we strive with a passion and determination to build the deep understanding of our customers that’s required to get to the heart of their needs and establish lasting partnerships.

Our MDI-based polyurethanes and TPU technologies are used to meet the exacting needs of the major automotive OEMs, providing superior seating comfort and durability, advanced acoustic absorption and high performance components, which optimize weight and enhance safety. Combine our knowledge of polyurethanes systems with your expertise, and we’ll create better cars… together.