

FREEFLOW

THE DYNAMICS OF A GLOBAL ACRYLICS BUSINESS

No.14

WELCOME TO THE APRIL 2014 EDITION OF FREEFLOW



Peter Snodgrass
Sales Director, Europe

Spring always feels like a great time to issue our first newsletter of the year. It's a time when the natural world starts its cycle of growth and renewal, and sets us off on a path re-energised with ideas and plans to approach all that we do with extra determination to go further and make a difference.

Here at Lucite International (LI), there is a lot for us to be very pleased about for 2014! First, Malcolm Kidd, our Business Director for Methacrylate Monomers in EAME, shares some positive commentary about the markets on pages 04-05. We hope that the Life Cycle Assessment (LCA) for MMA, which is now available (see pages 10-11), will be useful for those looking to use MMA and its derivatives to produce high performing products with good sustainability credentials.

We are also delighted to announce some exciting changes to the relationship we have built over the past 20 years with our distributor in Turkey, Ak-tas. Extending our agreement with them and having a dedicated local person on the ground to serve customers in Turkey and its surrounding territories will help us to more closely align ourselves with their needs as they forge ahead in this dynamic and growing region.

In this issue of FreeFlow we also celebrate ongoing partnerships with our customers Synthomer and Polycasa, and are delighted to share news of some of their interesting products and the solutions they bring to everyday lives.

We've also been doing some work on what we believe are the key things that our customers desire from us as a supply partner. This has resulted in a set of six areas of focus for us as we continue to support your businesses (see page 16). I would be pleased to hear your thoughts about these and, indeed any other issues you read about in this edition of FreeFlow.

Finally, I'd like to thank all of our customers for their ongoing support. We truly value these special relationships and look forward to discussing even more opportunities to work together in the future.



EXPANDING OPPORTUNITIES IN TURKEY

We are delighted to announce a deepening working relationship with our distributor partner in Turkey, Ak-tas. With its growing economy and increasing dynamism in sectors where methacrylates can offer value-adding solutions, Turkey and its adjoining territories represent some interesting opportunities for all of us operating in this exciting area. Read more on page 14.



FOOD PACKAGING PRINTING INKS

In the absence of harmonised legislation covering printing inks for food packaging, businesses are looking to Swiss Ordinance as the recognised global standard to work to. On 1 April 2010, Switzerland introduced a list of all substances that are permitted for use in inks for printing on food packaging via its Ordinance for Printing Inks SR 817.023.21 legislation. Permitted Substances are defined as those listed in the Ordinance's Annex 1 (Lists I and II) and in Annex 6, which can be found at: <http://goo.gl/9nqftV>. The lists include both evaluated and non-evaluated substances; non-evaluated substances are only permitted if they do not migrate to food at a level of 0.01mg/kg or above. Any use of unlisted substances must be reported to Swiss Authorities prior to them appearing in the marketplace.

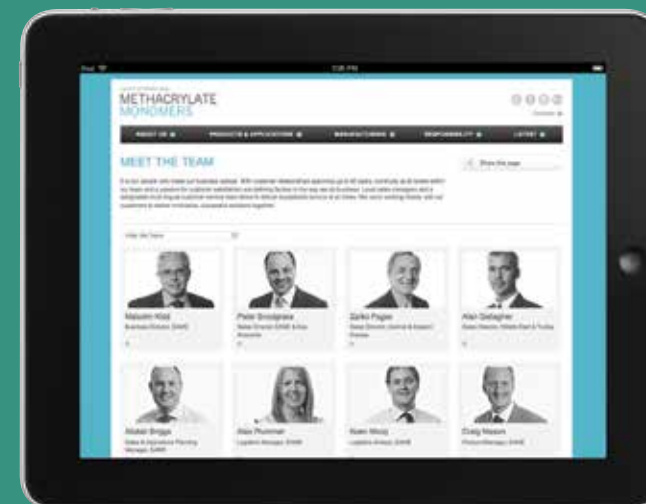
Lucite International is happy to provide statements for any of its intermediary products that may be used for inks for food packaging. Our statements will confirm Ordinance status for relevant substances alongside specific migration limits. However, it is important to note that compliance with migration limits can only be demonstrated by tests carried out on the final article. For FAQs linked to safer printing inks for use in the food packaging industry, please see: <http://goo.gl/lwcPmv>

PERSPEX® JOURNEY AT EUROSHOP 2014

Once again, Perspex® exhibited at EuroShop in Düsseldorf, 16-20 February. This year, our Perspex® team invited visitors to make a journey of discovery to explore 'the seven wonders of the Perspex® world' on the stand. The striking stand design used Perspex® numbers to highlight different zones as part of an interactive journey. Beginning at Zone 1 with carefully crafted samples of crystal clear Perspex® to illustrate what the brand can offer even in its simplest form, the journey concluded in Zone 7 with the all-new Perspex® website, www.perspex.com, which visitors were able to explore using an interactive touch screen. Perspex® Spectrum LED and Perspex® Impressions Linear, both specially developed for the retail sector, attracted lots of interest from visitors, who were also wowed by the Frost, Fluorescent and Vario ranges that are perfect for POP/POS and retail interiors. For EuroShop 2014, the team focused on creating a stand that not only attracted attention, but also left visitors with a lasting impression of the potential Perspex® offers. The wide variety of Perspex® products and exhibits on the stand demonstrated the versatility of the brand in all aspects of visual communication and retail interior design. Visit the new website: www.perspex.com



ONLINE WORKING WONDERS!



It is now 12 months since we launched the EAME Methacrylate Monomers website. We are delighted with the amount of new visitors we've attracted and with all of the positive feedback we've had. You might be interested to know that our 'Meet the Team' page has proved to be the most popular area of the site, which is great news. It means people are getting in touch and talking to us, which was one our main aims for the new site. Our regular blog shares news about our business and what's going on at Cassel site and our followers continue to grow. If you have not visited it before, take a look at: <http://blog.methacrylate-monomers.com>. Also a quick reminder that all previous editions of FreeFlow are available on the site for you to refer back to or share with your contacts. We are always looking to build customer case studies and share industry issues and news, so please get in touch if you would like your business to feature or you have any ideas you'd like us to explore, email: lyn.hatch@lucite.com

TAKING A CLOSER LOOK AT THE MARKETS



THE METHACRYLATE MONOMERS TEAM, WHICH SERVES THE EAME REGION, IS PASSIONATE ABOUT DELIVERING ADDED VALUE TO ITS CUSTOMERS AND INDUSTRY PARTNERS IN THE MERCHANT MARKET. TO BE EFFECTIVE IN WHAT WE DO REQUIRES US TO CONTINUALLY INVEST TIME AND ENERGY INTO UNDERSTANDING THE MARKETPLACE AND ITS DYNAMICS. OUR LOCAL REPRESENTATIVES IN THE FIELD TOGETHER WITH OUR WORLD-CLASS BUSINESS SYSTEMS MEAN WE HAVE THE BEST POSSIBLE ACCESS TO RELIABLE INFORMATION TO DO JUST THAT. AS PART OF OUR REGULAR REVIEW, PUBLISHED BOTH ONLINE AT WWW.LUCITEINTERNATIONAL.COM/MONOMERS/EAME AND HERE IN FREEFLOW, WE SHARE WITH YOU THE VIEWS OF MALCOLM KIDD, COMMERCIAL DIRECTOR FOR METHACRYLATE MONOMERS IN EUROPE, MIDDLE EAST AND AFRICA (EAME).



“THE USE OF MMA AND ITS DERIVATIVES CONTINUES TO BE OF INTEREST PARTICULARLY WHERE CUSTOMERS ARE SEEKING TO PRODUCE A HIGH PERFORMANCE PRODUCT WITH GOOD SUSTAINABILITY CREDENTIALS.”

Image: Malcolm Kidd is LI's Business Director for Methacrylate Monomers in the EAME region.

DOWNSTREAM MMA USE IN A MATURE MARKET

23%	Acrylic sheet for glazing, fabrication, signs, lighting and sanitary ware.
32%	Automotive, medical, optical, point of sale, light transmission, sound barriers.
25%	Surface coatings, acrylic latex, lacquers and enamels.
12%	Glass interleavants, coatings and medical.
7%	Impact modifiers and processing aids for rigid PVC window and other profiles.
1%	Composite sinks, solid surface.

EAME demand pattern becomes clearer

Overall, market demand across the region continues to move forward, building on what proved to be a decent year in 2013. However, there is quite a spread of market conditions within the EAME region. The economy in many Middle East countries continues to forge ahead with high levels of construction requiring methacrylate-based products. Turkey and South Africa are performing steadily despite the recent challenges to their currencies, and the UK and northern Europe in general are showing a slower but continuous upward trajectory, as a number of countries appear to be putting themselves on a firmer footing. Unfortunately, southern Europe continues to exhibit a high degree of inertia preventing it from regaining previous demand levels.

New business opportunities

The importance of flat screen applications to the MMA / pMMA industry is well known and remains a significant segment for demand, albeit with growth more aligned to GDP. As manufacturers everywhere are seeking ways in which to improve upon lower GDP-based growth, and to differentiate themselves with their product lines, methacrylates and methacrylate-based derivatives and formulations are benefiting. The compatibility of pMMA material with LED lighting is a good example of where there is a huge potential. The use of MMA and MAA in the growing segment of industrial adhesives

is another excellent demonstration of the inherent product qualities being used to meet the demands of today's industry and society. The waterborne revolution in coatings may already have happened to a large extent in Europe, however, there are opportunities to penetrate further with many parts of the EAME region (and further afield) yet to experience the impact of similar VOC legislation and the solutions that methacrylates can bring. The high cost of styrene is causing some resins manufacturers to re-think formulations given the superior performance of methacrylate-based systems. Manufacturers are also looking to methacrylates as possible alternatives to products that are under pressure from lobby groups, such as Bisphenol A in food contact applications. These are just a few examples that illustrate the widespread use of Methacrylates because of their inherent high-performance properties and it is these characteristics that are making them resilient in the current climate.

Lucite International (LI) capability

Since the last issue of FreeFlow, LI has commissioned the new synthetic HCN / ACH production assets in Beaumont, Texas, USA, which will allow increased MMA production capability at the site. Later this year, LI will increase the capacity of its asset at Caojing, near Shanghai, China. 2014 also sees a major investment programme for LI's MMA asset in EAME and other LI

assets worldwide; a demonstration of LI's commitment to all of its capacity and desire to maintain the continuity of supply to our customers.

Cost base

Raw materials prices continue to provide a challenge and MMA manufacturers are currently operating at margins well below industry norms. As a consequence, we have seen some rationalisation and mothballing of assets over the last year. There will be relatively little investment in new methacrylates capacity in the next couple of years, and occupancy levels will increase as demand continues to improve. In the meantime, MRC is progressing with its methacrylates investment programme and the project to deliver the second Alpha technology plant in Saudi Arabia remains on-track.

Outlook

The use of MMA and its derivatives continues to be of interest particularly where customers are seeking to produce a high performance product with good sustainability credentials. Looking ahead, the forecast is that demand will continue to grow in the EAME region through 2014, perhaps at a slower rate than in recent times in some of the more traditional segments, but with a number of higher growth markets and some exciting new application areas opening-up.

ADVANCING PERFORMANCE WITH SYNTHOMER



Images: [1-2] Synthomer's binders made with MMA have many uses, for example, in technical textiles used for textile blinds and awnings. [3] Synthomer's products are used as binders in wood coatings. Specifically with exterior wood coatings, MMA is the preferred monomer due to its better stability against UV light and ability to provide increased hardness to final products.

WHILE THE SYNTHOMER BRAND WAS FOUNDED IN 1963 IN FRANKFURT, GERMANY, THE COMPANY'S ORIGINS DATE BACK TO 1952 TO A PRODUCTION SITE IN HARLOW, NORTHEAST OF LONDON IN THE UK. TODAY SYNTHOMER IS ONE OF THE WORLD'S MAJOR SUPPLIERS OF LATICES AND SPECIALITY EMULSION POLYMERS THAT ARE USED IN A GROWING RANGE OF MARKET SEGMENTS AND APPLICATIONS INCLUDING: COATINGS, CONSTRUCTION, TEXTILES, PAPER AND SYNTHETIC LATEX GLOVES. FREEFLOW HEARS FROM DAVID PARRY, PURCHASING DIRECTOR AT SYNTHOMER.

FF: To set the scene for us, what would your 'elevator pitch' say about Synthomer?

DP: Our headquarters are in Harlow, UK and provides customer focused services from operational centres in Marl, Germany and Kuala Lumpur, Malaysia, which work in close cooperation with further area sites in Italy, Dubai, Dammam and South Africa. Synthomer develops and markets a broad portfolio of aqueous acrylic, styrene acrylics, styrene butadiene and vinyl acetate based polymer dispersions used in a wide range of industries to create and enhance everyday consumer products. Whether you're reading a book, opening a pack of breakfast cereal, painting your kitchen, labelling an envelope, laying a carpet, tiling a bathroom or simply driving the car, you could be using a product that has been improved by our scientists.

FF: How long have you been working with Lucite International (LI) and what products do you buy?

DP: The answer to the first question is 'a very long time!' We buy both MMA and MAA, which is delivered to our various production locations across EAME.



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FF: Can you tell us what these products are used for at Synthomer?

DP: MMA and MAA are the raw materials we use in Synthomer's pure acrylic products typically used in acrylic decorative paints, wood coatings, and for the manufacture of woven and non-woven technical textiles.

FF: You've worked with LI for many years. What makes the relationship work so well?

DP: Product quality and reliable deliveries have to be a 'given' in today's world. We need our key partner suppliers to go beyond that to encompass global market coverage at competitive pricing wherever we operate. We also need excellent communications, a willingness to work closely to benchmark and improve key business processes, and to help us respond to the requirements of our customers so that we can further grow the sustainability of our business. LI has delivered consistently on these things and, above all else, is easy to do business with.

FF: Looking ahead, how do you see the future for polymers?

DP: Megatrends associated with the push for more sustainable products, for example: striving for less VOC (Volatile Organic Compounds); reducing formaldehyde levels; and moving away from solvent based systems, have had a real impact on the technological design of materials. There continues to be a driver for our water based dispersions in the market, especially as regulatory standards become more stringent in both emerging markets and the rest of the world. In addition, there's a move to use more raw materials that build on renewable sources, like bio-polymers. We are currently launching our first products to the coated paper market based on SBR/bio-polymer hybrids using a new technology platform and we will continue to expand the platform to further areas of our portfolio.

FF: Can you tell us about how important innovation is at Synthomer?

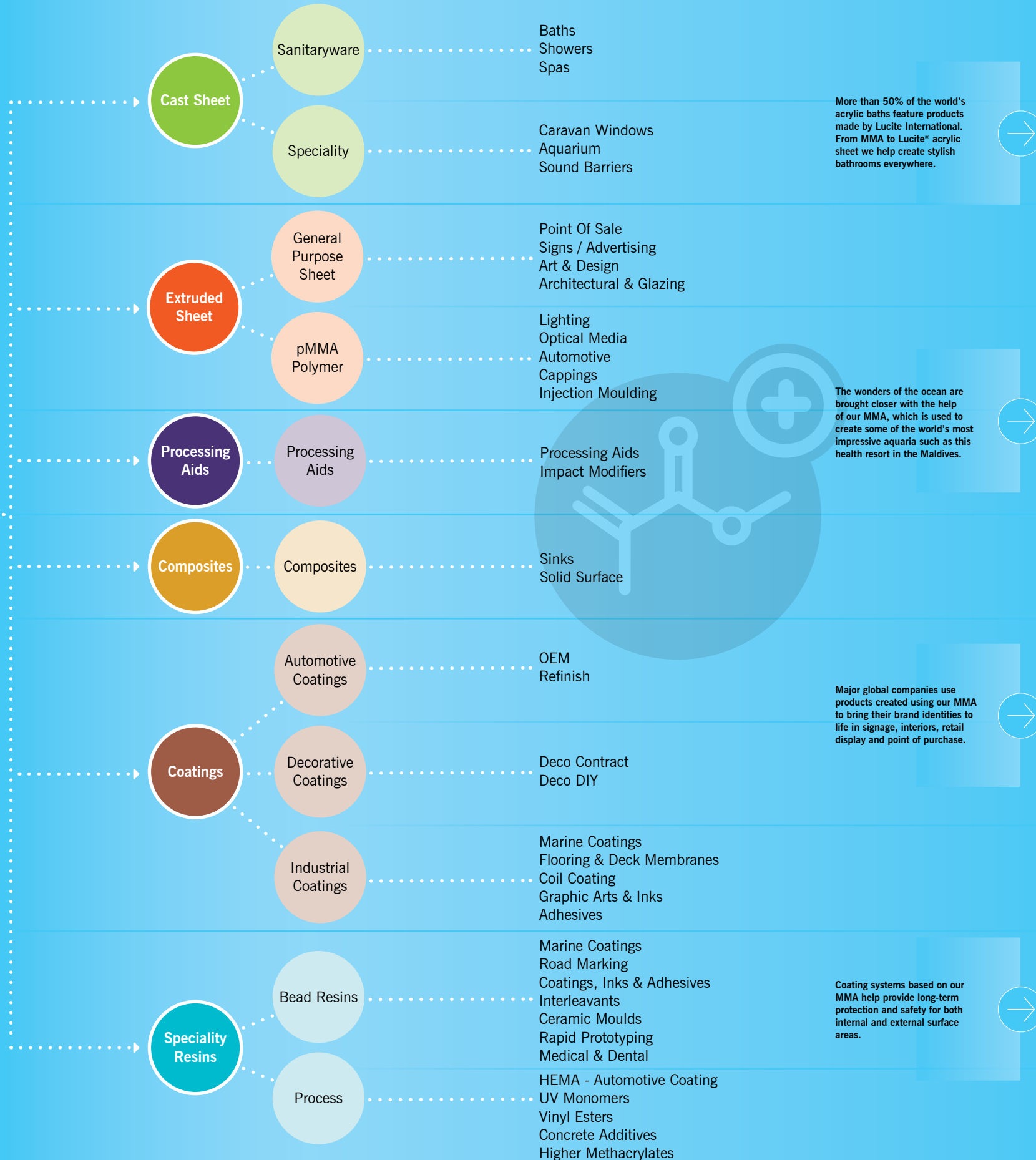
DP: Synthomer has a market-focused approach to innovation. We believe it is essential in providing our customer with

solutions that add value to their formulations and products. Based on major trends, we assess the emerging needs of our customers and funnel this into our commercially driven product innovation programme. Our R&D, applications development, and commercial teams are co-located at our three state of the art technical centres in the UK, Germany and Malaysia, where teams can rapidly develop new products in close collaboration with our broad customer base. A team at our UK technical centre is dedicated to Sustainable Innovation. Its focus is on emerging applications and technologies, with a strong emphasis on sustainability trends, eg., bio-polymers, energy reduction and the challenges of urbanisation, to drive new innovative product offerings. Synthomer also partners with a number of academic institutions to carry out research and to generate new intellectual property.

ACRYLIC LIVES



AS ONE OF THE WORLD'S MOST VERSATILE MATERIAL INGREDIENTS, MMA HAS BEEN HELPING TO TRANSFORM PEOPLE'S LIVES FOR DECADES. FROM SANITARY WARE TO SOUND BARRIERS, PROTECTIVE COATINGS TO ADHESIVES AND OPTICAL MEDIA TO ORTHODONTICS, OUR MMA DELIVERS A TAILOR MADE BALANCE OF PERFORMANCE AND AESTHETICS ACCORDING TO THE EACH INDIVIDUAL CHALLENGE. HERE WE TAKE A LOOK AT SOME OF THE SOLUTION ROUTES OUR METHACRYLATE MONOMERS HAVE ESTABLISHED AND ASK WHAT NEW JOURNEYS COULD IT TAKE IN THE FUTURE?



More than 50% of the world's acrylic baths feature products made by Lucite International. From MMA to Lucite® acrylic sheet we help create stylish bathrooms everywhere.



The wonders of the ocean are brought closer with the help of our MMA, which is used to create some of the world's most impressive aquaria such as this health resort in the Maldives.



Major global companies use products created using our MMA to bring their brand identities to life in signage, interiors, retail display and point of purchase.



Coating systems based on our MMA help provide long-term protection and safety for both internal and external surface areas.



POLYCASA

HOME OF PLASTICS



Images: Spanish architects, Arquitectura Blanca, used over 16 tonnes of Polycasa cast acrylic in the construction of a 2km sound barrier wall along Gran Via de les Corts Catalanes in Barcelona. Areas of cast sheets in 12 different colours were inserted along the full length of the barrier wall producing a rainbow effect along the route. The material was supplied by Polycasa's customer, Comercial Arteplástica. The project was developed in two phases, the first in 2006 and the second in 2011. The cast acrylic sheets were manufactured by Polycasa in Barcelona using MMA supplied by Lucite International.



POLYCASA IS ONE OF THE LARGEST INDEPENDENT PRODUCERS OF PLASTIC SHEET PRODUCTS IN EUROPE. IT'S A BUSINESS WITH A VISION TO PROVIDE ITS CUSTOMERS WITH GUARANTEED SUPPLY, QUALITY AND INNOVATION, WHICH IT DOES WITH THE SUPPORT OF STRONG RELATIONSHIPS SUCH AS THE ONE IT HAS BUILT OVER MANY YEARS WITH LUCITE INTERNATIONAL (LI).

FF: You have refreshed your company name and brand. What was the thinking behind this exercise?

PC: We are extremely proud to have re-launched what was Quinn Plastics as Polycasa last autumn. We wanted a brand name to better describe who we are, what we do, and how we want to be recognised. The name 'Polycasa' translates as 'the home of plastics', which we felt was a good fit. As part of the re-launch, we redefined our key values as quality, innovation and loyalty. These values underpin all we do at Polycasa and mean that we will continue to provide our customers with industry-leading quality and service that is responsive, flexible and in which they can have total confidence. We have also reinstated our product innovation organisation and our customers can expect some exciting announcements during the course of 2014!

FF: Over 50% of Polycasa's 2013 sheet sales were based on pMMA. Can you tell us about this?

PC: We are extremely proud to be Europe's largest independent supplier of plastic sheet and with the support of key suppliers, such as LI, we are able to offer our customers the best solution for any challenge. While we supply one of the most comprehensive ranges of plastic sheet products, pMMA remains the most important polymer for our business. We have an independent market-leading European position in the extruded acrylic sheet sector based on our well-established production sites in Mainz, Germany, and Zilina, Slovakia, which supply high quality pMMA sheets to customers across Europe. Polycasa's leading position in extruded acrylic is supported by our well established position in the cast acrylic sheet, which we manufacture in Barcelona. pMMA remains at

the core of the Polycasa business - it is what has helped us to build our leading position and reflects the confidence that customers across Europe have in the material to fulfil their requirements.

FF: Why do you choose to work with LI and how do you think we go further?

PC: Polycasa customers quite rightly demand the highest standards of quality and service. LI has established a global reputation for the quality of its MMA product, and the reliability of its manufacturing and supply chain organisations. Our two companies are ideally matched to provide our customers and end users with the assurance that the products and service will always be amongst the best in the industry. LI's excellent logistics systems support reliable MMA deliveries to our plants across Europe. However, there is no room for complacency! Partners are

constantly looking for improved performance, lower costs, and added value products that can develop sales for new applications in new markets. We are therefore heavily reliant on LI's world-class manufacturing and research facilities to find new, more cost efficient ways of producing top quality MMA, while Polycasa generates a broad range of additives and formulations that deliver new product features and benefits. This will be an area where we are looking to work even more closely with LI than ever before, to build our competitive advantage and delight our customers!

FF: How do you think our two companies work together to provide added value for each other as well as for customers?

PC: LI has worked with Polycasa to optimise our supply chains and provide best value for both companies for many years. Three of our sites use MMA and make either cast sheet or pMMA for extruded sheet. Optimisation of the supply chain has delivered an almost seamless supply into our Barcelona facility. The LI logistics team and their local representative, Quimidroga, provide a quick service with a genuinely local feel by delivering product from their local bulk storage in Tarragona. Transporting MMA safely and reliably requires experience, knowledge and technical skills, especially the management of inhibitor in the hot months. LI and Quimidroga have established

a team to manage the safe handling and supply into Polycasa, allowing us to focus on production. LI also delivers to Polycasa's sites in mainland Europe via tailored supply chains achieved through the partnership with LI's haulier. Mainz is our largest consumer of MMA and the flow to the plant is critical. Precise planning has enabled us to optimise the schedules. Regular reviews between the regional teams of both Polycasa and LI allowed us to optimise the service to our customers.

FF: How does Polycasa see the future of acrylic developing?

Polycasa is one of the leading European suppliers of transparent plastic sheet to the retail, construction and industrial markets and extruded and cell cast acrylic sheet are core to our ranges. Acrylic sheets have a number of key advantages for downstream industries in terms of product performance; optical clarity, easy fabrication, environmental sustainability etc. These advantages will support the growth of acrylic in these downstream industries. Given the ongoing pressure on budgets across all end user markets and the increased intensity of inter-material competition the key objective for all of us in the acrylic chain is to ensure that the final product is cost competitive while maintaining the established high performance criteria.

FF: How does Polycasa view innovation?

Innovation is one of our three main values and it underpins all our activities at Polycasa. In recent years its priority has fallen off, however, with the re-launch of our company as Polycasa we have rapidly addressed this and have several exciting projects in the pipeline. We know our customers need us to innovate; not only with new products but also with business processes, supply chain systems, IT and technology, and in the way we train and develop our people and these are all part of our new focus.

FF: What about sustainability?

Sustainability is a huge priority for us, and we are working in several key areas to reduce energy and material consumption, lower emissions and waste, and eliminate unnecessary vehicle movements. For example, we are engaged in a programme working with key customers to ensure the maximum possible number of trips that can be taken by every pallet through a return and repair service. This is proving extremely popular with many distributors and end users, and is providing significant savings for all. We are also proud of our new 'hub' distribution structure, which has reduced vehicle movements and costs by over 15% in 2013 – not only a massive saving, but also a huge reduction in carbon emissions!

MMA LIFE CYCLE ASSESSMENT

AS COMPANIES FOCUS INCREASINGLY ON SUSTAINABILITY PRINCIPLES, BEING ABLE TO DEMONSTRATE PROGRESS IN REDUCING THEIR IMPACT ON THE ENVIRONMENT BECOMES EVER MORE IMPORTANT. NOW THE EUROPEAN METHACRYLATES INDUSTRY HAS PRODUCED ITS FIRST EVER COMBINED LCA FOR ACH MMA, WHICH INCLUDES AN ENVIRONMENTAL PRODUCT DECLARATION. GENERATED USING STATE OF THE ART METHODOLOGY, THE BENEFITS OF THIS BRAND NEW LCA TO US, AS PRODUCERS, AND TO OUR CUSTOMERS, AS USERS, ARE FAR REACHING. LUCITE INTERNATIONAL'S (LI) GLOBAL SUSTAINABILITY MANAGER, ANDY BRAGG CONSIDERS THE IMPORTANCE OF THIS HUGE STEP FORWARD FOR OUR INDUSTRY.

Images: [1] Detailed analysis during the various stages of MMA manufacture led to the final input to CEFIC and PlasticsEurope by the three key manufacturers in EAME. The resulting LCA for MMA is a good example of strong collaboration in our industry.



Andy Bragg
Global Sustainability Manager

First of all, here's a quick reminder of what LCA means in terms of the sustainability agenda. LCA is one way of building a picture of what happens throughout the life of a product. From obtaining the raw materials to create it, right through to end of life, when the product is either recycled or disposed of.

LCA progress for MMA

Andy said: "As part of a CEFIC Methacrylates industry group sponsored study, the three key MMA producers in Europe – including LI - have each carried out individual studies to generate LCAs for their products. Independent of this work PlasticsEurope decided to update the information held in its EcoProfile database using the latest methodology and standards. We were then able to volunteer our studies as an early entry into the database revision, which PlasticsEurope used to produce a single European LCA report for Methyl Methacrylate. We're delighted to be able to announce that this externally verified report is now available to view in full at: www.plasticseurope.org/plasticssustainability/eco-profiles.aspx." The PlasticsEurope report is also available to download from the LI EAME Monomers website.

Why is this such good news for us all those who work with MMA?

The European Union is working towards all materials having an Environmental Product Declaration (EPD). An EPD is a verified document that captures a product's environmental data based on LCA and other relevant information in accordance with the international standard ISO14025 (Type III Environmental Declarations). Andy continued: "The EPD sits alongside the REACH Safety Data Sheet (SDS) and Technical Data Sheet (TSD) to provide a comprehensive view of the safety, health and environmental characteristics of that product. If you are carrying out your own LCA for products that you manufacture then the new MMA LCA, produced to the latest standard, can be used as a building block towards this."

More sophisticated LCA approach uncovers MMA's lead performance

PlasticsEurope last collected information on acrylics for its EcoProfile database in the mid 1990s. Since then much has changed. LCA methodology has been expanded and enhanced, new international standards have been implemented, background information on feedstocks and the environment impact

of emissions has significantly increased and manufacturing conversion and energy efficiencies have improved. As a result the completion of an externally validated LCA represents a more complete and accurate summary of the environmental impact of the product under consideration. From the new MMA LCA report the environmental impact most commonly considered is the Global Warming Potential (GWP) - also commonly referred to as the 'carbon footprint'. The EPD for MMA manufactured in Europe reports that the GWP is about 3.5kg CO2/kg of MMA. This compares to GWP values of 4.1kg CO2/kg for polycarbonate and 2.25kg CO2/kg for polystyrene.

Is LCA alone enough to make a comparison?

Andy provides his thoughts: "GWP, or carbon footprint, is just one indicator that can be used to compare alternative products. However, to fully assess a material, a range of indicators must be taken into account, some of which are not easily available in the public domain. For example, there has been a trend towards bio-based products as these can reduce carbon footprint. At first glance, this may appear to be positive as it achieves the desired move away from

reliance on fossil based feedstocks. However, if the bio-feedstock is made from materials that might otherwise have been destined for the food chain, or is produced on land reclaimed from virgin forest, or it results in additional water usage then the real benefits become more questionable. So, while understanding the product carbon footprint is a key component in making a comparison, it is essential that it is used in conjunction with all additional information, which is assessed in an LCA, to ensure a comprehensive view."

So what comes next?

Andy concluded: "The plan is to revise the MMA LCA data every four years, with the expectation that the on-going energy efficiency improvements and continuing technology advancements will contribute towards a lowering of the LCA number over time. Over the next three to four years, the LCAs for all plastics will be updated and made available on the PlasticsEurope website, which is public domain data."

KEY POINTS: MMA LCA

- Generated by state-of-the-art methodology
- Carbon footprint of ACH MMA: 3.5kg CO2/kg
- Customers can use to produce their own LCA with confidence
- Achieved through collaboration across European methacrylates industry.



More: <http://goo.gl/eSgEUd>

See the original LCA article in FreeFlow Issue 11 at: <http://goo.gl/kQzImc>

STAR RISING



THE EAME MONOMERS BUSINESS HAS A CLEAR VISION TO BE THE LEADER IN METHACRYLATES IN THE REGION, AND 2014 MARKS THE BEGINNING OF A NEW PHASE OF DEVELOPMENT TOWARDS THIS GOAL. IN THIS ISSUE OF FREEFLOW WE TAKE A LOOK AT TURKEY, A STAR THAT IS CONTINUING TO RISE, WITH INCREASING OPPORTUNITIES FOR THE BUSINESS, AND HEAR FROM ALAN GALLAGHER, EAME MONOMERS SALES DIRECTOR FOR THE MIDDLE EAST, ABOUT THE COMPANY'S DEEPENING PARTNERSHIP WITH AK-TAS, LUCITE INTERNATIONAL'S (LI) DISTRIBUTOR IN TURKEY.



WHY IS TURKEY SO IMPORTANT FOR US?

Turkey's economy is increasingly driven by its industry and service sectors. An aggressive privatisation programme has reduced state involvement in basic industry, banking, transport, and communication, and an emerging group of middle-class

entrepreneurs is adding dynamism to the economy. The automotive, construction, and electronics industries are rising in importance and have surpassed textiles within Turkey's export mix.



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Images: [1] l-r: Cenk Turkey, Ak-tas' dedicated Sales Manager for LI, Muharram Ak-tas, who founded Ak-tas in 1989, and Malcolm Kidd, Business Manager for Methacrylate Monomers in EAME. [2] l-r: Alan Gallagher, LI's EAME Sales Director for the Middle East and Orhan Tokcan, Ak-tas Board Member. [3] In celebration of a strong partnership.

Solid partnership over 20 years

Established in 1989, Ak-tas and its sister company, Ekin Kimya, is now one of the leading chemical distributors in Turkey. Today it supplies around 3000 customers locally and in neighbouring countries with 1600 different products making it the ideal partner to help take EAME Monomers' strategic growth plan forward in the region. LI is delighted to be celebrating 20 years of partnership with Ak-tas this year and it coincides well with a new phase in the relationship.

Commitment for the long-term

What is changing and how will this affect existing customers and new prospects in and around Turkey? Alan said: "We are deepening our relationship with Ak-tas and having a dedicated sales person operating out of Istanbul, which will give us a much more visible, local presence in Turkey. Supporting this is a strong focus on the Turkish market from LI, which means that we will offer greater levels of supply as well as being even more flexible and responsive to customer needs. It is a clear demonstration of our commitment to the region. In Ak-tas, I believe we have a model commercial partner who will help us to become our customers' MMA supply partner of choice. They share our values and we are especially aligned in our passion for serving customers, which makes this new phase in our partnership very exciting indeed."

Expanding opportunities in Turkey

So, why is Turkey such a great place for expansion? The use of methacrylates in Turkey has seen strong growth in recent years and, given the rapidly developing

economy and excellent geographic location, this seems likely to continue. Alan shared his views: "The economic uncertainty in Europe has led to an increase in the attraction of the Middle East. By comparison to Europe, GDP is strong and it's an exciting place to be with some ambitious construction projects and major government plans for widespread development."

Working together to deliver our promises

Capitalising on these growth opportunities requires vital local knowledge and experience as well as trust and enduring relationships. We asked Phil Bailey, General Manager for LI's EAME region to comment on LI's decision to extend its agreement with Ak-tas. He said: "In line with our values we aim to establish long-term, open and honest relationships with our customers and partners. We've been working with Ak-tas now for 20 years, and they are a great example of this. The new distributor agreement, built on the solid foundations of an excellent relationship between the two teams, is a great opportunity for LI and Ak-tas to grow further in this exciting market. Together we are well placed to support expansion in both the short- and long-term by ensuring the market is supplied safely, reliably, consistently and efficiently."



MEET CENK TURKAY
LI'S DEDICATED SALES MANAGER
AT AK-TAS

Based: Istanbul

Background: Computer Science and Engineering graduate from ISIK University, Istanbul. Worked at IT-based management consultancy, Vodaco, and Accenture before taking an MBA specializing in Finance and Investment Banking at Bocconi University, Milan; joined Ak-tas in 2004.

Role: My first priority is sales in Turkey and we believe that Turkey has potential to be a logistics hub for the wider Mediterranean and Balkan regions.

Customers: A significant proportion of our MMA sales go into the acrylic sheet industry. The remainder is distributed between acrylic-based polymer emulsions for coatings, paints and adhesives, and impact modifiers for PVC industry.

Future: The most exciting part of my new role will be to operate from the perspective of a manufacturer after 10 years of trading with LI as a distributor. I'm also keen to understand the dynamics of the downstream businesses that use MMA as a key ingredient.

HOW WE WORK FOR YOU

EAME MONOMERS IS PROUD TO COUNT MANY LONG-TERM WORKING RELATIONSHIPS WITH ITS CUSTOMERS AND PARTNERS. IT ALSO CONTINUES TO ATTRACT EXCITING OPPORTUNITIES FROM NEW ENQUIRIES. IT'S A POSITION THE TEAM NEVER TAKES FOR GRANTED AND ONE IT WANTS TO BUILD UPON YEAR ON YEAR. "TO DO THIS MEANS BEING VERY CLEAR ABOUT WHO WE ARE, WHAT WE EMBODY AS A BUSINESS AND HOW WE CAN WORK TOGETHER WITH OUR PARTNERS TO SUPPORT SUSTAINABLE PROGRESS", SAYS EAME MARKETING MANAGER, LYN HATCH.

Lyn said: "Over the past two years we've experienced unprecedented levels of challenge and change as we emerged from a deep recession. Add to this the on-going work we are doing to improve the efficiency of our assets and wider business operations to ensure we continue to deliver even more for our customers, and it became clear that

we needed to develop a more systematic approach to defining, living and then communicating the things that are important for us. If we focus on delivering in these key areas, we believe we are best placed to add value to our customers and their businesses and to capitalise on the prospects that exist in our marketplace.

"I'm sure readers will recognise that some of our six key areas of focus describe our values, while others are about the approach we take as we try to make a difference in the industries we serve. In this issue of FreeFlow, I wanted to share and briefly explain our key focus areas."



1. Promoters of methacrylate systems

We will seek to increase demand for methacrylates by: supporting innovation at our customers; driving up efficiencies to build a sustainable business that is a partner for the long-term; promoting the use of methacrylates for new and existing applications.



2. Dedicated local supplier with global strength

As part of a strong global business we are dedicated to providing a reliable, local service to our customers. Our aim is to be the first choice provider of acrylic solutions that meet our customers' needs now and in the future.



3. Sustainable development

We will continue to deliver progress against our commitment to sustainability and the highest levels of Safety Health and Environmental performance as we design, produce and deliver methacrylates that add value.



4. Investors in innovation

Innovation is vital for sustainability. We are committed to continuously improving our operations and, at the same time, supporting our customers selectively in their own innovation programmes.



5. Industry leader

We will act responsibly in accordance with our Company values and seek ways to add value to our customers' businesses as a leader and key influencer within the methacrylates industry.



6. Going further for customers

We will live our Company values and deliver our promises to customers. We are passionate about supporting them in their business aspirations and will 'go further' to provide products and services that they value.

WE VALUE YOUR OPINION

We would very much like to know what you think of FREEFLOW. If you have a particular area of interest or would like to see a particular issue covered next time, please do let us know by emailing comments to: lyn.hatch@lucite.com

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