



# Newsletter

## Autumn 2022

### Editors message for Autumn 2022

Hello and welcome to our newsletter which is published by The Midlands Packaging Society. As a society our board and members are passionate about all matters that embrace the world of packaging. We are keen to share with everyone that has an interest in this subject, our experience and knowledge.

Our Editor has selected a number of interesting news items for this issue from around the world to keep you abreast of developments in this exciting field. If you would like to join us in our monthly meetings we would be pleased to welcome you.

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### **Dow's recyclable packaging solution is certified to reduce 35% life cycle carbon emissions**

Dow's recyclable packaging solution, enabled by INNATE™ TF Polyethylene Resins for Tenter Frame Biaxial Orientation (TF-BOPE), is now officially certified in China to reduce carbon emissions by 35 percent compared to traditional unrecyclable packaging materials, supporting brand owners in achieving their carbon reduction goals.

TÜV Rheinland, a leading global testing service provider, has certified that the all-PE recyclable packaging created with Dow's INNATE™ TF-BOPE emits 0.0194 kg carbon dioxide equivalent (CO2e) during its lifecycle, while traditional stand-up pouch packaging made with polyethylene (PE) and polyethylene terephthalate (PET) composite materials emits 0.0297 kg CO2e.

The verification and validation process included site visits to Fujian Kaida, the packaging manufacturer in China, and Luhai, a Chinese integrated waste management company, as well as product document reviews and interviews with operational, technical and EH&S subject matter experts from Kaida and Luhai to calculate carbon emissions of this recyclable packaging from cradle to grave.

"This certification is testament to the value of Dow's

recyclable packaging solutions in supporting customers to achieve their carbon reduction goals," said Bambang Candra, Asia Pacific Commercial Vice President of Dow Packaging and Specialty Plastics. "Adopting recyclable packaging is a step in the right direction to advance a sustainable future, and we strive to continue working closely with our partners to promote the circular economy for plastics."

This recyclable packaging solution has been adopted by Liby for the laundry pods. By replacing all its unrecyclable flexible packaging with Dow's recyclable packaging solution by 2025, Liby estimates that 4 million kg CO2e can be saved every year.

The Packaging and Specialty Plastics (P&SP), a business unit of Dow, combines core strengths of R&D, worldwide reach, broad product lines and industry expertise to deliver high performing technologies for end use markets in food packaging, personal hygiene, infrastructure, consumer goods and transportation.

The Company is one of the world's largest producers of polyethylene resins, functional polymers, and adhesives, and enabled by Pack Studios, is a leading innovator and collaborator across the value chain on sustainable application development and circular economy life-cycle design for plastics. [www.dowpackaging.com](http://www.dowpackaging.com)

# The Midlands Packaging Society News—Autumn 2022

## ExxonMobil Introduces New Exceed™ S Performance Polyethylene, Enabling Converters to Rethink Film Design for Simpler Solutions

ExxonMobil has introduced its new Exceed™ S performance polyethylene (PE) resins, which deliver industry-leading combinations of stiffness and toughness while being easy to process. Utilizing the company's latest innovations in polymer science, the new PE platform provides opportunities to reduce the complexity of film formulations and designs while improving film performance, conversion efficiency, and packaging durability versus current market references.

Modern film design is a story of increasing complexity and compromise between performance and processability that is accepted to ensure durable packaging and high customer satisfaction. Multi-component resin blends in coextruded and laminated films with high layer counts are commonplace. Every step of producing and converting printed film into durable packaging is prone to complexity-induced inefficiency, scrap and human mistakes. What if your resin could help simplify all of this?

"Exceed™ S performance PE resins deliver simplicity without compromise," said Tom Miller, Exceed™ S marketing manager at ExxonMobil. "With Exceed S, converters can obtain high levels of performance with easy processing, stiffness and toughness with less blending, and resin solutions that can simplify operations and improve package durability. In short, it is a platform of performance polyethylene grades designed to do so much, so simply."

Innovative converters can rethink film design with Exceed™ S performance PE by...

- Creating stiff, tough functional layers to maximize performance
- Leveraging increased performance to help facilitate solutions with sustainability benefits
- Reducing the need to add HDPE for stiffness or LDPE for processing
- Creating flatter, less extensible films to increase print and package line efficiency
- Delivering more durable flexible packaging, contributing to consumer satisfaction and helping to reduce food waste

The first three commercially available grades of Exceed™ S resins are designed to ensure low melt pressure and high

output on blown film lines. The combined benefits allow the creation of a broad range of packaging and film applications:

- Large-format **heavy duty sacks** used in industry and agriculture along with silo bags for farming can benefit from increased puncture, impact and tear resistance. Exceed™ S resin's combination of low melt pressure and high extrusion output can also help increase converter's production capacity.
- In **primary packaging**, non-laminated coextruded films used in pouches and bags containing liquid, food, or other goods can benefit from improved toughness and are less likely to break when transported or dropped. For example, multi-wall bladders used in **hot-filled bag-in-box packaging** exhibit exceptional resistance to heat-induced blocking and flex cracking.



- **PE//PE laminates** with improved stiffness, toughness and bag drop survival can help facilitate larger pouch sizes and accommodate bulkier, heavier contents, helping to expand market usage of mechanically recyclable packaging.\*

In these types of applications, the

outstanding mechanical properties of Exceed™ S resins can be used to increase film performance, maintain comparable performance at a thinner gauge, produce more durable mono-material products, or incorporate high percentages of recycled content. Providing such solutions are part of ExxonMobil's four-pronged approach of using performance polymers to help facilitate solutions with sustainability benefits.

"ExxonMobil has been at the forefront of polyethylene innovation for nearly thirty years," said David Hergenrether, vice president for polyethylene at ExxonMobil. "The new Exceed™ S platform embodies our most advanced product and process development informed by deep, long-standing partnerships with our customers." "The innovation opportunities that Exceed™ S performance polyethylene offers have already resulted in successful collaborations with more than 75 customers globally working on more than 100 different applications. We look forward to collaborating with our customers on new opportunities to advance their products."

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### **Amcor to partner with Michigan State University to power innovation and talent in sustainable packaging**

Amcor and Michigan State University's (MSU) School of Packaging have announced a new partnership, reflecting the parties' shared commitment towards future talent, greater innovation and responsible packaging.

Amcor plans to invest over \$10 million in MSU's School of Packaging – the largest investment in the history of the university's College of Agriculture and Natural Resources (CANR), under which the School of Packaging sits. The funding, which forms part of Amcor's commitment to supporting the next generation of responsible packaging talent, will be used to help the school further its high academic standards and enable facility modernization upgrades that ensure students have access to state-of-the-art technology.

The partnership between these two leading organisations will also support the creation of an Endowed Chair of Packaging Sustainability to drive forward further research and innovation in the topic.

Ron Delia, Amcor CEO, commented, "This is an important investment in the future of the packaging industry, which will be defined by responsible, sustainable packaging solutions. MSU already attracts the greatest talent in the industry and Amcor is committed to fostering the boldest thinkers as they make ground-breaking advancements in more sustainable packaging solutions."

The breakout investment is the latest example of Amcor's strategy to drive innovation and identify new avenues for growth as it continues to advance responsible packaging. Amcor is partnering with a range of organizations to create packaging that is designed to be recycled or reused and implement new technologies that make its manufacturing more efficient, which makes its employees more productive and safer.

MSU President Samuel L. Stanley Jr., M.D., said, "We are grateful to Amcor for its recognition of MSU's leadership in packaging education and our commitment to sustainable innovations. Together, we will ensure that the industry remains well equipped with global talent and leadership to meet the challenges of providing packaging that keeps food and

medicines safe while furthering the circular economy."

The School of Packaging was named by Universities.com as the top packaging program in the nation and the school supports industry-advancing research in sustainable polymers, packaging life cycle analysis and fresh food packaging.

Matt Daum, PhD., director of the School of Packaging added, "Amcor has a reputation for quality, excellence and innovation, and has best-in-class research capability with sustainability experts around the globe. With Amcor, we are excited to create a partnership that leverages and enhances the School of Packaging's global reach and expertise in packaging sustainability research. Our alumni can feel confident we are poised to continue providing the packaging community with thought leadership and best-in-class packaging education."

Michigan State University has been working to advance the common good in uncommon ways for more than 165 years. One of the top research universities in the world, MSU focuses its vast resources on creating solutions to some of the world's most pressing challenges, while providing life-changing opportunities to a diverse and inclusive academic community through more than 200 programs of study in 17 degree-granting colleges.

The [MSU School of Packaging](#) is the first school of packaging in the United States and the largest packaging program in the country, with nearly 700 undergraduate and graduate students. It is the only school that offers a Ph.D. program in packaging, boasting 10,000 alumni worldwide.

Amcor is a global leader in developing and producing responsible packaging for food, beverage, pharmaceutical, medical, home and personal-care, and other products. Amcor works with leading companies around the world to protect their products and the people who rely on them, differentiate brands, and improve supply chains through a range of flexible and rigid packaging, specialty cartons, closures, and services. The company is focused on making packaging that uses less materials, is increasingly recyclable and reusable, and is made with more recycled content. Around 47,000 Amcor people generate \$12.5 billion in annual sales from operations that span about 230 locations in 40-plus countries.

# The Midlands Packaging Society News—Autumn 2022

## Cascades enhances its line of Eco-Friendly Packaging with an Innovative Recycled Material Solution

Cascades, a packaging company based in Quebec, is expanding its eco-friendly packaging line with the addition of a 100% recycled PET tray which is also recyclable<sup>1</sup>. Its innovative design makes the tray perfectly compatible with the packaging equipment already used by food processors and retailers.

The 100% recycled PET composition of this tray and its optimised design make it a leading alternative to hard-to-recycle food packaging. By using recycled PET exclusively, Cascades is helping its customers reduce their impact on climate change by 69%.<sup>2</sup> The desire to include this new product in the logic of circular economy was a priority from the outset of its design, and the efforts made in this regard led to meaningful recognition: How2Recycle® has prequalified this tray as widely recyclable in Canada and recyclable in limited communities in the United States.<sup>3</sup> It took three years of research to develop its unique design that allows for minimal use of materials while ensuring optimal rigidity. Its rolled edges reduce the risk of tearing when using shrink-wrap, helping to prevent food waste.

"This latest innovation is the fruit of our continuous efforts to find more sustainable solutions and develop a truly circular economy for food packaging. We would like to thank our early adopter customers for their trust," said Luc Langevin, President and Chief Operating Officer of Cascades Specialty Products Group.

The tray is manufactured in Québec at the Cascades Inopak plant, which has benefited from an investment program of over \$30 million aimed at supporting the development of packaging made from 100% recycled PET flakes. These investments are part of Cascades' plan to grow as a North American leader in eco-friendly packaging. This new product contributes to the achievement of one of the goals in



A rolled edge tray made of 100% recycled PET and designed with circular economy in mind. (CNW Group/Cascades Inc.)

Cascades' Sustainability Action Plan: that 100% of its manufactured packaging be recyclable, compostable or reusable by 2030.

<sup>1</sup> In the United States, the tray may not be recyclable in some areas.

<sup>2</sup> Life cycle analysis of Cascades trays (LCA), Groupe AGÉCO, July 2021.

<sup>3</sup> How2Recycle® is an initiative of the Sustainable Packaging Coalition.

## PFF Group aims to bolster recycling rates with digital watermarking technology

The food packaging manufacturer said that its ambition is that digital watermarks, which are imperceptible codes on the surface of packaging, can be read at waste sorting facilities by high-resolution cameras, resulting in more accurate sorting and detection of higher quality recyclates.

A trial is being overseen by AIM – the European Brands Association and the Alliance to End Plastic Waste – and is supported by over 130 companies and organisations.

PFF has invested £200,000 in new transformer technology to reduce the company's carbon emissions by 5%, as well as the launch of the IMPAC-T, which is said to use less plastic than equivalent PET packaging and is suitable for all food applications.

Ian Smith, group sales director at PFF Packaging, said: "Innovation and digital are the core drivers towards sustainability. At PFF we take our carbon zero commitments seriously as evidenced by our continued investment in new processes to engineer plastic out of products. This watermark technology provides a digital record of a product's journey and has an important role to play in helping to achieve recycling targets and in making the use of recycled polypropylene in food applications a reality."

### Editors Note:

Digital watermarking is increasingly seen as a method of identifying packaging waste prior to sortation. The marks are added to the artwork on printed packaging and form part of the printing plate which is subsequently used to apply ink to the surface of a product's labels or packaging.

Watermarks can also be added to moulds and thereby are transferred to plastic containers or trays during the manufacturing process. Such markings are invisible to the eye but may be picked up by cameras linked to a waste recycling system whereby identified items can be sorted into their relevant material streams.

Watermarks come in two formats for printed packaging and labels, static and serialised. Static watermarks bear the identity of the base material, PPE, Paper, Board etc. Whilst watermarks that are created in digital print may contain extra information in addition to material type. This information may include a serial number, source of manufacture, expiry date and the like.

Digital watermarks have been used to protect security print from counterfeiting for a number of decades. They are now seen as an ideal method of tracking and tracing goods through their packaging and beyond into the waste stream.

[Are connective packaging technologies the solution to brand protection sustainability? \(packaginginsights.com\)](https://www.packaginginsights.com)

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## Circularity Takes Centre Stage – Flint Group Supports Global Ceflex Packaging Project

Flint Group Packaging, one of the largest consumables suppliers to the global print and packaging industry, has lent its support to the CEFLEX Quality Recycling Project (QRP), co-developing and trialing duplex laminated flexible packaging comprising Polypropylene (PP) recyclate (rPP).

Working alongside some of the most established global names in print and packaging, the main goal of the QRP is to create a PP recyclate structure that does not inhibit the printing and converting process of today's supply chain. In doing so, the project aims to ultimately recycle a higher percentage of PP in non-food contact film applications.

The project takes direct aim at the significant issue of low recycling rates in consumer households across Europe. Representing a large-scale collaboration between more than 180 organisations, associations and stakeholders across Europe, the CEFLEX project has made positive progress in showcasing the potential of a recycle-ready mono-material substrate.

Following a series of five semi-industrial trials to test the viability of printing on films made using rPP resin, results showed that the use of post-consumer recyclate in the packaging structure did not inhibit the printing or converting process of a monopolymer PP duplex laminated barrier pouch in non-food applications.

Matthew Rowland-Jones, Sustainability Officer at Flint Group, explains the significance: "Our team was delighted to provide the water-based inks and to add its expertise to the number of businesses supporting this important CEFLEX project. One of the biggest challenges in sustaining long-term growth for the packaging sector is that still to this day, a large proportion of flexible packaging cannot be easily recycled. If we want to secure the future of the sector, we need to put circularity at the front and centre of our focus and continue to close the plastic loop.

"By co-developing and trialing an rPP substrate that is easy for printers and converters to work with, we are opening a

more robust path for long-term growth. At the core, it's about expanding the boundaries of what PP recyclate can achieve to prove that it's compatible with today's presses, converting technologies and quality demands. It's a great move forward for the wider print and packaging industry. With collaboration and innovative thinking, a greater proportion of flexible packaging waste can be processed in recycling streams. We are another step further from the linear waste streams that hold the packaging industry back, and that's something to celebrate."

The next stage of the project will see the creation of an industrial scale QRP waste processing plant, which is anticipated to be in active commercial use by 2023.

Mr. Rowland-Jones added: "One of the biggest roadblocks to the adoption of rPP in flexible packaging applications has been that it's perceived as challenging to work with on press. The CEFLEX project is helping to break down this wall by showing that sustainability and performance are not

mutually exclusive – and we're extremely proud to be part of driving that change."

*Flint Group is dedicated to serving the needs of the global Flexible Packaging, Paper & Board, Narrow Web and Publication industries, both conventional*



*and digitally printed. The company develops, manufactures and markets an extensive portfolio of printing consumables and equipment, including: a vast range of conventional and energy curable inks, coatings and additives for Flexographic, Gravure & Offset applications; pressroom chemicals and printing blankets. Furthermore, Flint Group designs and manufactures digital printing presses for labels, corrugated packaging, document and commercial applications. The company is a leader in colour management solutions which are supported by a Global Colour Centre to ensure colour consistency and standardisation. Flint Group strives to support its customers through a relentless focus on developing: innovative products, exceptional levels of service and the security of supply. [www.flintgrp.com](http://www.flintgrp.com)*

## The Midlands Packaging Society News—Autumn 2022

### Global luxury packaging provider Delta Global launches its first exclusive packaging collection

UK headquartered Delta Global provides luxury and sustainable packaging solutions to the world's biggest brands and the firm's newest launch is set to be no different. The launch, Delta Global Originals, consists of ten entirely unique and innovative packaging designs that have been designed, developed, and manufactured in-house. Delta Global Originals Collection.

Renowned for combining luxury with sustainability, Delta Global has become the fashion industry's go-to provider of innovative, experiential packaging and the 'Originals' are set to take this to a whole new level.

Robert Lockyer, Founder and Chief Client Officer at Delta Global explains why the international luxury packaging provider decided to create these ten exclusive designs. "Our aim is to innovate, challenge and disrupt the industry, and this launch enables us to take our aim multiple steps further."

"There are already lots of packaging solutions on the market – some of which we have created and are responsible for – however, we mustn't take our foot off the pedal. Our four key pillars are at the very heart of Delta Global, with 'Originals' having a primary focus on sustainability. In fact, sustainability is the very reason we launched the Delta Global Originals. Our own market analysis identified a gap in the market, and so we've made it our mission to push boundaries". He continued.

All packaging products within the collection are made from materials that are sustainable and FSC accredited. Each design is either entirely recyclable or entirely reusable, allowing for a completely multipurpose, multifunctional product.



"Sustainability is the core focus, without compromising premium quality or experience. Each 'Original' encompasses a strong sense of luxury and creates the ultimate unboxing experience for both our clients and their consumers – it was important for us to ensure that these elements weren't lost." Robert added.

From the design and look to the texture, feel and finish, each 'Original' screams elevated luxury while positively contributing to society. <https://deltaglobal.co/>

### Keith Barnes reports on London Packaging Week at Olympia and the PPMA Show at the NEC

Olympia is undergoing changes at present, so we were placed in the National hall this year which has a ground floor and first floor balconies. It felt as though there were less exhibitors and many more from overseas. It was noticeable that there was no IOM3 Packaging Group stand and it was missed. However there seemed to be plenty of visitors on the 21/22 September and the usual large number of presentations.

Most of the usual companies were present and our local company – Reflex had two stands for labelling and flexible packaging. There was greater emphasis on consulting and IT activities as this is the way forward in our ever-changing world. Many will remember Alison Vincent (AVA Packaging) who was an active packaging consultant. Here at Olympia, she had a stand showing her new career in glass manufacturing. One is always amazed at where packaging can lead.

Another well-known face was David Peters, who I first knew in Design at Boots many years ago. He has moved onwards and upwards through the flexible packaging industry and now heads up Unifoil as a Director. They have a standing in the USA and Poland.

As the London exhibition has developed it has become associated with luxury packaging, much evident on many stands. With the PPMA show coming up at the NEC at the end of September there was little evidence of machinery. It was suggested that next year the exhibition will be at Excel in East London.

As with the Easyfair Packaging Week London show it seemed as though there were fewer exhibitors at PPMA than previous years. As in earlier years the PPMA had a large stand, always busy, but I managed a few words with David Harrison and will be following up on education and our Society links at a later date. I did not notice any new earth shattering moves within the hall but was pleased to see Jenton with a larger area and new activities lead by our good friend Richard Little.

Here as in London there were more stands from overseas and a larger interest in IT and Digital.

For more information about the Midlands Packaging Society, please see <https://www.iom3.org/group/midlands-packaging-society-mpkgs.html>

