

Film and Sheet EXTRUSION



DEVELOPMENTS IN MASTERBATCH

TECH UPDATE: MULTILAYER PACKAGING

PVC PLASTICISERS ● MATERIALS HANDLING

AMI | Events

Flexible Packaging Innovation and Recycling

24-25 November 2026 | Vienna, Austria

The latest innovations improving the sustainability and performance of flexible plastic packaging

Industry-leading speakers include:



Alessandro
D'Agostino
Mondi



Guido Aufdemkamp
Flexible Packaging
Europe (FPE)



Dr. Andrey
Charkovskiy
Siegwerk



Martina Wagner
Constantia Flexibles



Dr. Paul Neumann
Advanced
Packaging
Association AISBL



Dennis Bankmann
CEFLEX

Sponsored by:



BOOK YOUR PLACE TODAY

Film and Sheet EXTRUSION

4 Industry news

13 Myriad benefits of multilayer film

Recent developments in multilayer film include a pouch to package oil and lubricant, new films for fish and seafood and a five-layer line that boosted a converter's output

19 Search continues for alternative plasticisers

Work to replace DEHP and other phthalate plasticisers is focusing on bio-based sources, writes Chris Saunders, but switching to alternatives is not straightforward

23 Feeding time: materials handling

Many new conveying, feeding and blending systems have hit the market recently – many of them at K2025 last year – to make materials handling more efficient

29 Assessing AI and new trends in masterbatch

Colour and additive masterbatches continue to play a key role in producing thermoplastic compounds that meet market demands.

Jennifer Markarian reports on market trends

COVER IMAGE: UBQ

38 Extruder of the month: Tropic Plastic & Packaging

40 Dates for your diary



PAGE 13



PAGE 19



PAGE 23



PAGE 29

COMING NEXT ISSUE

› Extruder developments › Biax Film › PEWE North America preview › Recycling/granulators

CONTACT US

AMI

Ground Floor, One Brunswick Square,
Bristol, BS2 8PE, United Kingdom
Tel: +44 (0)117 924 9442
www.amiplastics.com

www.twitter.com/plasticworld
Registered in England No: 2140318

EDITORIAL

Editor-in-Chief: David Eldridge
david.eldridge@amiplastics.com

Editor: Lou Reade
lou.reade@amiplastics.com

Events and Magazines Director:
Andy Beevers
andy.beevers@amiplastics.com

[DOWNLOAD MEDIA DATA](#)

ADVERTISING

Advertisement Manager: Claire Bishop
claire.bishop@amiplastics.com T/ +44 (0)7905 848744

Advertising Sales (China/Hong Kong): Maggie Liu
maggie.liu@ringiertrade.com T/ +86 13602785446

Advertising Sales (Taiwan): Ms Sydney Lai
sydneylai@ringier.com.hk T/ +886-913625628

Advertising and Expo Sales (India): Yogesh Vyas
yogesh@exhibetter.com T/ +91 9920735930

© Copyright Applied Market Information. No part may be reproduced without the prior written permission of the publisher.

North American machine deliveries decline in Q2

North American deliveries of plastics machinery fell in the second quarter of the year, though new orders were on the rise.

The Plastics Industry Association's Committee on Equipment Statistics (CES) said that shipments reached around US\$236 million – down 7% year-on-year, and nearly 15% since Q1.

Year-on-year, deliveries of twin-screw and single-screw extruders fell by 60% and 35%, respectively, while those of injection moulding machines grew nearly 5%. Since Q1, twin-screw deliveries grew 25%, but there

were declines for single-screw extruders (22%) and injection moulding (16%).

The continued weakness in deliveries reflects the normal lag between new orders and deliveries for capital equipment, said the organisation. "An order is recorded when the customer commits to the equipment, while the shipment occurs later, after engineering, production, testing, and delivery," said Perc Pineda, chief economist at the organisation.

In US plastics machinery trade, exports reached US\$756m and imports

US\$276m, for a US\$480m trade surplus – a 24% increase from a year earlier.

"The combination of strong orders and modest shipments could be interpreted as a sign of strengthening pipeline demand rather than immediate weakness in market conditions," said Pineda. "The lag between orders and shipments helps explain the softer shipment numbers."

The second-quarter CES survey showed a cautious near-term outlook but more confidence over the next 12 months. For Q3, 35% of respondents expect improvement, while 35% anticipate deterioration (compared with 32% and 20%, respectively, in Q1). Over the next 12 months, 39% expect conditions to improve, while 28% anticipate deterioration.

This suggests continued near-term uncertainty but stronger longer-term expectations, consistent with the increase of new orders in Q2, said CES.

➤ www.plasticsindustry.org

Maag buys die maker Cloeren

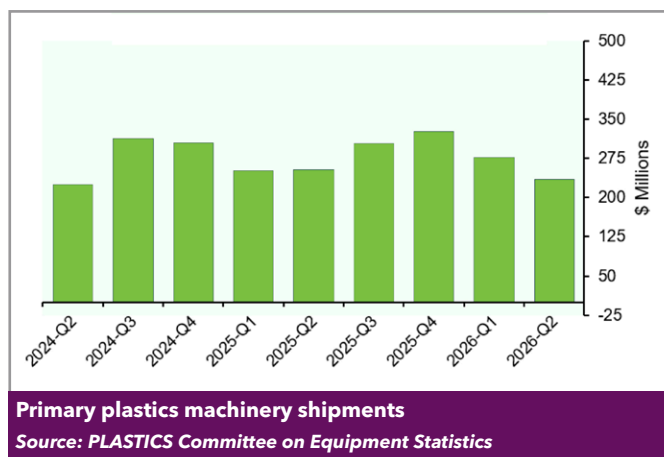
Maag Group, which is owned by Dover Corporation, has signed a definitive agreement to acquire US-based Cloeren, which produces extrusion dies and other equipment. The strategic acquisition will add complementary extrusion technologies to Maag's plastics processing technologies, the company said.

Cloeren designs and manufactures custom-designed extrusion slot dies and feedblocks primarily for polymer and plastics applications. It is based in Orange, Texas near North America's petrochemical and energy export hub, with additional manufacturing locations in Marshall, Texas; Eau Claire, Wisconsin; and Micheldorf, Austria.

"Cloeren is a strategic fit for us and will enhance our capabilities in extrusion applications," said Ueli Thuerig, president of Maag.

➤ www.maag.com

➤ <https://cloeren.com>



New ASTM aquatic environment standard

ASTM International has officially approved a new standard.

Designated as D8646, it calculates and reports how long designated as D8646, to calculate and report how long it takes for non-floating biodegradable plastics to completely break down in cold aquatic environments.

"Stakeholders across industry, academia, government, and regulation need a reliable science-driven stand-

ard to estimate complete biodegradation times for plastics intended for aquatic use," said Ramani Narayan of the Department of Chemical Engineering and Materials Science at Michigan State University.

However, running biodegradation tests at low temperatures is often impractical because the slow reaction rates drive up both time and cost, said Narayan. The new standard provides a

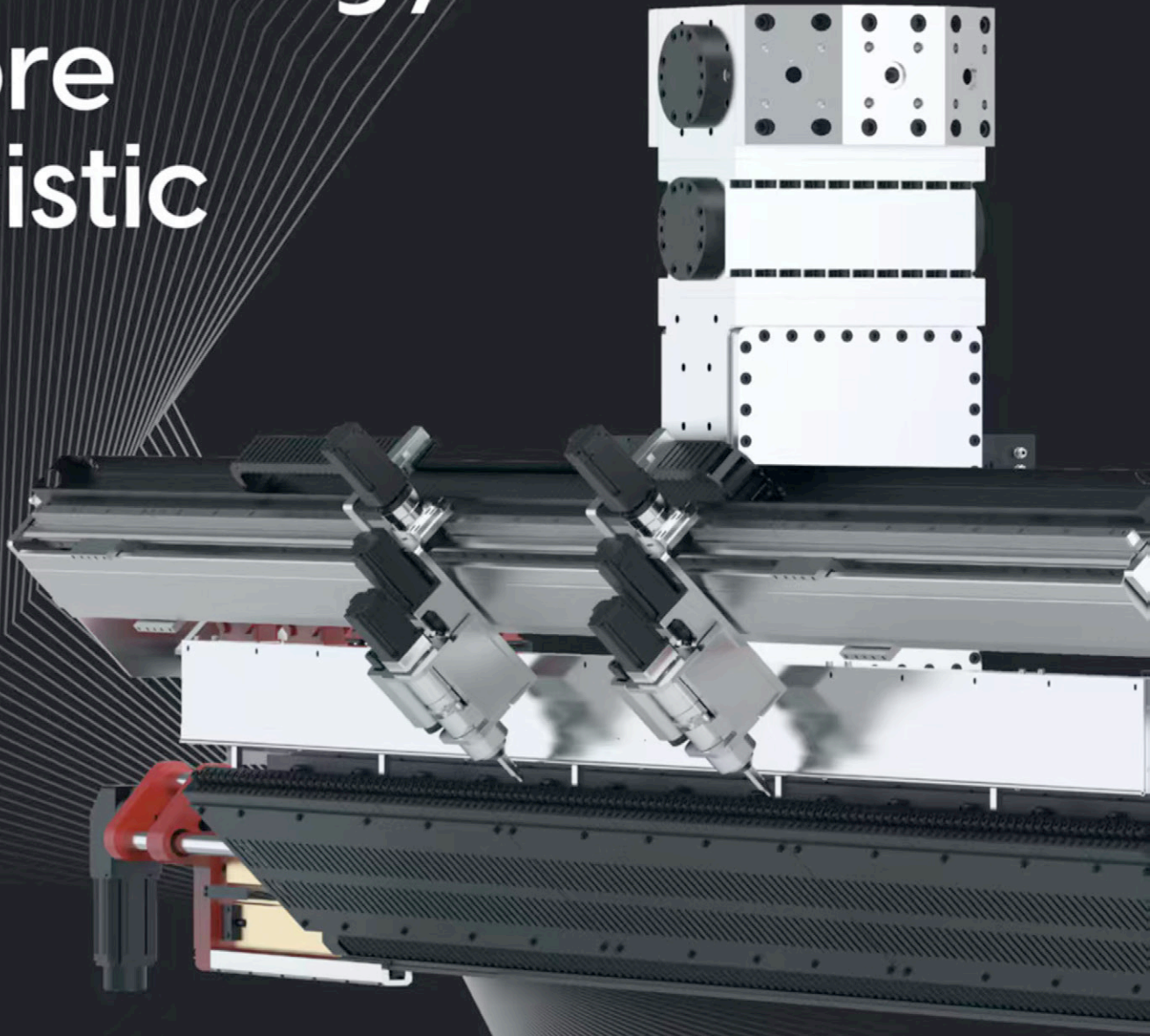
testing and reporting methodology.

According to Narayan, the new test method applies fundamental reaction kinetics principles to experimental aerobic biodegradation data from ASTM and ISO standard test methods to estimate time required for complete polymer carbon removal by microbial metabolism at the lower temperatures typical of aquatic environments.

➤ www.astm.org

Make Technology More Artistic

JCTIMES 



IM SYSTEM Intelligent precision multi-layer die

Expanding boundaries, defining precision future.

Visual smart positioning, dual-drive online coordination,
real-time adjustment of an ultra-wide die, eliminating manual variables with
precision algorithms, empowering efficiency in "dark factories"!

Mail box



jc-times.com



Renolit invests in mixing

Renolit has invested €56 million to expand raw material processing at its site in Worms in Germany – with a new mixing plant is where raw materials are weighed and blended.

Construction of the facility, which began in February, is expected to be completed by December 2026 – for commissioning in June 2027.

“Renolit is paving the way for long-term, efficient and environmentally friendly production,” according to Michael Bätz, plant manager at the site.

“The facility helps us make our production processes more efficient while improving conditions for staff.”

➤ www.renolit.com

Interzero to produce food-grade PP recyclate

German full-service provider Interzero is building a new site in Dessau where it plans to produce food-grade polypropylene (PP) regranelite from Germany's lightweight packaging collection system.

“Despite the difficult market environment, Interzero is continuing to invest in mechanical recycling with our new site for the production of recyclates that are suitable for contact-sensitive applications,” according to Jan Kroker, CEO of Interzero.

“With this step, we are demonstrating how effective the circular economy can be and making a clear commitment to Europe's raw material sovereignty,” he added



The feedstock will come from Interzero's own lightweight packaging sorting facilities.

In Dessau, bales of recyclable material are first shredded and washed, then re-sorted and processed. The resulting flakes are subsequently recycled with the necessary decontamina-

tion carried out on site with a partner.

All tests relating to the sorting and recycling process have been completed successfully and the pilot plant, initially designed for a production capacity of 5,000 tonnes/yr, is currently under construction.

➤ www.interzero.com

PC sheet for urban art project

The Mapquilt Tree, an art project by Stephanie Imbeau, uses solid polycarbonate sheets supplied by Exolon.

Imbeau says it reflects the urban structure of Berlin's Wedding district as a stylised tree canopy. Inspired by the concept of a quilt, the design brings together numerous individual sections. The choice of materials – stainless steel and polycarbonate – creates a connection to everyday urban life as they are familiar elements of the built environment. Streets and

pathways become stainless-steel branches framing the built-up areas – represented by the translucent polycarbonate sheet.

Opal white 5mm-thick Exolon UV solid polycarbonate sheet, with UV protection on both sides, was used for the translucent elements



of the canopy. The soft white tone enhances the sculpture's open, airy appearance, while changing daylight conditions and viewing angles create a variety of visual effects, says the artist.

Imbeau said she was impressed by the material's ease of processing, visual quality and thermoforming capabilities – which made it possible to shape the individual elements of the canopy and integrate them into the stainless-steel structure.

➤ www.exolongroup.com

A detailed view of a Macchi industrial extrusion line, showing complex machinery, pipes, and a large black cylindrical component with the Macchi logo. The background is a blurred industrial setting with bright lights.

EXTRUSION... MADE EASY!

**Advanced engineering
doesn't have to be complicated.**

Macchi extrusion lines **combine
top-level performance with intuitive operation**
and smart maintenance, making blown film
extrusion easier than ever.

- ✓ High efficiency
- ✓ Advanced automation
- ✓ Strong reliability
- ✓ Maximum flexibility



www.macchi.it

Simona grows H1 sales and profits

Simona says it posted "significant growth" in revenue and earnings in the first half of the year.

Sales rose more than 12% to nearly €340million, on the back of a 10% rise in volume to nearly 90,000 tonnes. After a 2% increase in Q1 revenue, Q2 revenue rose by 23% to €184m.

Profit (EBIT) in H1 almost doubled to €31m in the first half of the year. Despite volatile market conditions, Simona has raised its revenue guidance for 2026 to €630-650m.

Performance was positive across all three regions in the first half of the year. Sales in EMEA grew 18% to



IMAGE: SIMONA

Schönberg: "Significant growth in revenue, sales volume, and earnings in H1"

€227m, due mainly to higher sales volume and revenue in the Industry and Infrastructure business lines. Despite a 4% rise in sales

volume, sales in the Americas region were flat at €86m against a backdrop of product mix, pricing and the currency effects of a weaker US dollar.

Revenue in Asia-Pacific increased 19% to €27m, fuelled mainly by strong demand from the semiconductor industry.

This trend was reflected in growth across other business lines during the first six months of the year: Industry grew 15% to €123m, Advertising & Building rose 9% to €41m and Infrastructure increased 29% to €84m. However, despite growth in the field of aviation, sales in Mobility

fell to €34m, reflecting the "persistent contraction of automotive business in China".

"In the first half of 2026, we achieved significant growth in revenue, sales volume, and earnings," said Matthias Schönberg, CEO of Simona.

"Since March, we have seen increased raw material prices. This presented major challenges but generated exceptional demand as customers brought purchases forward."

Against this backdrop, Simona anticipates a slowdown in the second half of the year.

➤ www.simona.de



TPU Invisible Braces Production Line



JIANGSU JWELL INTELLIGENT MACHINERY CO., LTD.

Add: No.123, Liangfu Road, Taicang, Suzhou City, China

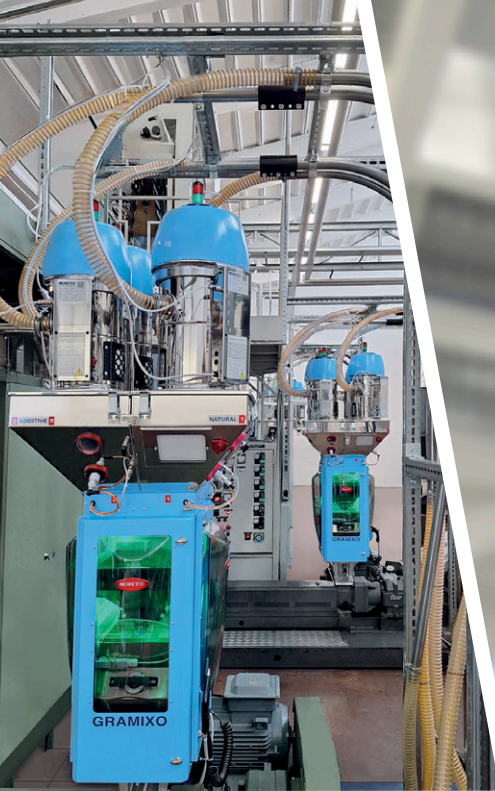
Tel: +86-13962629288

E-mail: saldi@jwell.cn

www.jwell.cn

sales@jwell.cn





Automatic control of the extrusion process.



moretto.com



Hall B3 - Stand 3208

AMI | Events

Stretch and Shrink Film

December 8-9, 2026 | Savannah, GA, USA

Unwrapping sustainable
innovations in the stretch and
shrink film industry

Listen to industry leaders including:



Stephenie
Henderson
Amcor Flexibles
North America



Olivier Catherine
ExxonMobil
Technology and
Engineering
Company



Akanksha Garg
The Dow Chemical
Company



Liam Bland
Castle Industrial

Book your place today

Sponsored by:

ExxonMobil
Signature Polymers


abzac


DOW

SML
EXTRUSION LINES – ENGINEERED TO PERFORM

Nexam Chemical adds new customers

Nexam Chemical says it has signed up two more customers for its Reactive Recycling process – one based in North America and another in Europe.

The North American customer is a Canadian manufacturer of rigid food packaging, using Nexam's recycled PET (rPET) technology. Following validation, the customer will use Nexam's technology for commercial production. The European customer in the same broader segment has also progressed from industrial trials to commercial use following successful testing.

"We are seeing more customers move from laboratory and industrial trials to actual use in commercial production," said Henrik Bernquist, business manager for recycling at Nexam.

"These two new customers show

that Reactive Recycling is delivering tangible value in industrial applications," he said.

In parallel, Nexam says it has seen increased customer activity "at the top of the commercial funnel".

In June and July, the number of samples shipped for evaluation by prospective customers increased by over 80% compared with the same period last year.

Qualified enquiries have also come from a diverse range of geographic markets.

Ronnie Törnqvist, CEO of Nexam Chemical, added: "The geographic reach of the interest in our solutions is clearly broadening.

"Our focus now is to systematically convert this growing pipeline into industrial trials and ultimately commercial production."

➤ www.nexamchemical.com

Asahi Kasei opens US separator coating line

Asahi Kasei has expanded battery separator production capacity in the US with the opening of a new coating line.

The new capacity – at its Celgard facility in Charlotte, North Carolina – establishes "a regional supply structure for wet-process separators", it says.

The company says the investment comes as North American battery demand is expected to expand beyond electric vehicles, due to increasing deployment of energy storage systems.

"The Charlotte coating line is a key milestone in establishing our North American supply platform for battery separators," said Ryu Taniguchi,

president of Asahi Kasei Battery Separator.

"We are expanding our North American product portfolio to include both dry-process and Hipore wet-process technologies."

Asahi Kasei is also building a wet-process separator facility in Canada, which is "progressing according to plan".

The company says the two plants will "establish a regional supply framework for wet-process separators".

"Together with the planned Canada facility, this [new] investment will bring production capabilities closer to the region's battery market," added Taniguchi.

➤ www.asahi-kasei.eu

Key innovations for film stretching lines



- Greenline concept for saving energy and raw materials
- 12m lines: Increased productivity and efficiency
- Solutions for recycle use
- Heat recovery unit reducing operating costs



23-24 September 2026 • Messe Frankfurt

CONFERENCE PROGRAMME NOW LIVE!

CONFIRMED SPEAKERS INCLUDE:



MARINELLA VITULLI



DR NICOLAS REINHARDT



PHILIPP NIEHUES



GUIDO AUFDEMKAMP



MARIA VERA DURAN



KIM VAN DE VELDE



ANNA GERGELY



ARNE JOST

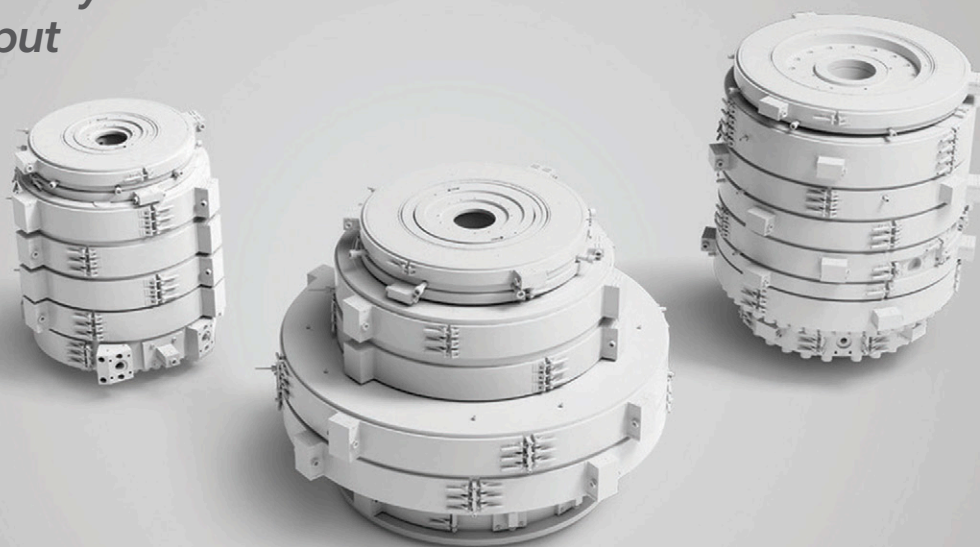


[REGISTER FOR FREE >](#)

[EXPLORE THE PROGRAMME >](#)

Myriad benefits of multilayer film

Recent developments in multilayer film include a pouch to package oil and lubricant, new films for fish and seafood and a five-layer line that boosted a converter's output



Multilayer film is critical in packaging, helping to deliver barrier and mechanical properties – which is increasingly achieved with mono-material solutions.

Tropic Plastic & Packaging Industry, a South African manufacturer of flexible packaging, recently bought an Evo five-layer blown film line from **Reifenhäuser**.

The Durban-based company is a specialist in extrusion, flexographic printing, lamination and bag conversion. But in 2025, it saw the need to invest in a new line. “We had to increase the capabilities and capacities in our production,” said Ismail Simjee, CEO of Tropic.

This was particularly important in the premium product segment. Tropic wanted to expand extrusion volume with a new line – while offering even higher-value film quality.

“The five-layer line allows us to place desired functions exactly where they are needed in the film,” said Ismail Simjee, CEO of Tropic. “Our customers now receive higher-performance packaging at a competitive price, and the new technology enables us to innovate on an industrial scale – not just within pilot trials.”

In addition, recycle can be used in the

second and fourth layers.

Among other things, Tropic makes food packaging – which requires more complex structures than standard films. This includes special laminating films with a thin sealing layer. The existing Tropic lines were reaching their limits in this regard.

“In addition, we received more enquiries for recyclable PE mono-material structures and for thinner films that perform just as well or better than the films being replaced, despite downgauging,” he said.

Barrier production

Separately, Reifenhäuser's latest Evo Ultra die heads were showcased by Smurfit Westrock at an open house event in Spain recently. The dies are designed for barrier film production exceeding 1,000 kg/h on blown film lines.

A highlight of the event was the output of over 1,000 kg/h for barrier applications, delivering films with properties including a profile accuracy of better than $\pm 3\%$ at a thickness of 70 microns. This helps to ensure that the thickness of the expensive EVOH barrier layer is closely controlled – which minimises material costs. The final film is recyclable,

Main image:
Smurfit Westrock is using Evo Ultra Die 7 heads from Reifenhäuser to make barrier film

Right: Vivion 8210XT raises the stiffness of polymer substrates to improve metallisation

because the EVOH content is below 5%.

To ensure the film's high tolerance – even at high throughput rates – the line combines the new Evo Ultra die head with the matched internal bubble cooling system Evo Cool and Kdesign cooling ring technology.

"The results of the new seven-layer blown film line with the Evo Ultra Die 7 exceeded our expectations," said Pascual Martínez Pérez, managing director of Smurfit Westrock Spain. "No other supplier achieves the nominal outputs we have achieved."

Smurfit Westrock tested and optimised the die and extruder technology in advance at Reifenhäuser's technical centre. It now operates three Reifenhäuser blown film lines at this location.

"The film quality is exceptional," said Martínez Pérez. "In addition to tolerance values, its consistency, clarity and strength enable us to meet and even exceed our customers' requirements."

On the new line, Smurfit Westrock makes seven-layer films with barrier properties that are used – among other things – for 'bag-in-box' packaging. If needed, production can be quickly switched to five- or three-layer film. Despite the large geometry and high volume of the die head, fast changeover times are ensured, says Reifenhäuser.

Bernd Reifenhäuser, CEO of Reifenhäuser, said: "Every major step we've taken in this partnership started with one question: what creates the greatest value for Smurfit Westrock? This demonstration is a perfect example."

BOPP boost

Packaging specialist **Oben** is to acquire a new 12m biaxially oriented polypropylene (BOPP) film production line from **Brueckner**, for the Brazilian market.

The investment addresses the increasing need for large-scale manufacturing capacity in Brazil, said the company. With an annual production capacity of around 94,000 tonnes, the new line will expand the company's output.

"This investment is another important milestone in our growth strategy and strengthens our ability to deliver innovative, high-performance packaging solutions to customers," said Nikolas Zaidan, CEO of Oben.

The new line is part of a broader global expansion plan, following an announcement in February 2025 regarding the acquisition of another 12m BOPP line for Mexico.

Barrier boost

German distributor **Dreyplas** is offering Vivion – a

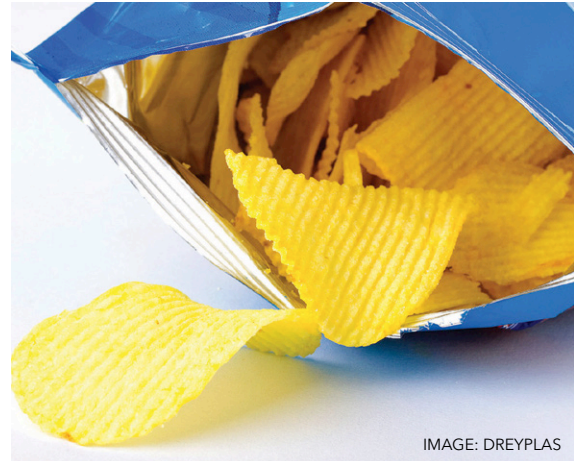


IMAGE: DREYPLAS

new family of cyclic block copolymers (CBCs) from USI Corporation – which can be used in barrier applications.

All grades provide low density, high transparency, low water absorption and a low amount of extractables. Depending on the microstructure, mechanical properties range from rigid to soft. It can be used as a separate layer in multilayer films or as a blend partner with PE or PP. Applications range from film capacitors to packaging for food and medical devices.

Vacuum-metallised cast films are often used in multilayer packaging thanks to their high barrier properties. However, the relatively low stiffness and strength of pure PE or PP substrates can cause cracks to form in the ultra-thin metal layer applied to them. This allows oxygen and moisture to penetrate the packaging, reducing the shelf life of the contents.

Blending with Vivion 8210XT raises stiffness without compromising flexibility, to cut the risk of cracking. This may allow for the use of more material-efficient films with lower thicknesses. In addition, the CBC can be used to optimise the film's tear propagation resistance – an important convenience feature for easy-open applications.

Nine-layer MDO

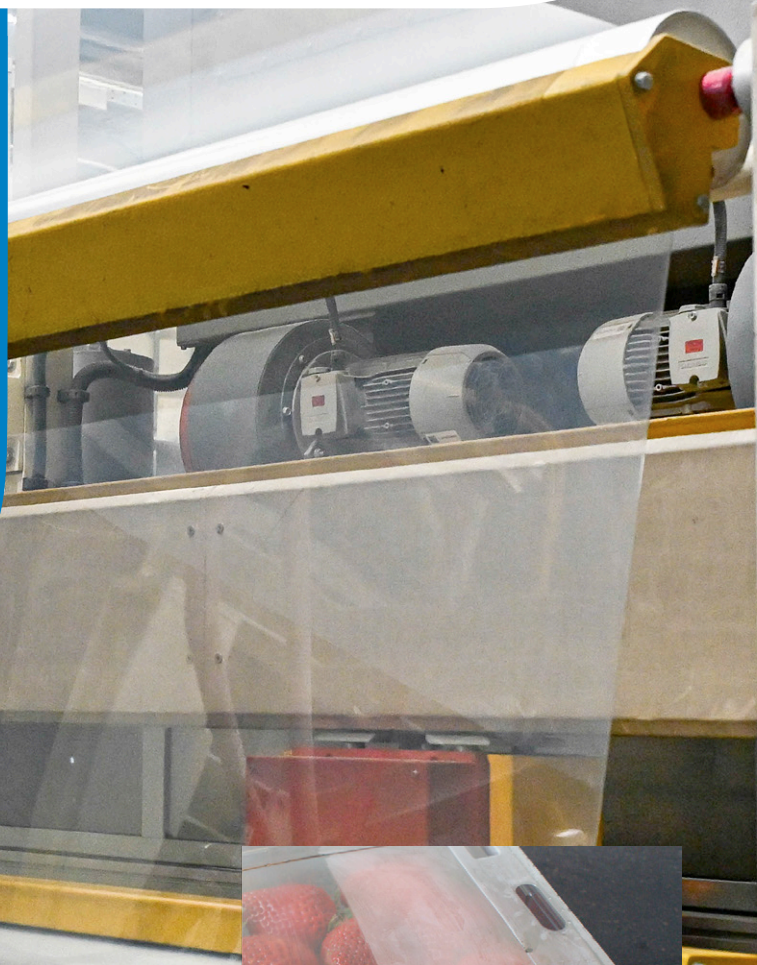
US-based **Charter Next Generation** (CNG) has expanded its manufacturing capabilities with new nine-layer and five-layer extrusion lines equipped with machine-direction orientation (MDO) technology.

CNG says this increases its capacity to deliver high-barrier, recycle-ready films at scale, helping to transition away from mixed-material structures. The films are aimed at dry goods, pet food, confectionery and speciality applications.

"The addition of nine-layer MDO technology unlocks advanced barrier performance in recycle-ready films, giving brands the clarity, stiffness and

Improving plastic sheet and rigid food packaging

Anti-block, anti-static and anti-fog solutions



Improve your production processes with our additives

Our advanced anti-block, anti-fog, and anti-static technologies provide seamless solutions for a variety of production environments. Our anti-block additives reduce friction and smooth the surface of PET sheet ensuring flawless production. This allows for easy printing and labeling on thermoformed packaging without any issues. Our anti-fog solutions keep packaging, even transparent ones, clear in various temperature conditions. Additionally, our anti-static options prevent static charge buildup on polyester sheet.

Ready to optimize your operations? Contact us today to discover how our anti-block, anti-fog, and anti-static solutions can improve your performance and reliability.



Top: Partly coated with anti-fog



Bottom: Stacked packaging, coated with anti-block

Van Meeuwen Additives
More impact with less

PLASTICS EXTRUSION WORLD **EXPO** **NORTH AMERICA**

NOVEMBER 11-12, 2026 // CLEVELAND, OH

SOURCE NEW SYSTEMS, TECHNOLOGIES AND SOLUTIONS

REGISTER FREE TODAY >

- ◆ 4 CO-LOCATED SHOWS
- ◆ 4 CONFERENCE THEATERS
- ◆ 275+ EXHIBITORS



CO-LOCATED WITH:

 **COMPOUNDING**
WORLD **EXPO**

 **PLASTICS RECYCLING**
WORLD **EXPO**

 **POLYMER TESTING**
WORLD **EXPO**

BOOK YOUR BOOTH TODAY: LIMITED PRIME LOCATIONS REMAIN!

protection they need without relying on non-recyclable materials," said Aaron LaPointe, senior principal engineer at CNG.

Earlier this year, the company introduced its matte MDO-PE print film, which it says is one of the industry's first to integrate a premium matte aesthetic directly into the material and eliminates the need for secondary coatings or overprint varnishes. This film offers a turnkey solution that delivers both shelf appeal and a recycle-ready design in a mono-material structure, says CNG.

James Rosenberger, product manager of sustainable solutions at CNG, added: "Elevating our barrier capabilities with MDO technology reflects both immediate customer needs and our commitment to advancing sustainable packaging."

Lab-scale innovation

Ingenia Polymers has installed a seven-layer blown film laboratory line from **Macro Engineering** at its innovation centre in Brantford, Ontario.

The line consists of seven 1.25in extruders, paired with Macro's proprietary blown film die and air ring technology that can produce film widths of up to 500mm (20in). The system is equipped with a 24in wide Macro Automax surface winder capable of producing rolls up to 12in in diameter.

Ingenia says the new lab-scale system expands its ability to develop, evaluate and optimise

multilayer film structures while accelerating material innovation and product development.

"The installation reflects a shared commitment to drive innovation in polymer development and strengthen Canada's leadership in multilayer film technology," said the companies.

Fish film

Suedpack says its SkinPro and Multifol Extreme films can be used to package fish and seafood products.

This can be challenging because fish products can be delicate, have high moisture content and have sharp edges (such as shellfish).

SkinPro is a new generation of films with good-quality optics for demanding seafood applications, it says. Developed specifically for shrimp skewers, salmon fillets and whole fish, it is a visually appealing vacuum skin packaging system using a skin top web and matching bottom web. The thin top web wraps around the product and can handle even protrusions, sharp or pointed contours and extreme undercuts. It is

held securely on the bottom web, preventing juicing and allowing flat, upright or hanging presentation. Most importantly, it extends shelf life by removing oxygen.

Multifol Extreme combines high functionality with minimal added weight, ideally suited to MAP and vacuum packaging of fatty, protein-rich or

Left: SkinPro is Suedpack's new generation of films with high optics, for seafood packaging



IMAGE: SUEDPACK

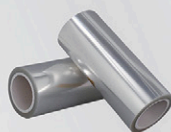
PLISHI Creating Wonderful Applications of Conductive Liquid

Applications



Touchscreen Gloves

G3 —
water-based
CNT



Solvent-based Carbon O# —

Solvent-based SWCNT

Internal-addition antistatic release film/ protective Film, No primer required.

Release Film / Protective Film

SAIRI T-600 — Thermally Curable Antistatic Anchoring Agent.

Resistance(Ω): 10E6-10E9



Plastic Sheets

G6 Pro
Water-based SWCNT



TEL: +86 13587348088

E-mail: admin@plstang.com

http://www.plishi.com.cn/

sharp-edged products. The film is also around 30% lighter than conventional PA/PE structures. Without any compromise on product protection, 150-micron Multifol Extreme can replace a conventional 200-micron thermoforming film, it says. More material savings can be made by combining a Multifol Extreme base film with a lidding film from the same product family.

Nano benefits

US-based **Peak Nano** has begun using its Nano-Plex metamaterials technology to design a new type of barrier film.

The project is receiving financial support from the Greater Akron Polymer Innovation Hub. It aims to replace traditional multi-layer packaging film, which can be difficult to recycle. Peak Nano's equivalent films are nano-layered and biodegradable.

The films contain thousands of polymer layers, allowing several polymer characteristics can be combined in one material. The coextrusion and biaxial orientation processes also boost oxygen and moisture resistance.

"With NanoPlex, we can create nano-layers for characteristics like barrier performance, mechanical strength and even degradability," said Michael Ponting, chief scientific officer at Peak Nano. "We can now design biodegradable nanolayer structures that give converters the barrier and mechanical properties they need."

In the current phase, Peak Nano and partners will produce prototype biodegradable nanolayer film systems and evaluate them on commercial equipment used for food and medical packaging. Later phases include biodegradability testing, cost and scale-up modelling, and a commercialisation roadmap for supplying nanolayered biodegradable films commercially.

Oil pouch

TotalEnergies has joined forces with **Windmüller & Hölscher** (W&H) to develop a pouch to package oil and lubricant. It features a recyclable PE/PA multi-layer structure made of PE from Total's Lumicene and Lumicene Supertough ranges. It also incorporates 35% recycled polymer, thanks to the use of Total's rPE 2206, a mechanically recycled post-consumer grade.

Using Aquarex water-quenching technology, the new pouch achieves a thickness of 170 microns – an 83% reduction in material use compared to the standard 1-litre HDPE rigid container that is typically 1mm thick.

The innovation builds on a previous collaboration, which showed the feasibility of a recyclable high-barrier stand-up pouch for food applications. The pouch was seen at K2025, while the films were processed during W&H's in-house expo.

"This shows our integral approach to polymer development," said Olivier Greiner, vice president of polymers for Europe & Orient at TotalEnergies. "We rethink the use of plastics by designing recyclable materials, reduce their impact by

reducing thickness, and foster circularity by integrating recycled polymers."

Torsten Schmitz, managing director of extrusion at W&H, added: "This pouch is a tangible example of two megatrends: designing packaging for recyclability; and integrating recycled materials into new products."

W&H also showed a range of MDO-PE packaging at Interpack this year, including a frozen food pouch for extreme conditions, packaging with printed or extruded barriers, and a 35% PCR

stretch film.

"MDO still has the reputation of being difficult," said Schmitz, adding that many film-producing companies have explored MDO in recent years but "not taken the final step".

"We have worked intensively on MDO and have made its handling increasingly simple, reliable, and economical," he said. "Customers who have taken this path with us are producing MDO films today."

CLICK ON THE LINKS FOR MORE INFORMATION:

- > www.tropicplastic.co.za
- > <https://reifenhauser.com>
- > www.obengroup.com
- > www.brueckner.com
- > <https://cnginc.com>
- > www.ingeniapolymers.com
- > www.macroeng.com
- > www.dreyplas.com
- > www.suedpack.com
- > www.peaknano.com
- > www.totalenergies.com
- > www.wuh-group.com

Right:
TotalEnergies
and W&H have
developed a
pouch to
package oil
and lubricant



The search continues for alternative plasticisers

Work to replace DEHP and other phthalate plasticisers is focusing on bio-based sources, writes Chris Saunders. But switching to alternatives is not straightforward

IMAGE: SHUTTERSTOCK



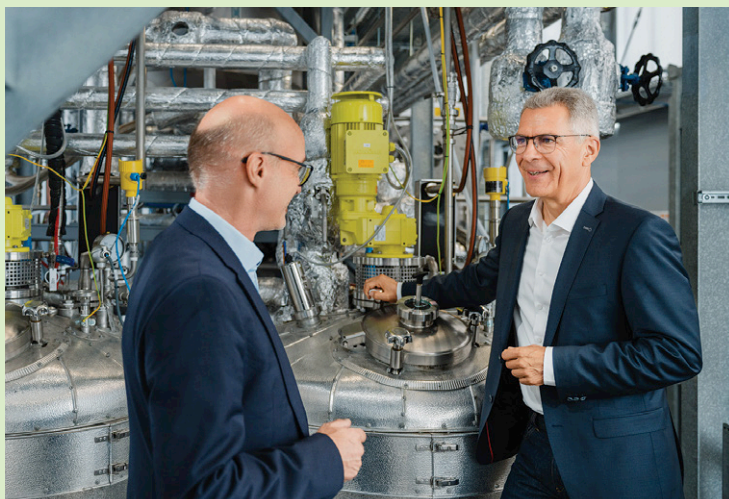
The utility and versatility of flexible PVC has seen the plasticiser landscape undergo a significant transformation in recent times as additive producers try to balance several powerful forces, including regulatory scrutiny, sustainability targets, and demand for higher-performance formulations.

According to a report by Research and Markets, the plasticisers market size grew from \$98.62bn in 2025 to \$106.19bn in 2026 at a compound annual growth rate of 7.7%, with the growth predicted to continue on a similar trajectory until reaching a value of \$147.5bn in 2030. This can be attributed to rising demand for next-generation additives, growth in cable and electronics manufacturing, expansion of infrastructure projects, advancements in bio-based plasticisers, and increased adoption in consumer goods.

"Plasticisers [are under scrutiny] because under certain conditions small amounts can migrate from the flexible PVC compounds, especially considering that some legacy ortho-phthalates were shown to potentially cause adverse health effects, while replacement of any plasticiser is strongly dependent on the uninterrupted supply of cost-effective product grades and demonstrate reduction in health and/or environmental risks," said author and consultant Peter Frenkel, who contributed to *The PVC Handbook* (2nd edition, Hanser Publications, 2025).

Demand arising from replacing DOP (DEHP) plasticiser – which has been banned from use in consumer goods and toys in Europe – has been met with the three primary plasticisers DOTP, DINP, and DIDP. "It requires massive regulatory data development and changes in the supply chain," he

Main image:
R&D has focused on natural products such as soybeans as sources for new plasticisers



Experts from Fraunhofer IVV, Dr Martin Schlummer (left) and Dr Andreas Mäurer (right,) are implementing a solvent-based recycling process in industrial plants

Getting plasticisers out with solvent recycling

At K2025, the Fraunhofer Institute for Process Engineering and Packaging IVV demonstrated how dissolved impurities such as flame retardants, plasticisers, degradation products and odours, can be separated by specific solvents, resulting in high-purity recycled plastic. Solvent-based recycling is a physical process and an effective alternative to chemical recycling because the polymers are not degraded and polymerisation from chemically recycled raw materials is not necessary.

A cleaning efficiency of up to 99.8% has been achieved for both highly volatile and medium-volatile contaminants, while a large-scale pilot plant is available at the Fraunhofer IVV to scale up solvent-based recycling to an industrial scale and to produce quantities of recyclate for industrial application tests.

Fraunhofer IVV has already successfully implemented the integration of the recyclates obtained into flexible monomaterial packaging for food on a technical scale and realised a recyclate content of up to 30% in the developed packaging structure. "We also adapt the recycling process specifically to plastic composites," said Andreas Mäurer, head of process development for polymer recycling at Fraunhofer IVV. "This allows us to recycle battery housing from vehicles as well as coated and lacquered textile and plastic materials. We also recycle PVC floor coverings and effectively separate the unwanted plasticisers. The recovered PVC material meets the requirements of EU legislation (REACH) and can be used for the production of new PVC flooring."

Packaging is another target area for the solvent recycling process. In flexible monomaterial packaging for food recyclate content of up to 30% was incorporated. In personal and healthcare packaging, these recyclates have been used up to a proportion of 62%. In the general non-food sector, up to 100% recyclate content has also been used successfully.

said. "The low molecular weight fast-fusing phthalates have been replaced for most part with phthalate-free dibenzoates."

Frenkel continued: "This substantial re-examination of the conventional phthalate has also opened the door to bio-based plasticisers produced from renewable feedstocks. Development and market introduction of commercially viable bio-based plasticisers was a response to the market need not just for cost-performance competitive but also more sustainable plasticiser grades of reduced hazard profile compared to the conventional petroleum-based plasticisers."

Wary of exacerbating confusion surrounding use of interchangeable terms like 'phthalate-free' and 'non-phthalate,' an increasing number of companies like **Alphagary** are providing improved transparency on Technical Data Sheets and Safety Data Sheets around reportable phthalate content so that customers are able to make informed decisions about material choice. Flexible PVC compounds plasticised with DOTP (dioctyl terephthalate), adipate, trimellitate, and bio-based citrate rather than restricted phthalates are available from Alphagary under the brand name Mexiflex. The company produces plasticisers at its facility in Altamira, Mexico, where vertical integration allows flexibility within the supply chain.

DEHP is still in use in the medical sector in applications such as flexible PVC tubing where its performance is not replicated in alternatives. This poses challenges for medical device manufacturers deciding whether to apply to continue using DEHP or switch to non-phthalate plasticisers, as described in a recent LinkedIn post by John Zawacki, senior director, strategic marketing, **TekniPlex Healthcare**.

Switch from DEHP

"The DEHP-to-alternative transition is one of the most consequential material decisions many OEM engineering teams will make in the next three years, and it's not elective," he said. "Under REACH Annex XIV (EU Regulation 2023/2482), manufacturers must submit DEHP authorisation applications by January 2029, with the sunset date now set for July 2030. That window sounds long until you factor in feasibility testing, extractables/leachables characterisation, biocompatibility re-evaluation, and change-control timelines. What device engineers should also know [is that] TOTM, DINCH, DOA, and ATBC aren't interchangeable drop-ins. Each produces a meaningfully different compound profile: different durometer response, different low-temperature performance, different migration behaviour, and in some cases, different sterilisation

compatibility. Getting the replacement right the first time is faster and less expensive than correcting a validation failure at scale."

Several bio-based primary plasticiser grades of high efficiency have been successful and viable on the commercial scale, according to consultant Peter Frenkel. Use of bio-based plasticisers in flexible PVC applications has benefited their carbon footprint, but also enhanced certain performance attributes, such as extractability, smoke generation, heat stability and low temperature flexibility, he said.

Development of new plasticisers has involved research into alternative chemistries, with several the subject of peer-reviewed research studies. A study titled New Biobased Plasticisers for PVC Derived from Saturated Dimerised Fatty Acids, which was first published in the journal *Materials* in May 2025, explores the use of bio-based oligoesters as a non-toxic and harmless alternative.

"New plasticisers were obtained by polyesterification of saturated dimerised fatty acid (DFA), adipic acid (ADA), triethylene glycol, and 2-ethylhexanol (2-EH), and were characterised by nuclear magnetic resonance, size exclusion chromatography, and viscosity analyses," said the study, written by

researchers at **Silesian University of Technology** in Poland. "The compatibility of the obtained oligoesters with PVC was determined using the method for obtaining PVC films by casting from a THF solution. Selected plasticisers were used to obtain PVC blends at 50 phr. They were then tested for plasticiser migration, hardness, thermogravimetric analysis, differential scanning calorimetry, and mechanical strength. Their properties were compared with the commercially available monomeric plasticisers di(2-ethylhexyl) terephthalate and di(2-ethylhexyl) adipate."

The study concluded that oligoesters obtained at a molar ratio of ADA to DFA of 9:1 and using an excess of 2-EH exhibit very good compatibility and plasticising ability while the use of higher amounts of DFA worsens the compatibility of the oligoesters with PVC. However, a 4:1 ADA-to-DFA molar ratio produced results that still allow for the use of these compounds as plasticisers at lower concentrations or in combination with other plasticisers.

Bio-based solutions

Many recent studies have focused on bio-based plasticisers derived from vegetable oils, with the



in partnership with
ROBEL

Since 1987

PVC BLOWN FILM EXTRUSION LINES

BG Plast designs PVC blown film extrusion lines in collaboration with ROBEL, engineered to ensure stable bubble control, consistent film thickness and high-quality production for flexible technical applications.

Key feature:

- Stable and controlled bubble formation
- Uniform film thickness
- Excellent flexibility and transparency
- Good mechanical resistance
- Reliable winding and film handling
- Ideal for technical and flexible PVC films

Applications



Technical
PVC films



Food wrapping
applications



Right: Inbra, Varteco and Innoleics, have formed a collaboration to accelerate the adoption of bio-based plasticisers

aim of offering sustainable alternatives to phthalates. Feedstocks include epoxidised linseed oil and epoxidised soybean oil, although production of renewable resources must be carefully controlled as it could have significant social and economic consequences, especially when competing with food production. Intensive soy monoculture also requires substantial industrial chemicals such as fertilisers and pesticides, as well as the need to replant every year, and contributes to deforestation.

Research has also focused on cashew nut shell liquid (CNSL), a non-edible by-product of cashew processing contained in the porous lattice structure of the cashew nut shell. Although the shell is an agricultural waste product, CNSL is one of the richest natural sources of phenols, consisting of four substituted phenols (anacardic acid, cardanol, cardol, and 2-methylcardol). Cardanol-based compounds derived from CNSL have been earmarked for use in bio-based plasticisers for PVC and are considered a promising alternative to phthalates due to their unique natural structure, which is similar to that of phthalates.

A study by a team at University of Montpellier in France evaluating the feasibility of utilising technical CNSL (80% cardanol and 20% cardol) as a PVC plasticiser was published last year in the *European Journal of Lipid Science and Technology*. During the testing phase, various plasticisers were synthesized from pure cardanol or technical CNSL through esterification and epoxidation to enhance compatibility. The research revealed the influence of epoxy on the physicochemical properties of PVC films.

To summarise, epoxidation increases the thermal stability and the viscosity of the plasticiser, and also results in an increase in elongation at break. Moreover, epoxidation improves thermal stability by introducing oxirane which captures HCl, and also increases the chemical resistance for CNSL derivatives and volatility, which are sought-after properties in themselves. Epoxidation proves to be a valuable way to boost the plasticising properties of the compounds, even for those with long alkyl chains, according to the study's writers.

Importantly, this work demonstrated that technical CNSL, without purification into pure cardanol, can be effectively used as a precursor for PVC plasticisers. The study concluded by stating: "Performances observed for technical CNSL-based plasticisers are comparable to, and in some cases even superior to, those reported for pure cardanol-based plasticisers in the literature. Thus, the purification step of cardanol can indeed be skipped, allowing for a simpler, more economical, and more sustainable process."



IMAGE: VARTECO

Other companies also see the potential for bio-based plasticisers in Europe. **Inbra, Varteco, and Innoleics**, have formed a collaboration to accelerate the adoption of sustainable, bio-based plasticisers with an initial focus on the Benelux region. Building on more than 18 years of industrial success, Brazilian chemical company Innoleics says its technology encompasses a full portfolio of primary bio-based plasticisers designed to replace materials such as DINP, DOTP, and TOTM, delivering equal or superior performance while maintaining competitive cost. The new partnership leverages the combined production capabilities of Inbra and Varteco, with facilities located across the world's three major soy producing regions, ensuring reliable supply, consistent quality, and scalability for European customers.

In addition, Varteco provides technical and commercial support, assisting customers in product validation, formulation optimisation, and industrial implementation. Together, the trio of companies hope to expand a technology platform that they say has already demonstrated commercial performance in other regions, creating new opportunities for compounders, converters, and brand owners. The initiative also aligns with global decarbonisation efforts, contributes to carbon footprint reduction, and advances the sustainability profile of flexible PVC applications by transferring expertise accumulated by all three companies.

CLICK ON THE LINKS FOR MORE INFORMATION:

- > www.alphagary.com
- > <https://tekni-plex.com>
- > www.polisl.pl
- > <https://inbra.com.br>
- > <https://innoleics.com>
- > www.varteco.com.ar
- > www.ivv.fraunhofer.de

Feeding time: latest in materials handling



Many new conveying, feeding and blending systems have hit the market recently - many of them at K2025 last year - to make materials handling more efficient

Materials handling equipment - including feeders, dryers, blenders and dosers - is vital to prepare material for its entry into the extruder. After K2025 last year, converters have plenty of choice if they need to upgrade.

Blue Air Systems says its BBX offers energy savings of 50-70% compared to conventional hot-air pellet dryers. It uses dry process air to convert conventional pellet dryers, which it says can help plastics processors improve profitability. It is available with new systems, or can be retrofitted. Conversion is simple as existing pellet hoppers remain in use. Only the drying unit is replaced with the compact BBX dryer module. Blue Air Systems has filed a patent for it.

The main energy savings come from the drying method used. Unlike conventional strategies, it needs no regeneration energy. The dryer not only enables a constant dew point without fluctuation, but also needs no cooling water or molecular sieve during operation. It only requires an air filter change after a long period of use. The compact modules can be used for a range of hopper sizes up to 10,000 kg/h, for PET applications up to 1,000 kg PET/h as standard. Installation is straightforward

thanks to a plug-and-play design and can be completed in one day.

"We see a very high potential for retrofitting installed drying systems with the BBX module for energy-efficient drying," said Bernhard Stipsits, managing director of Blue Air Systems.

Bulk materials

Bird Machinery unveiled its latest advances in heating and drying at K2025. The company makes compact infrared rotary drum (IRD) devices to treat bulk materials, including pellets, regrind, flakes, and powders. This makes the technology accessible for smaller throughputs.

The technology claims to offer advantages over conventional hot-air drying methods for bulk materials, including: 90% time savings; up to 70% in energy savings; and fast changeover times, for high flexibility.

"We have adapted IRD technology from large-scale plants for smaller throughputs, allowing injection moulding to benefit from the advantages of infrared heating," said Urban Stricker, the company's founder.

For common materials such as PA, PC, PMMA

Main image:
Motan's S-Dry 40/80 is a dehumidified air dryer range with multiple bin combinations

Right: Bird 5 series IRD machines can be used to dry TPU before moulding

and ABS, the company provides standardised Bird 5 series machines. Throughput capacity is 4-100 kg/h for deep drying to specifications below 200-1,000 ppm. The drying time for this continuous process is 3-30 minutes, depending on the material and task. This saves over 90% of time and uses up to 70% less energy compared to previous drying methods, says the company. Switching to different materials is done in minutes by changing the rotary drum.

The device can also be used to dry TPU - which it says is TPU difficult to process due to its high sensitivity to moisture and narrow processing window. IRD can simplify this. In ongoing trials, Bird Machinery is testing a polyether-based TPU with Shore 85A, which is commonly used in injection moulding.

Rotary drum

Kreyenborg showed both a continuous system and a batch version of its infrared rotary drum (IRD) at K2025.

To fully demonstrate the IRD, a large monitor provided a view into the interior, showing how the material in the rotating drum behaves under IR light. The company also showed mixers, special silos and extruder feeding systems.

The IRD also has a new control system. The 7- and 15in monitors have been given a graphical user interface and the software is more user-friendly, it says. Greater transparency is now possible, allowing the user to make faster, more accurate decisions during production. The new panel with the graphical software will be part of every new IRD system in the future.

Kreyenborg offers a retrofit solution for the IRD called the Eco-Booster. Heat from the IR rotary tube is used to preheat the raw material waiting to be supplied. This can save up to 10% of energy use or increase throughput of the material by up to 20%,

Kreyenborg's infrared rotary drum (IRD) has a new control system, for faster decisions

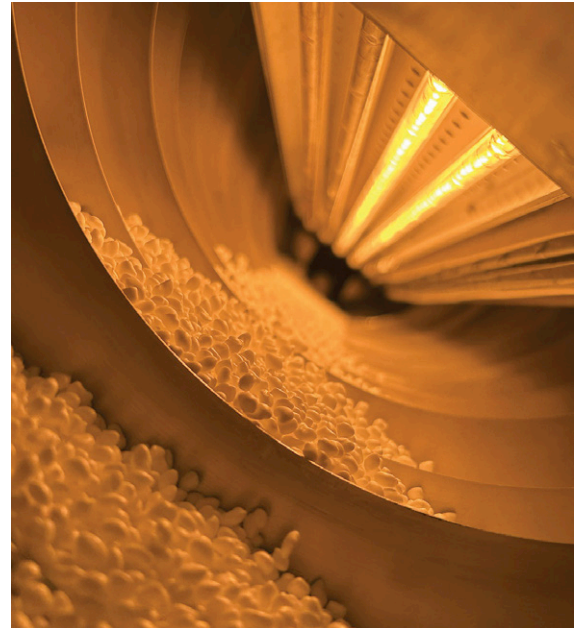
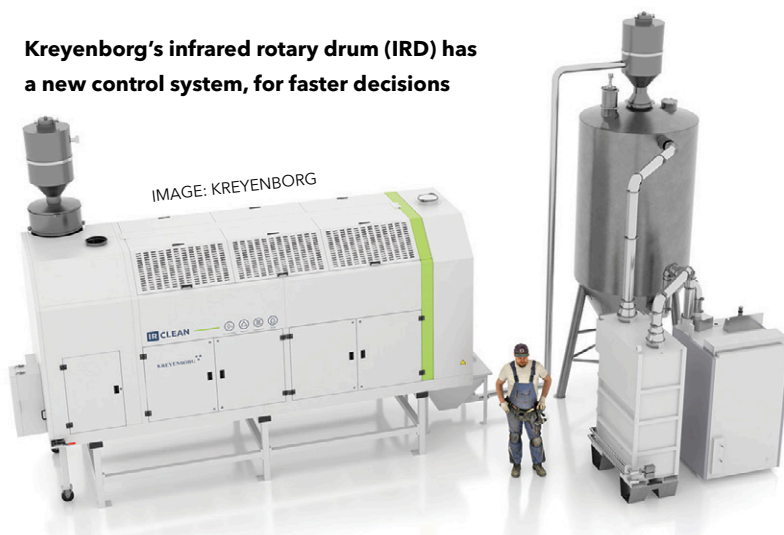


IMAGE: BIRD MACHINERY

meaning the system can pay for itself after about one year.

Harmonised line

Coperion showed an extended portfolio of feeding and weighing technologies at K2025.

The company plans to harmonise its expanded feeder product line with the Coperion K-Tron SmartConnex Feeder Control. This includes integrating the redesigned KCM-III Control Module and K-Vision Line Controller that offers a variety of connectivity options.

New additions to the Coperion portfolio include the AccuRate Series 602 volumetric feeder and the MechaTron Coni-Flex single screw feeder that is suited to either volumetric or gravimetric feeding applications. Both feature vinyl hoppers that are agitated on the exterior by two paddles. Visitors will see how the MechaTron's design allows for complete disassembly without removing upper extension hoppers, bins, bulk bags or IBS - reducing maintenance time and operational costs.

Another feeder for the plastics recycling industry is the Coperion K-Tron K3-V200 vibratory feeder that delivers high-accuracy gravimetric feeding of free-flowing fragile materials such as flakes and glass fibres. Its drive technology minimises mechanical wear and energy consumption while allowing rapid product changeovers with a quick-release tray mechanism.

In March this year, Coperion introduced the K-Tron RF400 Roller Feeder, a new solution designed to enhance the efficiency and consistency of electrode dry material feeding in battery manufacturing processes. As demand for high-performance batteries continues to surge, manu-

facturers face increasing challenges in ensuring the precise and reliable delivery of the electrode blend directly into the calendar gap in dry battery electrode coating processes.

The RF400 addresses these challenges by offering a state-of-the-art feeding system that provides consistent material distribution, reduces waste, and improves overall production efficiency by using advanced roller technology. The RF400 is perfectly suited for use in laboratory and pilot scale production environments, and integrates seamlessly with existing KCM-III controls and Smart Force Transducer (SFT) weighing technology, ensuring high accuracy and reliability.

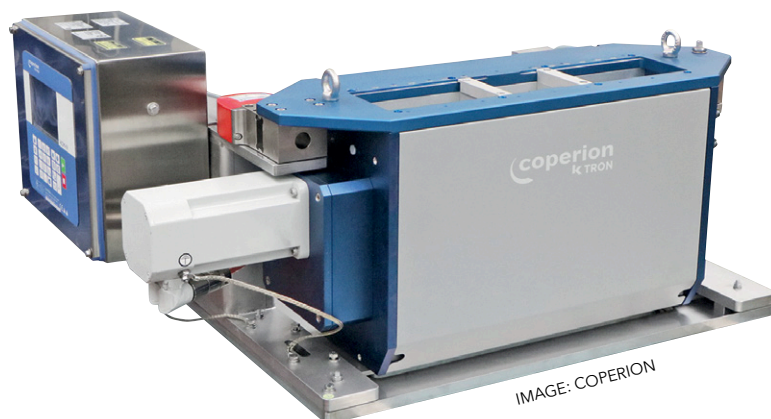
Passing through

Nitrogen closed-loop systems are gaining importance as they prevent dust or gas explosions through inertisation, to inhibit oxidation processes, such as the quality degrading yellowing of PTA, and to protect hygroscopic bulk materials from moisture ingress, which is essential for process stability, particularly in PA spinning plants.

Coperion develops customised and optimally designed solutions with the aim of generating added value for the customer, and the process design of a nitrogen closed-loop system comprises several core components.

The pneumatic conveying of bulk materials through pipes offers advantages over mechanical systems including flexible installation, low space requirements, and minimal maintenance. However, conventional dilute phase systems have limits, especially when conveying highly abrasive glass fibre pellets. These pellets are transported at high air speeds, which often leads to problems such as the formation of angel hair and wear on the pipe bends. Glass fibre-reinforced pellets with a proportion of 30% to 50% also mechanically wear down the pipe material and can lead to leaks.

A solution is also provided by Swiss group **Gericke** in the shape of its PTA pneumatic dense phase conveying system, where a pressure vessel is used as a feeding device which doses the product into the pipeline and acts as a gas-tight valve. Small product plugs are formed in the pipeline, which are gently transported by compressed air at low speed. The conveying speed is significantly reduced compared to dilute phase conveying, which minimises wear while the pressure vessel ensures gas-tight feeding and enables the conveying of abrasive or sensitive materials. The bulk material is pushed through the pipeline in compact plugs, which increases throughput and minimises the required air consumption. For longer conveying



distances, additional air nozzles can be integrated.

Many bulk material processes require defined and reproducible particle sizes. The Gericke GNB 250 Nibbler offers the advantages of the established GNB series for smaller throughputs in a compact industrial deagglomerator and coarse size reduction grinder. Despite its compact size, the GNB 250 achieves high throughput rates and can easily be installed into existing processes making it the perfect successor to the older Gericke Nibbler series NBS 200/200 and NB 300/350.

The Gericke GUC-F Universal Controller delivers precise, reliable control for feeding, dosing, batching, and weighing, combining industrial robustness with the connectivity and flexibility demanded in applications. Its modular design and intuitive interface make it the ideal solution for both new installations and upgrades while key advantages lie in its versatility and scalability. One unit can control up to four feeders, supporting both gravimetric and volumetric modes for batch or continuous production. This reduces equipment costs and simplifies setup, while its flexible architecture allows users to add additional feeders.

Power play

Late last year, **Conair** unveiled the new PowerFill Pro conveying system, which combines the essentials of a small, central conveying system (vacuum pump, dust collector, and intelligent, touchscreen control) in a compact and portable cabinet.

The successor to the PowerFill 8, the new PowerFill Pro offers more power and configurability, and new pump options to deliver throughputs up to 7,000 lbs/hr over distances up to 300 ft.

Featuring all-new control hardware and a 4-in touchscreen that incorporates Conair's common control user interface, the system serves up to eight material receivers through flexible vacuum conveying hoses, line valves, manifolds or other conveying hardware.

It can be equipped with any of four vacuum

Above:
Coperion says its K-Tron RF400 roller feeder offers a feeding system that provides consistent material distribution, reduces waste, and improves overall production efficiency

Right: MDS Balance Drydose from Movacolor and Labotek combines drying and dosing in a single unit

pump options, starting with the popular 6.2HP (4.6 kW) single-stage pump, or any of three, higher-capacity dual-stage pumps – 6.2 HP (4.6 kW), 11.5 HP (8.6 kW), or 16.9 HP (12.6 kW) – to meet greater throughput and distance requirements. All pumps are driven by three-phase direct-drive, brushless motors that require no oiling and have no belts to maintain. An optional idle-mode valve allows the vacuum pump to continue running at idle speed between loading cycles to reduce the number of stop-start cycles and prolong pump life. All units also include enlarged dust filters.

Retrofit options

Kubota Brabender Technologie presented a range of retrofit options at K2025, to help various feeding systems maintain performance.

It says the retrofits can raise efficiency and productivity, while meeting new safety standards and adapting to new products. In addition, this minimises costs and downtime, extends machinery service life, and ensures sustainability by conserving resources.

The company also showcased its new Congrav OP-M control system, which allows the operation of up to six gravimetric feeders. A 7in touchscreen colour display makes configuration, control, and parameter settings straightforward, while supporting diagnostics and maintenance. With a 20-160 degree viewing angle, the screen remains clear and easy to read from nearly any direction.

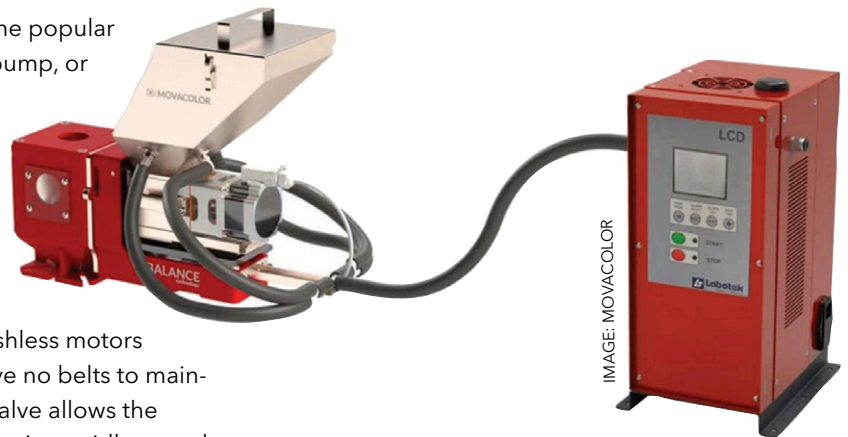
Dosing and drying

Movacolor has joined forces with Labotek to develop the MDS Balance Drydose, which combines efficient material drying and precise additive dosing in a single unit.

It accommodates the need to dry additives due to increasing quality requirements, materials of biological origin, speciality engineered plastics, and the need to further reduce quality risks.

By drying materials directly within the dosing unit at the machine inlet, Drydose ensures optimal moisture control and removes the need for extra equipment. This enhances product consistency, reduces waste and energy consumption, and improves overall production efficiency, it says.

Movacolor has also developed MovaLink, its solution to integrate full control of its equipment into a production cell control system. MovaLink is display-less and features all industry standard



control interfaces such as ProfiNet and OPC-UA. The stainless-steel casing can be placed inside a cabinet, keeping the setup clean. Designed mainly for machine builders and system integrators, it reduces complexity and raises operational efficiency, says the company.

High feed rate

Qlar presented its Simplex FB loss-in-weight feeder at K2025. The gravimetric stainless-steel feeder has a high feed rate and can be used to dose a variety of materials – from glass and carbon fibres to plastic flakes, cellulose and other new or recycled materials, it says.

“The Simplex FB shows its particular strengths when handling post-consumer material,” said Frederik Hanß, head of sales for chemicals and performance materials for EMEA at Qlar. “Thanks to the bottom-driven agitator and the low centre of gravity, even regrinds or plastic flakes that are difficult to dose can be processed.”

An integrated sensor system allows data to be collected and transmitted in real time. This enables fill level measurement and bridge detection as well as moisture measurement of the material. Possible blockages in the discharge are recognised at an early stage – and jammed material can be removed before a major backlog occurs. Depending on the speed and filling level, optimum operating values for different materials can be determined and saved.

Micro blending

Also at K2025, **Moretto** extended its range of blenders for micro-dosing of plastics with its DGM Gravix 50. Using SMD electronic control, the digital technology increases the performance of the self-adjustment algorithms, says the company. In addition, the weighing system performs high-speed sampling, ensuring that information is processed through self-learning functions.

A unique feature of the system is the double

eyelid device, which has a reaction time of 25ms to ensure accurate dosing. The Rotopulse technology evolves for micro-dosing by means of a pulse system, down to a tenth of a gramme in the dosing of masterbatch.

Its range of X Comb mini dryers has also expanded with the new XC19 model, which is suitable for processing technical polymers at up to 60 kg/h. Distinctive features include the Honey-comb technology in 100% zeolite with high absorbent capacity, OTX hopper and Hyper Flow turbo compressors with variable flow.

Core advances

Some suppliers showcased a range of materials handling solutions at K2025 last year – with **Maguire** presenting advances across its four core product groups: drying, blending, feeding, and connectivity.

“Each innovation delivers measurable savings, increased uptime and advanced process control, empowering our customers to improve their performance and ROI,” said Frank Kavanagh, global vice president of sales & marketing at Maguire.

One highlight, the Gen 4 Ultra Vacuum Dryer, introduced a streamlined touchscreen interface and expanded portfolio. New variants Ultra 150E, 300E, and 300+ extend throughputs to 165, 285, and 440 lb/hr (75-200 kg/hr), filling critical capacity gaps for PET and extrusion applications. All Ultra models feature Maguire’s 15-minute Pit Stop material changeover capability, slashing downtime from hours to minutes and delivering average energy savings of 60% against desiccant dryers.

Maguire also highlighted its first gravimetric blender, the WSB 280MP, featuring eight removable hoppers for rapid changeovers, easier cleaning and added dosing flexibility.

At the core of Maguire’s integration strategy is Fusion, a control platform that unites blenders, feeders, conveying and extrusion control within a single, intuitive touchscreen interface. During the show, Fusion was displayed with live conveying and extrusion control, showing how a single controller streamlines operations and reduces scrap. The system featured a WSB 140 MP blender, MGF+2 feeders, FlexBus Lite conveying controls, Clear-Vu receivers, and real-time extrusion stabilisation, delivering a “total-control” experience for proces-

Plast^{35 years} Eurasia

INTERNATIONAL İSTANBUL
PLASTICS INDUSTRY FAIR

December
2-5,
2026

35 Years
Where
Connections
Become Trade

Free tickets for
a limited time

CODE:
AZMTHI



www.plasteurasia.com



At K2025, Maguire presented a comprehensive display of its drying, blending and feeding products

sors seeking greater automation, material traceability, and equipment performance data.

Swift response

In similar fashion, **Motan** exhibited several new offerings from its Swift range of ancillary products, along with solutions to automate extrusion.

The Swift series covers the entire materials handling product range, from dosing and mixing to drying and conveying. Highlights included: S-Dry 40/80, a compact dehumidified air dryer range with multiple bin combinations that is focused on energy efficiency; S-Compact, which includes integrated conveying and optional control of an additive dosing unit; S-Convey HES, a single-phase material loader for granulates with intelligent control for demand-based material supply; and S-Color V, an additive dosing and mixing unit for masterbatch and regrind dosing applications.

In addition, its Gravicolor 110 Med and Metro G Med are designed for pharmaceutical and medical plastics processing. They comply with FDA standards and guarantee maximum process reliability for sensitive materials.

CLICK ON THE LINKS FOR MORE INFORMATION:

- > www.blue-air.at
- > www.birdmachinery.de
- > www.kreyenborg.com
- > www.coperion.com
- > www.gerickegroup.com
- > www.conairgroup.com
- > www.kubota-bt.com
- > www.movacolor.com
- > www.qlar.com
- > www.moretto.com
- > www.maguire.com
- > www.motan-group.com

Overcoming wrong loading procedures

When processors find imperfections in their material stream, they typically blame a faulty batch.

However, the problem is often caused by improper unloading practices. This can lead to several common issues, including:

- Angel hair – thin resin streamers created when pellets experience excessive heat, friction or air velocity during unloading;
- Snakeskin – thin, textured resin layers formed inside transfer lines by repeated smearing and softening, which later break off and cause clogging; and,
- Dust – microscopic particles generated when pellets abrade against each other or the inside of transfer hoses.

“This can cause blocked filters, fouled sensors, inconsistent material flow and unplanned shutdowns,” said Brandon Phan, a blown film technical service engineer at **Shell Polymers**.

Following best practice can minimise friction, static, and heat during unloading, he says.

Keeping airflow in check is critical – with a maximum air velocity of 4,600 feet per minute in vacuum systems or 4,200 feet per minute in pressure systems.

Using grounded, clean, preferably stainless-steel hoses reduces static buildup and internal abrasion. Aluminium and plastic are more prone to charge buildup and internal wear.

Minimising hose bends and length helps reduce turbulence, a major cause of fines and streamers. If possible, hoses should be suspended off the ground with minimal curvature, ensuring a smooth flow path for the resin.

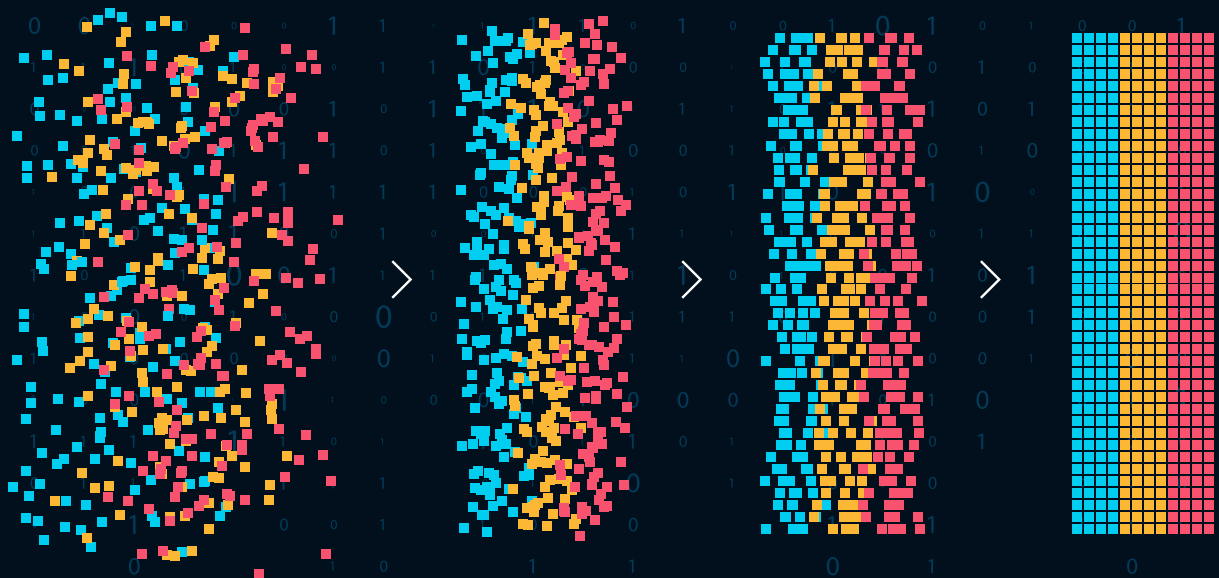
And, in warmer climates, unloading during cooler hours – and avoiding sun-exposed metal pipes – can reduce heat-related pellet softening.

“In addition, maintaining clean transfer systems is as important as proper technique,” he said.

“Cross-contamination from residual product in lines or poorly cleaned railcars is a leading source of pellet degradation and product variability.”

> www.shell.us

Assessing AI and new trends in masterbatches



Masterbatches provide processors with additives or pigments (colours, blacks, and whites) in a format that is easier to handle, dose, and disperse compared to neat materials, which can include powders that require special handling. Masterbatch and concentrate suppliers also keep a close eye on what their customers require to keep up with trends in their end-use markets as well as to make their thermoplastic compounds or parts efficiently.

Packaging (both rigid and flexible) continues to be the largest market for concentrates, said AMI Consulting in a keynote address on trends in thermoplastics concentrates at last year's North American Compounding World Expo. Smaller but important markets include consumer goods, building and infrastructure, automotive and others. Recycling – both designing formulations for recycling as well as using recycled materials – is a key driver, particularly in packaging.

Regulatory changes are a challenge that masterbatch suppliers are prepared to address. A top concern recently has been restrictions on per and polyfluoroalkyl substances (PFAS), which continue to drive conversion from fluoropolymers to alternative processing aids used as additives in thermoplastics.

Today, suppliers see increasing complexity as

Colour and additive masterbatches continue to play a key role in producing thermoplastics compounds that meet market demands. Jennifer Markarian reports on market trends

they formulate masterbatches to meet demands for sustainability, performance, and cost-efficiency as well as regulatory requirements. Innovations in additives, polymers, equipment, and processing tools support these efforts. The increased use of post-consumer recycle (PCR) globally is leading to changes in compounding.

"Our customers are facing growing challenges in balancing performance, cost, and sustainability. Our job is to help them meet these demands through smarter, more efficient additive solutions," said Asaf Eylon, president of additives & whites at **Tosaf**. "While essential for circularity, recycled polymers tend to show oxidation, colour instability, and processing variability. In parallel, compounders, recyclers, and polymer producers are looking for more efficient additive delivery systems that

Main image:
Masterbatch producers are increasingly using AI to improve their products and operations

IMAGE: GABRIEL-CHEMIE



Above: Gabriel-Chemie Group opened its expanded masterbatch production site in Hungary in October

simplify handling and improve consistency. Tosaf's One-Pack Solutions (OPS) address this need through compact, pelletised additive blends that eliminate the use of powders, improving process efficiency, reducing waste, and creating safer production environments."

"Recyclability, stability and durability are essential to sustainable performance," said Eylon. He pointed to new longer-lasting stabilisation systems that maintain colour, reduce waste, and extend product life as a shift in additive technology. Compatibilisers could become increasingly important, as compounders look to natural fibers and fillers to improve sustainability. In PET recycling in particular, additive advances include chain extenders that restore intrinsic viscosity and toners to neutralise yellowing, he noted.

Tosaf has also established a new production site in Olkusz, Poland to support efficient supply across Poland, Ukraine and Eastern Europe.

Tosaf says the 5,500 sq m facility, with an initial capacity of 3,000 tonnes/year, will support its growing portfolio of masterbatch solutions across a range of polymers and applications. As well as production, it will include an advanced laboratory.

By expanding its local production capabilities, Tosaf aims to provide customers with shorter lead times, increased flexibility and closer technical support.

"This investment is about getting closer to our customers – not just geographically, but operationally," said Iryna Maydych, managing director of Tosaf Polska Color.

Increased use of PCR

In the US, state-level recycled-content and packaging EPR rules are driving demand for PCR-compatible, food-contact compliant masterbatches and verified chain-of-custody systems, such as ISCC PLUS, said **LyondellBasell** (LYB), which supplies compounds and masterbatches.

"Customers are increasingly prioritising verified recycled and renewable content, lower carbon footprints, compliance with food-contact and durability standards and additives that maintain mechanical properties across multiple recycling cycles," said the company. "The biggest challenges lie in maintaining consistent PCR quality and odor, balancing brand colour requirements with recycling guidelines, and navigating evolving, non-harmonised regulations. Scaling circular feedstocks at a competitive cost also remains difficult. At LYB, we address these challenges through advanced polyolefin solutions and circular products designed to help customers achieve recycled-content and carbon dioxide reduction goals while supporting mono-material design without compromising material performance or processing efficiency."

New high-load LYB masterbatches offer improved dispersion at low let-down ratios and are formulated to be compatible with a high percentage of PCR material in the final formulation. Additives, such as odour neutralisers, absorbers and compatibilisers, are improving the quality of mixed-stream recycled PP and PE by stabilising flow and impact properties, LYB noted.

Hungary expansion

European masterbatch supplier **Gabriel-Chemie** recently finished a €6.5 million expansion at its Nyíregyháza production site in Hungary. The number of production lines has increased from 10 to 19, enabling an annual production volume of up to 2,500 tonnes in future. Production space has more than doubled, to 1,190m², while office, warehouse and maintenance space have also increased.

Investments were also made in energy-efficient technology, including a new cooling water system, a dust extraction system with fresh air supply, an air-source heat pump, and air conditioning in all offices. A highlight is a planned photovoltaic system with around 250 kWp, which will contribute to sustainable energy supply in the future. This is the third Gabriel-Chemie site equipped with a photovoltaic system.

"With this expansion, we have increased our capacities and laid the foundation for the sustainable development of our company," said Andreas Berger, chief commercial & operating officer at Gabriel-Chemie.

A key trend shaping the thermoplastic masterbatch industry in Europe is a growing interest in recycled and bio-based materials, which Gabriel-Chemie is supporting with additive solutions, the company said. In addition, evolving legislation and

various sustainability reporting standards require more documentation, traceability, and transparency throughout the entire supply chain.

A challenge in Europe is low-price raw materials and standard masterbatches coming from Asia

"Price fluctuations and supply instability have become constant challenges. Our answer to this is a long-term, partnership-oriented approach: ensuring stable product quality, offering specialised and customised masterbatch solutions, and maintaining flexibility in sourcing and production, while providing comprehensive support to our customers throughout the process," the company said.

Fillers and carriers

In addition to use of PCR, companies are using a wide range of fillers from sources including minerals, wood, and agricultural waste, for example, to help achieve sustainability goals. Masterbatches are used to solve the problem of dealing with dusty, poorly flowing, or low bulk density fillers. Additives, such as compatibilisers, provide further benefits when integrating incompatible materials into the mix.

Last year, **UBQ Materials** launched a masterbatch product portfolio for its circular material



Left: UBQ Materials has launched a masterbatch product portfolio for its circular material made from mixed household waste

made from mixed household waste. The new masterbatch form is in addition to its existing commercial UBQ thermoplastic composite material, produced from a manufacturing facility in The Netherlands. The company said that UBQ Masterbatch offers good handling and dispersion, cost competitiveness and a negative carbon footprint.

Suppliers have begun offering 100% PCR carrier resins for masterbatches, so that companies can achieve 100% PCR in their formulations. Bio-based

FOLLOW OUR SOCIAL CHANNELS



Get the latest plastics industry news and analysis

Be first to know when we publish a new edition

Compounding **Plastics Recycling**
WORLD WORLD

Injection **Pipe and Profile** **Film and Sheet**
WORLD EXTRUSION EXTRUSION

www.twitter.com/PlasticsWorld

<https://uk.linkedin.com/showcase/plasticsworld>

TransXL
CELEBRATING OVER 50 YEARS

In partnership with:

Nano-Trend 奈米趨勢



QUALITY USED PLASTIC PROCESSING MACHINERY - BOUGHT & SOLD



SHEET LINES



PIPE/PROFILE



THERMOFORMING



PELLETISING



GRANULATORS



EXTRUDERS



890mm x 300mm **Welex 3** roll polishing stack



1850mm wide **Davis Standard** Sheet Downstream



120mm **Battenfeld** Single Screw Extruder



4 component **Colortronic** gravimetric blender



Get in Touch

T: +44 (0)1793 827666

E: sales@transxl.co.uk

W: www.transxl.co.uk



MORE MACHINERY, MORE PHOTOS ON THE WEB
WWW.TRANSXL.CO.UK

Right: Sun Chemical presented its latest masterbatch innovations at Kuteno recently

carriers are also available, including compostable carriers.

Chroma Color, for example, launched three colour masterbatches, an orange, red, and white using a polyhydroxyalkanoate (PHA) bio-based polyester carrier resin, that complies with ASTM D-6400/DIN EN13432 standards for compostability.

Sun Chemical recently presented its latest masterbatch innovations at Kuteno in Germany. This included its Sicolen colour masterbatches for PE and PP, which it claims offer a wide colour spectrum, tailor-made formulations and suitability for diverse applications. In addition, its Sicoversal masterbatches for engineering plastics were developed for high-performance applications that require precise colour and formulation control. Finally, its Sicoplast dry blends are customised for specific processing requirements with flexible, application-oriented formulations.

"Customers need reliable partners who can deliver consistent quality, technical collaboration and speed," said Kai Sörensen, masterbatch managing director at Sun Chemical. "We support this through our strong formulation expertise, responsive technical service and access to one of the world's broadest pigment portfolios."

Digital technology

New technologies – including artificial intelligence (AI) tools, inline measurement, and advanced process control – enable faster, more efficient, and higher quality production and can help masterbatch suppliers meet performance expectations. While AI-based tools are at various stages of development and use, the trend to automation and digital systems is well underway.

"Digital systems can take over repetitive and routine tasks, enabling our teams to focus more on creative, analytical, and complex responsibilities that truly add value," said Gabriel-Chemie. "We



IMAGE: SUN CHEMICAL

also see great potential in the integration of AI into this digital transformation. While we are still in the development phase, we are exploring how AI can help recognise process patterns, support predictive adjustments, and optimise production workflows. We see particular potential in AI-assisted forecasting, predictive maintenance, and digital quality management to improve reliability and responsiveness. Looking further ahead, applications such as AI-based formulation support, inline quality measurement, or the use of large language models for knowledge management could open new ways of combining human expertise with intelligent systems."

Extruder manufacturer **Coperion's** C-Beyond digital platform provides real-time tracking of production that allows companies to evaluate overall equipment effectiveness (OEE) and maximise operational efficiency. German masterbatch manufacturer **CPC** is using C-Beyond to track production, support order planning, and schedule maintenance to minimise downtime, Coperion reported. In addition, energy consumption data is monitored to support optimisation.

"For us, CPC's digitisation initiative confirms the added value that C-Beyond can offer. We are convinced that will be a groundbreaking tool in the long term, helping customers achieve increases in productivity and sustainability," said Markus Schmudde, head of research & development, compounding & extrusion at Coperion.

"Customers now expect faster colour matching, digital prototyping, and data-driven quality control," added LYB. "The broader use of inline spectroscopy and digital shade control is enhancing colour accuracy, reducing scrap, and supporting more consistent, recyclable packaging production."

"AI is transforming masterbatch manufacturing by enabling virtual colour and property prediction, formulation optimisation and real-time anomaly

Below: Coperion's C-Beyond digital platform is used by German masterbatch manufacturer CPC for multiple tasks



detection, to prevent off-spec waste," continued LYB. "These tools deliver faster colour matches, tighter specifications, reduced scrap and energy use, and improved demand planning. Challenges remain around data quality, standardisation, intellectual property management, and plant-level adoption. Looking ahead, LYB expects AI to integrate lab, production and lifecycle data to automatically recommend low-footprint, compliant formulations that maintain brand colour consistency, using closed-loop feedback from converter operations to continuously refine performance and sustainability outcomes."

Masterbatch producer **Ampacet** launched a Digital Design Library that allows designers to integrate the company's materials into three-dimensional visualisations of their products in KeyShot's design-to-market software. The library includes colours and effects in different resin types and, in some cases, for different processes.

Mercedes Landazuri, Ampacet Market Insight Manager, said: "By integrating our advanced colour and effects solutions with KeyShot's rendering capabilities, we're putting our innovative materials directly into the hands of designers, enabling them

to push creative boundaries while accelerating speed-to-market. This resource reflects our commitment to innovation and collaboration."

Avient's PCR Color Prediction Service is a digital tool that is globally available for recycled materials. The tool helps illustrate the colour possibilities or limitations of PCR containing polyolefins or rPET and can help simplify the overall decision-making process for brand owners and technical colorists as well as shorten the time-to-launch of new product ranges, the company said.

CLICK ON THE LINKS FOR MORE INFORMATION:

- > www.amiplastics.com/consulting
- > www.tosaf.com
- > www.lyondellbasell.com
- > www.gabriel-chemie.com
- > <https://deltatecnic.com>
- > www.ubqmaterials.com
- > <https://chromacolors.com>
- > www.sunchemical.com
- > www.coperion.com
- > www.cpc.de
- > www.ampacet.com
- > www.avient.com

AMI | Events Agricultural Film and Plastics

July 14-15, 2027 | Long Beach, CA, USA

Innovations, applications
and circular solutions

SECURE YOUR DISCOUNTED PLACE



AMI Plastics World Expos NORTH AMERICA

NOVEMBER 11-12, 2026 // CLEVELAND, OHIO, USA



THE FOCUSED TRADE SHOW FOR PLASTICS COMPOUNDING, EXTRUSION, RECYCLING AND TESTING

CONFIRMED EXHIBITORS INCLUDE:



LIMITED PRIME LOCATIONS REMAIN! BOOK YOUR BOOTH NOW

CO-LOCATED EXPOS:

COMPOUNDING
WORLD EXPO

POLYMER TESTING
WORLD EXPO

PLASTICS EXTRUSION
WORLD EXPO

PLASTICS RECYCLING
WORLD EXPO

VISITOR
REGISTRATION
NOW LIVE!



REGISTER FREE TODAY >



METTLER TOLEDO

MIXACO

Michigan Additive
TECHNOLOGIES

Milliken

mine colours

Mitsui Chemicals



MoistTech Corp.

NAGASE
Nagase America LLC

nanoScience
Instruments

NanoXplore
Performance Through Carbon Chemistry

NETZSCH
Proven Excellence.

NEXAM
CHEMICAL



SEE THE FULL LIST OF EXHIBITORS HERE >

NOW OVER 85% SOLD! SPEAK TO OUR SALES TEAM TODAY >



AMI | Events

PVC Formulation

February 24-25, 2027 | Charlotte, NC, USA

Exploring market trends, technological innovations, and sustainability advances in the PVC industry

Sponsored by:



Mark your calendars and book your place!



AMI | Events

Stretch and Shrink Film

20-22 April 2027 | Málaga, Spain

Driving innovative trends and packaging solutions to create a circular economy

- Acquire insights into creating sustainable, efficient processes that reduce environmental impact while driving innovation
- Stay ahead of the curve with actionable advice on navigating complex legislation like PPWR
- Meet and collaborate with visionary leaders, pioneers, and influencers shaping the future
- Interactive sessions including panels, live polling, roundtables and networking opportunities make this more than just an event



Sponsored by:



BOOK YOUR DISCOUNTED PLACE TODAY

Download these new product brochures

Simply click on the brochure cover or link to download a PDF to your PC or smartphone

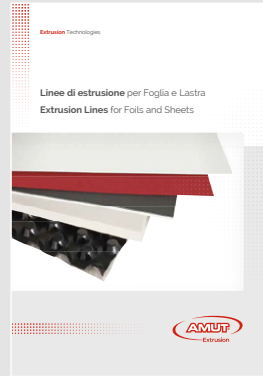
DIING KUEN: BLOWN FILM



In this brochure, Taiwan-based Diing Kuen provides all the specifications of its blown film technology to produce mono, two three, five and seven layers.. The film lines are divided into four categories: HTRL horizontal top rotating; EBLR vertical top rotating; BFL fixed; and other types.

[CLICK HERE TO DOWNLOAD](#)

AMUT: FOIL EXTRUSION LINES



Built on more than 50 years of plastics expertise, Amut's range of extrusion lines for production of foil and sheet covers a broad range of applications. They can produce mono or multi-layer sheet as thin as 150 microns and as wide as 3.3m at rates up to 4 tonnes/hr or more.

[CLICK HERE TO DOWNLOAD](#)

COLINES: BARRIER FILMS



This new brochure from Colines focuses on extrusion lines for the production of barrier films for vacuum and modified atmosphere packaging to preserve foodstuffs and medical products.

[CLICK HERE TO DOWNLOAD](#)

BRUCKNER: BOPP/BOPE FILMS



Brückner Maschinenbau says its BOPP/BOPE film lines offer benefits including high stiffness and sealing strength, excellent transparent barrier, outstanding puncture resistance and linear tear opening behaviour. Find out more in this brochure.

[CLICK HERE TO DOWNLOAD](#)

HAN KING



Han King, based in Taiwan, has produced this brochure outlining its machines for blown film extrusion, covering five-layer film, three-layer co-extruded film, agricultural film, geomembranes; plus other products in stretch hood, lamination and bags.

[CLICK HERE TO DOWNLOAD](#)

VAN MEEUWEN: ADDITIVES



Van Meeuwen's functional additive range for plastics film and sheet producers includes anti-blocks, anti-statics, anti-fogs and specialty fluids. Suitable for plastic packaging applications, products comply with EU food contact regulations.

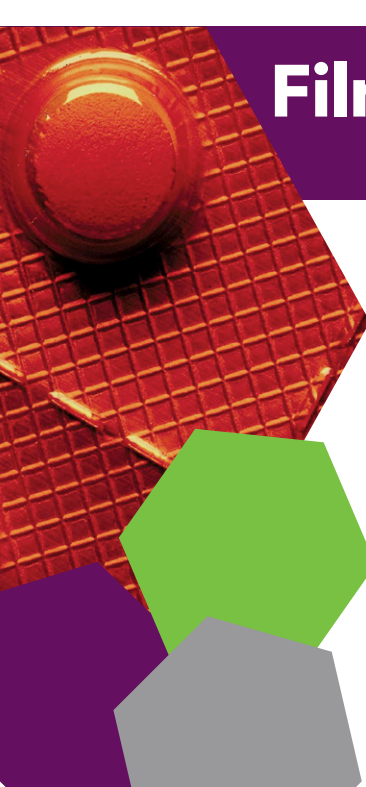
[CLICK HERE TO DOWNLOAD](#)

If you would like your brochure to be included on this page, please contact claire.bishop@amiplastics.com. Tel: +44 (0) 7905 848744

Tropic Plastic & Packaging

Head office:	Durban, South Africa
CEO:	Ismail Simjee
Founded:	1963
Ownership:	Private
Profile:	Tropic Plastic & Packaging Industry, founded in 1963, is a leading South Africa-based manufacturer of flexible packaging material, supplying both the domestic and wider African markets. It carries out film extrusion, flexographic printing, lamination and bag converting, for a number of markets including food and beverage, dairy and industrial.
Product lines:	The company produces a wide range of low-density polyethylene (LDPE) films and packaging items, including shrink wrap, laminated bags, transparent bread bags and custom flexible packaging. Other products include: printed PE shrink packaging and sheeting; printed and plain PE tubing; clear and printed contoured bottom bags; and printed PE wicketed bags. In addition, the company will supply custom packaging to meet exact specifications. Its multi-layer co-extrusion technologies create specialised structures such as special laminating films with thin sealing layers and recyclable PE mono-material structures for food products with critical shelf life and other sensitive applications. Its brands include Tropistar printed shrink film, Tropistar Plus FFS bags and Tropiseal.
Factory locations:	The company's manufacturing facility in Durban uses mainly European technology for extrusion, 10-colour printing, and converting. It recently expanded its capabilities with a Reifenhäuser Evo five-layer blown film line with Ultra Flat technology to expand capacity while supporting sustainability and circular economy goals.

To be considered for 'Extruder of the Month', contact the editor on lou.reade@amiplastics.com



Film and Sheet FORTHCOMING FEATURES EXTRUSION

The next issues of Film and Sheet Extrusion magazine will have special reports on the following topics:

October 2026

Recycling/granulators
Extruder developments
Biax film
PEWE North America preview

November/December 2026

Thinwall packaging
Screen changers/melt filtration
Foamed sheet
Polyolefin additives

Editorial submissions should be sent to Lou Reade: lou.reade@amiplastics.com

For information on advertising in these issues, please contact:

Claire Bishop: claire.bishop@amiplastics.com Tel: +44 (0)1732 682948

Keep informed: read our latest editions

AMI publishes five process-specific FREE plastics industry magazines. Simply click on the cover below to read each magazine. Every edition of the magazines can be downloaded in PDF format



Film and Sheet July/August 2026

Film & Sheet Extrusion's July-August edition has a cover feature on the latest developments in pouches while other articles cover the varied source materials for new bio-based plastics, plus new downstream processing equipment.

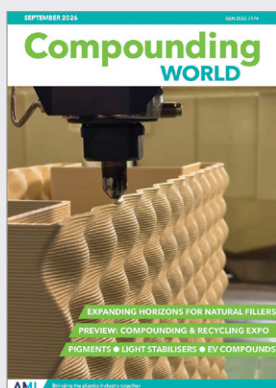
[▶ CLICK HERE TO VIEW](#)



Film and Sheet May/June 2026

Film & Sheet Extrusion's May-June edition has a cover feature that looks at the response to industry pressures in stretch and shrink film, plus other features on developments in sheet, waterproof membranes and blown film dies.

[▶ CLICK HERE TO VIEW](#)



Compounding World September 2026

Compound fillers derived from natural feedstocks are becoming more common, as detailed in the main feature of Compounding World's September edition. There is also a Preview of Compounding & Recycling Expo in Frankfurt and the latest in pigments and light stabilisers.

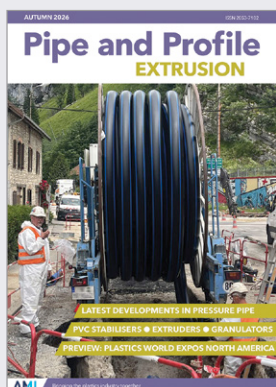
[▶ CLICK HERE TO VIEW](#)



Plastics Recycling World July/August 2026

In its cover feature, Plastics Recycling World's July-August edition looks at technology for the critical role of washing in a recycling line. The other features in this edition explore polyurethane and chemical recycling.

[▶ CLICK HERE TO VIEW](#)



Pipe and Profile Autumn 2026

The cover feature of Pipe and Profile Extrusion's Autumn edition looks at pressure pipe companies winning praise for their work. The issue also contains features on the latest in extruder and recycling technologies, plus PVC stabilisers.

[▶ CLICK HERE TO VIEW](#)



Injection World July/August 2026

The ability of thermoplastics to break new ground in medical moulding is explored in the main feature of this edition of Injection World. Other articles cover recent developments in 3D printing and bio-based materials.

[CLICK HERE TO VIEW](#)

Take out your own FREE subscriptions to any of the magazines. Click on the logos below to simply register on-line.

Compounding
WORLD

Film and Sheet
EXTRUSION

Pipe and Profile
EXTRUSION

Injection
WORLD

Plastics Recycling
WORLD

GLOBAL EXHIBITION GUIDE

2026	16-17 September	Kunststoffenbeurs, 'S-Hertogenbosch, Netherlands	https://kunststoffenbeurs.nl
	24-28 September	TaipeiPlas 2022, Taipei, Taiwan	https://www.taipeiplas.com.tw/en/index.html
	8-10 October	PlastPrintPack West Africa, Abidjan	www.ppp-westafrica.com
	8-11 October	Plastex, Brno, Czech Republic	www.bvv.cz/en/plastex/
	12-16 October	Fakuma, Friedrichshafen, Germany	www.fakuma-messe.de
	3-6 November	Ecomondo, Rimini, Italy	www.ecomondo.com/en
	11-12 November	Plastics Extrusion World Expo North America, Cleveland, USA	https://na.extrusion-expo.com/
	10-13 November	Plastimagen, Mexico	www.plastimagen.com.mx
	1-5 December	IPF Japan, Chiba	www.ipfjapan.jp
2026	2-5 December	PlastEurasia, Istanbul, Turkey	https://plasteurasia.com/en/
	14-16 December	RACE, Mumbai, India	www.raceexpos.com
	13-16 April	Chinaplas, Shenzhen, China	www.chinaplasonline.com
	20-22 April	UTech Europe, Maastricht, Netherlands	www.utecheurope.eu
	27-29 April	Plast-Alger, Algiers, Algeria	www.plastalger.com
	3-7 May	NPE 2027	www.npe.org

AMI CONFERENCES

15-17 September 2026	Single-Serve Capsules Europe, Malaga, Spain
24-25 November 2026	Flexible Packaging Innovation & Recycling, Vienna, Austria
7-9 December 2026	Stretch & Shrink Film North America
TBA, 2027	Polyethylene Films, USA
20-22 April 2027	Stretch and Shrink Film Europe, Malaga, Spain
14-15 July 2027	Agricultural Film and Plastics, Long Beach, USA
TBA, 2028	Biax Film

For information on all these events and other conferences on film, sheet, pipe and packaging applications, see www.amiplastics.com

DON'T MISS A SINGLE ISSUE

Register now for your free subscription at:
www.filmandsheet.com

And don't forget to tell your colleagues, customers and suppliers about the magazine. You can use the share button above (the  symbol in the browser) to help spread the word.

