SEPTEMBER/OCTOBER 2026

ISSN 2052-9376

Injection WORLD



LATEST IN THERMOPLASTIC ELASTOMERS

SHOW PREVIEW: FAKUMA 2026 ● PACKAGING

ENERGY MANAGEMENT ● RECYCLED MATERIALS

AMI

Bringing the plastics industry together



AMI

Connecting the global plastics industry

AMI supports the global plastics industry and related sectors with must-attend events and must-read news and intelligence.

Find out about opportunities for you and your business.

Exhibitions
Take part in AMI's leading exhibitions and connect with thousands of global decision makers.

Conferences
Network with industry leaders and accelerate your business growth at our focused events.

Market Intelligence
Navigate, innovate and grow your business with trusted market insights, data and analytics.

Magazines
News, technical developments, product innovations, market trends, and more.

www.amiplastics.com

Injection WORLD



PAGE 11

4 Industry news

Sponsored by CLF Injection Moulding Solutions

11 Top performers: machinery for packaging

Developments in packaging include a tethered cap for packing tablets, closures made from chemically recycled material and new electric machines with short cycle times

PAGE 15



15 Saving grace: cutting energy use

Energy savings can be applied widely in injection moulding – from the machine itself to material refinements and improvements to critical ancillary equipment

PAGE 19



19 Recycled materials: back from the brink

Recycled materials developments include a bucket made of discarded fishing nets, PCR grades of POM and a prototype automotive bumper made from 30% recyclate

23 Bouncing back: latest in TPEs

Recent TPE innovations include a material for fatty food contact, new grades for automotive sealing and new technologies for high-performance running shoes

COVER PHOTO: NORDA

PAGE 23



29 Fakuma comes back to Friedrichshafen

Fakuma returns to Friedrichshafen in Germany in October, with its traditional focus on injection moulding technology. We preview some of the highlights

40 Dates for your diary

COMING NEXT ISSUE

› Digital production › Hot runners › Materials handling

CONTACT US

CLICK HERE TO MAKE SURE YOU GET YOUR COPY

AMI

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

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

DOWNLOAD MEDIA DATA

EDITORIAL

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

Editor: Lou Reade
lou.reade@amiplastics.com

Senior Staff Writer: Chris Saunders
chris.saunders@amiplastics.com

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

ADVERTISING

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

Advertising Sales (China/Hong Kong): Maggie Liu
maggieliu@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.

News sponsored by
CLF
Injection Molding Solutions

Pexco in injection takeover

US-based Pexco has acquired Recto Molded Products and Legacy Extrusions, expanding its capabilities in injection moulding, tooling and assembly.

The Cincinnati-based company, founded in 1919, operates injection moulding presses ranging from 55 to 500 tonnes. It supplies customers in markets including warehouse automation, conveying systems, inventory management, and building and construction products.

"Customers increasingly want a manufacturing partner that can support a product from concept and tooling through moulding, assembly, and production," said Sam Patel, CEO of Pexco. "Recto's engineering expertise and tooling capabilities expand our ability to deliver complete engineered manufacturing solutions to our OEM partners."

› **www.pexco.com**

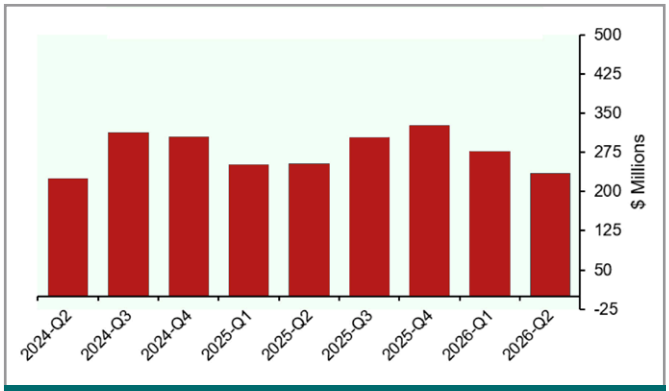
North American machine deliveries decline in Q2

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.



Primary plastics machinery shipments
Source: PLASTICS Committee on Equipment Statistics

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**

NexPoint becomes the newest player in ETPs

NexPoint Materials, operating as NexPoint, has launched as a standalone engineering thermoplastics (ETPs) company following the finalisation of its acquisition from Sabic's Engineering Thermoplastics business by Mutares. The new company employs approximately 2,800 people and operates an integrated manufacturing, technical, and commercial network across Europe and the Americas.

The name NexPoint is meant to reflect the value the company provides at the precise point where customers need responsive collaboration, deep materials expertise, and practical solutions.

NexPoint offers a broad portfolio of thermoplastics including Lexan polycarbonate (PC), Cycolac acrylonitrile butadiene styrene (ABS), and Valox polybutylene terephthalate (PBT) resins and blends which are widely used in the automotive, healthcare, electrical/electronics, building/construction, consumer, and industrial markets.

The launch marks a new chapter in the engineering thermoplastic sector, said NexPoint, with a sharper focus on customer, supplier, and partner collaboration.

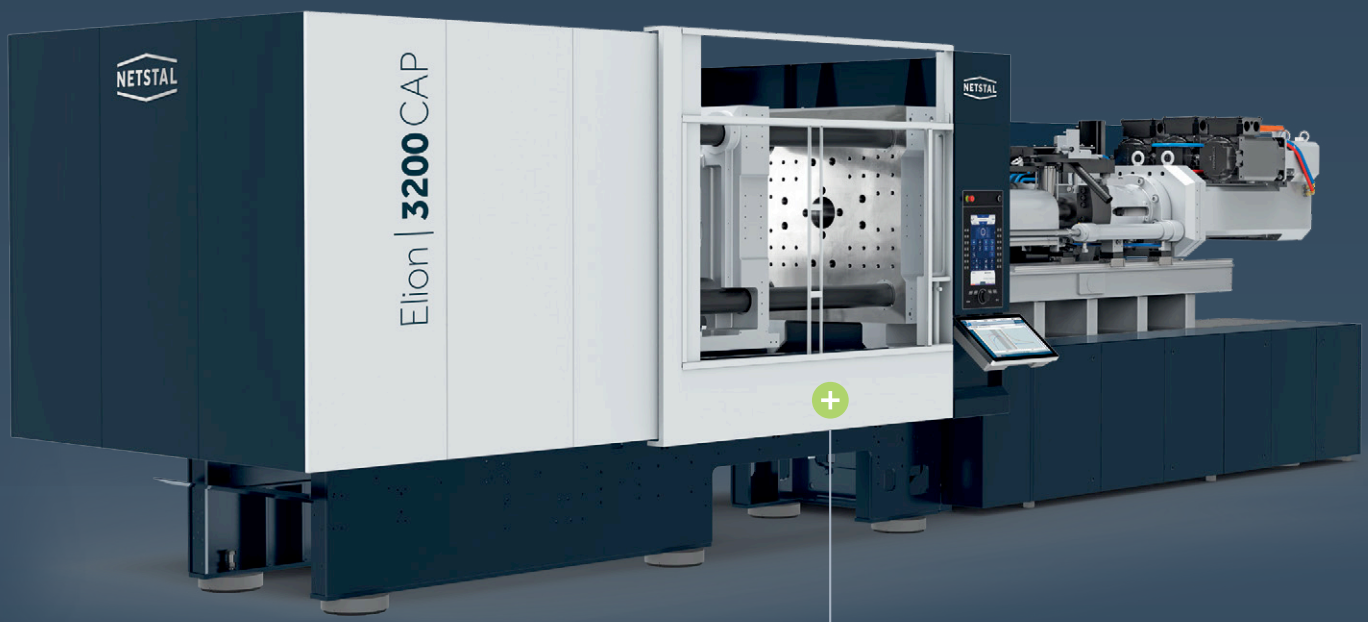
› **www.nexpointmaterials.com**

NETSTAL

World Premiere: Fakuma | B3-3119

Your application determines the technology

At Netstal, the choice is yours: hybrid or all-electric. At Fakuma, Netstal will present an all-electric closure application for the first time - featuring a clamping force of 3,200 kN and a size 2000 electric injection unit for energy-efficient, high-performance production.



Fakuma Premiere
Now also all-electric.

Closures

Your best choice

Netstal.com

News sponsored by
CLF
Injection Molding Solutions

Engel sets up in Serbia

Engel has begun construction of a manufacturing site in Serbia.

The plant, in Kikinda, is part of a "targeted evolution" of Engel's European manufacturing business, it said, with a focus on "relocating mechanical manufacturing operations to make better use of international location advantages and establish a resilient European supply chain".

In the first phase, a 13,000 sq m facility will produce machined components. Around 150 employees will be recruited over the first three years – allowing Engel's Austrian plants to focus on more demanding, customer-specific system solutions.

"The Kikinda site complements our existing plants across Europe," said Stefan Engleder, CEO of Engel. "It improves cost efficiency and gives us greater flexibility


IMAGE: ENGEL

Engleder: "Serbia site complements our existing plants across Europe and improves cost efficiency"

compared to sourcing directly from Asia. Our Austrian plants will have more room to focus on highly complex, tailored system solutions."

Peter Jungwirth will become managing director of Engel Serbia, adding to his role as commercial director of the Kaplice (Czech Republic) site.

Separately, Engel begun a strategic partnership with French injection moulding machine manufacturer Billion – which will no longer manufacture new machines. Instead, it will service its existing machines and recommend Engel to supply new machines.

"The machine concepts of both companies complement each other so well," said Engleder.

Customers will soon be able to see an Engel solution at Billion's Tech Centre. As well as its existing sales office in Wissous, the partnership allows Engel to use Billion's facilities, bringing it physically closer to the French market.

Korbinian Kiesl, CEO of Billion, added: "We made a deliberate choice to partner with a strong European player, because the long-term security of our customers matters most to us."

› **www.engelglobal.com**

Arburg acquires Stork IMM

Arburg has acquired Dutch machinery manufacturer Stork IMM from Stibbe Participaties.

Arburg says the takeover will allow it to expand in large and packaging machines.

"By purchasing Stork IMM, we are investing in the future", said Volker Nilles, CEO of Arburg.

The companies said the acquisition takes place against a background of volatile developments, lower volumes, increasing international competition and economies of scale.

"Stork machines are ideally suited to extending the Arburg portfolio to include machines with a clamping force in excess of 5,000 kN, and for packaging," said Nilles.

› **www.arburg.com**

Milliken dedicates new PP clarifier production

Milliken has announced the successful startup of dedicated production capacity for Millad ClearX 9000, the company's fifth-generation clarifier technology designed to deliver exceptional clarity, performance, and processing efficiency in polypropylene (PP) applications.

The increased capability strengthens Milliken's ability to support customers with reliable supply and consistent quality as demand for advanced PP solutions grows.

"Customers are looking for ways to improve product appearance and performance while maintaining production efficiency,"


IMAGE: MILLIKEN

Milliken said Millad ClearX 9000 represents the latest advancement in its PP clarifier portfolio

according to Allan Randall, global product line manager for Milliken's plastic additives business. "ClearX 9000 helps them do both," he added

The dedicated production capacity strengthens the resilience of the company's global manufacturing network, complements its existing operations, increases flexibility to respond to changing market requirements, and helps ensure consistent product availability.

Milliken said Millad ClearX 9000 represents the latest advancement in its PP clarifier portfolio.

› **www.milliken.com**

HEXPOL® | THERMOPLASTICS

Customized TPE

TPE, TPV, TPU • masterbatch • soft PVC



Fakuma

Meet us
B1-1117

hexpol.com/thermoplastics/

info@hexpolTPE.com

News sponsored by
CLF Injection Molding Solutions

Rethinking the wheel with PA66

A carbon-fibre-reinforced PA66 compound from Lati has helped to integrate electronics into a motorsport steering wheel.

In the project, Aim Tech – an Italian company specialising in electronics and data management systems for motorsport – used a 50% carbon fibre grade in the SW4 racing steering wheel. The growing complexity of onboard electronics required a structure that could maintain precise dimensional tolerances while ensuring light weight, stability and aesthetic quality.

To make the front panel and accessory components of the steering wheel, Aim Tech chose Latamid 66 H2 K/50 by LATI, a tough PA66 reinforced with 50% carbon fibre. The part was moulded by GST Plast.

› **www.lati.com**

Tioxide restarts UK TiO_2 pigment production

Tioxide has recommissioned the titanium dioxide (TiO_2) pigment production facility at Greatham in Hartlepool, UK, following LB Group's acquisition of the site and its assets earlier this year. The facility was previously operated by Venator Materials UK Ltd, which entered administration in late 2025.

Production has now commenced, with single-stream operation underway and Tioxide and Deltio products returning to the market. The restart follows four months of commissioning, testing, and maintenance work, and a phased ramp-up is now underway with a clear roadmap to achieve full operational capacity by early 2027.

"Drawing on more than 50 years of manufacturing heritage, the site at Greatham has a proud history of producing high-quality TiO_2 pigments," said Karen Askwith, Managing Director at Tioxide. "With production now underway, our focus turns to delivering our ramp-up programme, stepping the site up to full manufacturing operations, and ensuring our customers have access to a reliable and sustainable source of TiO_2 pigments for many years to come."



IMAGE: TIOXIDE

The facility at Greatham is aiming for full operational capacity by early 2027

The facility has a total nameplate capacity of 150,000 tonnes/yr, with production supported by the company's new research and development centre in Wynyard and its headquarters in Stockton-on-Tees.

The company has now launched the second phase of its recruitment programme. Recent appointments in finance, business services, and operations, have increased the company's workforce to more than 200.

› **https://tioxide.com**

Haitian and Hennecke team up on IMC

Haitian International and Hennecke are to develop integrated injection moulding and in-mould coating (IMC) solutions for the automotive industry.

The companies will work more closely on system-level integration across design, development, manufacturing and control.

By combining Haitian's injection moulding technology with Hennecke's PUR metering, mixing and coating expertise, they aim to improve process accuracy, stability and production efficiency – particularly for mass production of large, high-gloss automotive exterior parts.

IMC can be more efficient than the traditional 'injection moulding + post-painting' approach – with lower emissions and more consistent quality. Haitian has already introduced PUR paint-free turnkey solutions and expanded IMC from interior parts to exterior components.

Haitian presented a mature IMC application at its recent Open Week. One highlight was the JU7500M/2400 automotive grille, built on a PC/ABS + PUR material system and optimised for front grille applications.

It integrates Haitian's multi-component technology with PUR equipment for precise metering, stable coating thickness and better pressure control – reducing defects such as bubbles and orange peel while improving yield.

At the same time, optimised moulding and coating processes cut cycle time, improve material use and remove the need for painting, they said.

› **https://haitianinter.com**

Taiwanese machine shipped to US

Taiwanese injection moulding machinery manufacturer Chuan Lih Fa (CLF) has sold a 5000-tonne, two-platen machine to a US customer.

The CLF-5000TPII machine – the largest the company has made – will help a "logistics and retail equipment supplier" produce heavy-duty plastic bulk bins.

CLF selected a two-platen clamping system for the client, eliminating the toggle linkage of conventional toggle machines – which reduced machine length by 15-20% compared units of equivalent tonnage.

IMAGE: CLF



Chuan Lih Fa (CLF) has delivered its largest ever machine to a US customer

In addition – knowing that mould changes on ultra-large machines can be constrained by facility height limits – CLF incorporated a customised side-entry mould loading design. This clamping technology has previously enabled global buyers to use two-platen technology for pallet production.

CLF also built energy-saving into the project, equipping the machine with an electric-servo charging system and adding far-infrared heating elements that reduce heat radiated into the plant. It says the system can cut power consumption by 20-50% during volume production.

"We didn't build this machine to prove how big we can go, but to answer our client's ambitious blueprint," said Jenny Lin, marketing director at CLF.

› **www.clf.com.tw**

Mitsui Chemicals joins AI materials network

Mitsui Chemicals has become a founder member of AI Materials Foundry, an international network that aims to accelerate material development through the use of generative AI. More than 45 leading companies and research institutions worldwide are participating in the project, including NVIDIA, Meta, Samsung, Henkel, Applied Materials, and Tokyo Electron.

"We expect AI-driven materials discovery to significantly improve the speed of R&D and the success rate of new business creation, generating tangible value," said Omote Toshihiko, Mitsui Chemicals CTO and Managing Executive Officer.

With CuspAI's proprietary AI platform MIRA at its core, AI Materials Foundry intends to combine generative AI with the existing framework by integrating training data, computational resources, test facilities, and expertise.

› **https://jp.mitsuichemicals.com**

NEW BOY LR 5 Compact

- **Only 3.1 m² footprint instead of 5.2 m²**
- **No external protective enclosure: handling and conveyor belt fully integrated below the protective cover**
- **Fully integrated into the Procan ALPHA® 6 control system**
- **Significant cost savings**

BOY® Spritzgiessautomaten

info@dr-boy.de
www.dr-boy.de



Fakuma

HALL A7
BOOTH 7101

MADE IN GERMANY BOY Spritzgiessautomaten SINCE 1968

AMI | Events

Fire Resistance in Plastics

3-4 November 2026 | Düsseldorf, Germany

Delivering innovative and sustainable solutions for the fire retardants industry

Meet our confirmed industry-leading experts:



Dr. Thomas Futterer
Pinfa Europe



Dr. Michael Großhauser
Fraunhofer Institute for Structural Durability and System Reliability



Hans Vercammen
Campine



Ravi Bhairi
AZL AACHEN

VIEW THE AGENDA

Sponsored by:

greenchemicals THE PARTNER FOR YOUR GROWTH & polichem

pinfa Phosphorus, Inorganic & Nitrogen Flame Retardants Association

CLARIANT

NETZSCH Proven Excellence.

LKAB



IMAGE: ENGEL

Developments in packaging include a tethered cap for packing tablets, closures made from chemically recycled material and new electric machines with short cycle times

Top performers: latest machinery for packaging

Injection moulding machinery for packaging needs to be fast, accurate and repeatable – and tends towards all-electric models. Several new ones will be seen at Fakuma in Germany in October.

Netstal will present its Elion 3200 CAP for closure production there.

The combination of a newly developed clamping unit with 3,200kN and new electric injection unit 2000 is designed for short cycle times, high process stability, maximum availability and energy efficiency. Customers will be able to choose between hybrid and all-electric configurations in the clamping force range of 2,200 to 4,200kN in future.

At Fakuma, Netstal will show the Elion 3200 CAP producing beverage closures. The new machine, together with a 72-cavity mould from Z-Moulds and hot runner system from MHT, forms the basis of a cell to produce 26mm HDPE closures. The shot weight is 72g, the cycle time 1.8 seconds. Material is from TotalEnergies, while Piovan takes care of the material preparation. The downstream equipment is from IMDvista and the chiller is provided by EF Cooling.

"Our new all-electric solution achieves the high dynamics required for closure production," said Renzo Davatz, CEO of Netstal. "Customers benefit from high energy efficiency, process stability and availability."

The optimised geometry of the toggle lever enables short dry cycle times, and the optimised force application ensures greater stiffness of the clamping plate. This raises stability and helps lengthen the service life of the electric clamping unit.

The new electric injection unit 2000 offers many advantages. The screw stroke is 260mm. Depending on the screw diameter, the unit achieves an injection pressure of up to 2,400 bar. The optimally coordinated injection dynamics enable short injection times for applications in closure and packaging production and medical technology. Synchronously controlled injection spindles ensure symmetrical load distribution, which reduces mechanical stress and lengthens service life of the injection unit.

The pressure changeover during injection is force- dependent and works independent of the material properties. The result is highest precision and shot weight consistency even with very fast cycle times, says Netstal.

Netstal is currently gradually converting the Elion series to a new platform. Since 2025, clamping units with 1,200 and 1,750kN as well as the electric injection units 270 and 530 have been available. This is followed by the clamping units with 3,200 and 4,200kN as well as the electric

Main image: Engel showcased an E-mac 380 making flip-top closures at Chinaplas this year



Above: Netstal's Elion 3200 CAP will make 26mm beverage caps in a 1.8s cycle time at Fakuma

injection unit 2000. A clamping unit with 2,200kN and the new 940 electric injection unit are planned for the summer of 2027. The hybrid injection units from 450 to 4200 will remain part of the portfolio. Up to a clamping force of 4,200kN, the Elion can be configured hybrid or fully electric.

"For us, electric and hybrid drive concepts are not competing but complementary technologies," said Davatz. "The decisive factor is which solution best meets requirements. That's why we will continue to offer both technologies in future."

Cost efficiency

Sumitomo (SHI) Demag will show Fakuma visitors how high-performance, cost-efficient production solutions can be achieved through the interaction of injection moulding machine, mould, temperature control, cooling and material.

Highlights include a beverage closure application running on an IntElect S 280 and the production of transparent precision components on an IntElect S 75.

"Requirements for modern injection moulding processes are continuously increasing, while applications are becoming ever more complex," said Anatol Sattel, CSO of Sumitomo (SHI) Demag. "Successful projects today depend on close collaboration between specialised technology partners."

One highlight of its joint booth with Technotrans is the production of beverage closures on an IntElect S 280. The all-electric machine manufactures the parts using a 48-cavity mould from HTW, demonstrating the performance and repeatability of its electric drive technology in a high-output packaging application while consuming less energy.

Technotrans provides mould and machine cooling with a compact air-cooled Weco 85 chiller using the natural refrigerant propane (R290) and a high-pressure pump. Enesty supplies the cooling circuits through its Orca Plus water management system, while Eisbär contributes closure cooling and mould area dehumidification. The material processed is supplied by TotalEnergies and has already been used in previous trade show applications.

On an IntElect 75, Sumitomo will produce a transparent card box from polycarbonate (PC). A combination of high dynamics and speed ensures high precision and repeatability – with a focus on reducing internal stresses through intelligent mould temperature control from Technotrans, Contura and CycleTemp. Part removal is handled by an in-house Sam-C robot.

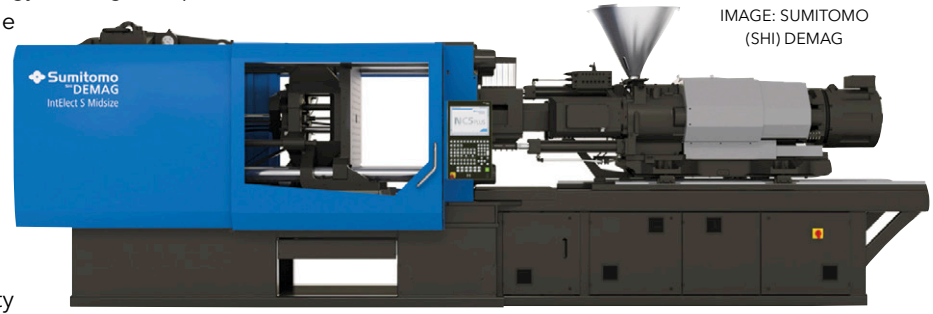
Transparent plastics can present challenges other than dimensional accuracy, as minor internal stresses can cause birefringence effects, haze or optical distortions. The presented solution uses targeted temperature management to process the material reliably, keeping part quality high and minimising scrap. Variothermal mould temperature control and optimised cooling reduces stress in the component and improves optical quality. This is relevant for applications that need high levels of transparency and surface quality, such as automotive displays, lighting components, optical covers and medical products.

High cavity counts

At Chinaplas this year, **Engel** showed several all-electric injection moulding machines for packaging applications – claiming high cavity counts and short cycle times.

One demonstration was based on an E-mac 380 with 3,800kN clamping force. Special versions of flip-top closures were manufactured from 90% HDPE and 10% LDPE in a 48-cavity mould from Cartisan.

The solution is designed for high output with precise process control to address requirements where high cavity counts, short cycle times and reproducible quality are needed. The E-mac supports this with precise motion sequences, high repeatability and energy-efficient operation, says Engel. ›



Right: Sumitomo (SHI) Demag will show two of its IntElect S machines in live demonstrations

YOUR SUSTAINABLE COMPETITIVE GLOBAL RAW MATERIAL PRODUCER

in engineering plastics

PA6 Tecomid®	**PBT** Tecodur®	**PA6.6** Tecomid®	**POM** Tecoform®
PC/ABS Tecotek®	**PPS** Tecotron®	**PC** Tecotek®	**PEEK** Tecopeek®
PET Tecopet®	**PPA** Tecomid® HT	**PP** Tecolen®	**PPO** Tecotek®

- Reinforced
- Impact Resistant
- High Temperature Stabilized
- Hydrolysis Stabilized
- UV Stabilized
- Surface Modified
- Flame Retardant
- Electrically & Thermally Conductive

Fakuma
12-16 October 2026
Friedrichshafen-Germany
HALL 5B
STAND 5212



www.eurotec-ep.com

eurotec® engineering plastics

IMAGE: SANNER



Above: Sanner showcased its newly developed tethered cap at Pharmapack 2026

The part weight of the application was 1.73g, resulting in a shot weight of 83g. The short cycle time was just over 10 seconds.

The high efficiency of the solution was supported by digital assistance systems, such as iQ clamp control – which automatically optimises the clamping force to reduce energy consumption, mould wear and scrap. At the same time, iQ hold control optimises holding pressure without manual intervention, helping to cut material use and cycle time. And, iQ weight control plus compensates for fluctuations in material viscosity in real time by adjusting the injection volume within the same shot.

Right: Novassu is using a KraussMaffei injection moulding machine to make high-end closures



The exhibit was also equipped with the iQ process observer, which analyses more than 1,000 process parameters in parallel and detects deviations at an early stage. This provides transparent process monitoring including recommendations for action. This helps reduce scrap, avoid downtime and increase system availability.

Luxury caps

French closure specialist Novassu has used chemically recycled plastic – and an injection moulding machine from **KraussMaffei** – to produce high-end closures for luxury brands.

The CXZ 250/1000-750 Multinject machine combines 2K sandwich and index plate technologies, which are used to make clear closures with 30% recycled content. The machine has a sandwich plate that injects a layer of recycled material inside skin material. It also allows easy switching between sandwich and standard 2K processes, as well as the use of monomaterial.

The index plate allows the cavities to be rotated for overmoulding and multi-layer processes – a feature that prompted Novassu to choose Krauss-Maffei machines.

"We invest in machines that offer us maximum flexibility – no off-the-shelf," said Gérald Paris, managing director of Novassu. "We need a strategic partner who can also bring in experience from other industries."

The project uses sandwich injection moulding – with recycled material on the inside and new material on the outside. Novassu developed the crystal-clear cube cap itself. The 2K closure contains 30% recycled material. Thanks to the machine's preparation for a third component, other creative effects are also possible – such as marbling through multi-colour injection.

At its site in Molinges, Novassu operates around 20 KraussMaffei machines from the CX and PX series (500-4,000 kN) to produce components that are 10-100mm in size. As well as pure injection moulding, Novassu offers finishing steps such as hot stamping.

Tethered in place

At Pharmapack 2026 recently, **Sanner** showcased its newly developed tethered cap.

It adds to the company's portfolio for sustainable effervescent tablet packaging.

The cap stays attached, enabling improved recycling and a more environmentally friendly overall product, says the company.

Manufacturers of effervescent supplement tablets are under pressure to raise the sustainability of their products and packaging. The issue also plays an important role for consumers. In the tethered cap, the TE safety ring remains attached. This means that all plastic components will be recycled, reducing environmental impact.

"Supporting a functioning circular economy is important to Sanner," according to Stefan Verheyden, CEO of Sanner. "This applies to our products and our own operations."

CLICK ON THE LINKS FOR MORE INFORMATION:

- **www.netstal.com**
- **www.sumitomo-shi-demag.eu**
- **www.engelglobal.com**
- **www.kraussmaffei.com**
- **www.sanner-group.com**

Energy savings can be applied widely in injection moulding – from the machine itself to material refinements and improvements to critical ancillary equipment



IMAGE: SUMITOMO DEMAG

Good save: cutting energy consumption

Main image: Bericap and Sumitomo (SHI) Demag tested the Pac-E machine in an 18-month project

The race towards Net Zero overlaps with a more general need to save energy, and this can be achieved across the spectrum of the injection moulding process – from modifying ancillary equipment to controlling conditions on the machine itself.

In one recent example, **Bericap UK** and **Sumitomo (SHI) Demag** say an 18-month collaborative development project – testing aspects of the Pac-E machine in a real production setting – shows benefits including more than 50% energy savings, as well as fast cycle times and short ROI time.

It is uncommon for companies to embed end-users in the creation of a flagship innovation, especially in large-scale machinery, they said. However, the companies tested the new energy-efficient, fast-cycle Pac-E machine for caps and closures using high-pressure production conditions. Through the work, they showed the advantages of integrating operational insights from end-users in the development process.

Bericap in Hull provided a real-world production environment to validate and optimise the machine's capabilities. Accommodating a 350-tonne Pac-E in active production, over 18 months the machine ran over 11 million cycles. This enabled the Sumitomo team to fine-tune cycle speeds, further-improve component resilience and reduce energy consumption in cap production by over 50%.

"The machine was running continuously and proving to be so energy efficient and reliable, it was challenging to persuade the production team to switch it off to make adjustments," said Dean Bramley, a process engineer at Bericap UK.

For the duration of the project, engineers, process managers, directors and technical specialists from both companies hosted regular on-site reviews, bi-weekly development meetings and weekly technical calls. This continuous feedback loop allowed Pac-E to evolve through live production insights rather than lab-based testing.

The all-electric direct drives, designed by Japanese parent company Sumitomo Electric, served as a springboard to initiate faster machine developments for sectors typically served by hydraulic and hybrid machines, added Dave Raine, managing director of Sumitomo (SHI) Demag in the UK & Ireland.

By the end of the testing programme, the team had generated all the production data required to prove that Pac-E achieved speeds and energy savings once considered "unattainable with all-electric injection moulding".

Aaron Driver, an engineer at Sumitomo (SHI) Demag, added: "Cycle time, energy consumption and machine uptime are the biggest variables in ROI, so became our core development priorities."

The study drew attention to the re-engineered motion system optimised for short-stroke, high-precision applications. Though maximum injection

speed is lower (550 mm/s against 1000 mm/s), the dynamics are higher, said the company – allowing a sub-2-second cycle time fast enough to support production of over 1 billion caps per year.

Composite gains

An EU-funded project called **Forest** – coordinated by **Aimplas** of Spain – delivers biocomposite parts for automotive, aerospace and bus applications with reduced energy consumption.

An EV battery cover, an aircraft cockpit ceiling panel and a bus roof profile show weight reductions of up to 35% while cutting manufacturing energy use by up to 25%.

The project has shown it is possible to make transport components containing more than 50% sustainable materials by combining bio-based feedstocks, recycled carbon fibre and functional additives.

Manufacturing efficiency improved alongside material sustainability. Process optimisation delivered a 15-25% reduction in energy consumption compared with conventional methods, thanks for faster curing chemistry that cut cycle times by 20-40%, one-shot manufacturing concepts that cut out intermediate processing steps and the removal of freezer storage requirements. At the same time, engineering costs fell by 15-20% through simplified tooling, fewer mould iterations and increased process robustness.

"Forest demonstrates that sustainability, lightweighting and safety are not competing objectives," said Fernando Ramos, project coordinator at Aimplas. "By integrating bio-based chemistry, recycled carbon fibres and multifunctional performance, we are reshaping advanced composites for the future of mobility."

Drying efficiency

Blue Air says its BBX Dryer module increases the energy efficiency of pellet dryers by 50-70% compared to conventional hot-air pellet dryers.

The module uses dry process air to convert conventional pellet dryers and opens up new potential for plastics processors keen to improve their profitability and maintain their competitive edge, says the company. It adds that the new dryer is an alternative to 'energy-guzzling' dryers. Conversion is simple, as existing pellet hoppers remain in use. Only the drying unit is replaced with the BBX Dryer module. Blue Air Systems has filed a patent for the innovative module – and says it is open to cooperation to cover markets in America and Asia.

The main energy savings come from the drying method used. Unlike conventional drying strategies, it needs no regeneration energy. It enables a constant dew point without fluctuations and does not require cooling water or a molecular sieve during operation. Drying is very low-maintenance: the dryer 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. Installation of the module is also straightforward thanks to a plug-and-play design – and can be completed in one day.



IMAGE: BLUE AIR

Right: Blue Air says its BBX dryer is more energy efficient than typical hot-air pellet dryers

Depending on the application, a Blue Air BBX Dryer module can save 50-70% energy when replacing a conventional dryer, says Blue Air.

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

The dryer has optimised energy consumption which can be connected to any drying hopper. The advantage is that, thanks to intelligent digital pneumatics, only the exact amount of process air needed to complete the task is used. A finely stepped dry air volume flow control ensures maximum transparency of the drying process. An optional database is available for plastic-specific and throughput-dependent dryer settings. There is also a fill level sensor, and, as standard, a display of the process parameters – including temperature, dry air volume flow, dry air dew point and energy consumption.

"Based on our decades of experience developing dry process air systems, we are convinced that using in-house process air for drying is the superior approach," said Stipsits. "We see a high potential

60 Years of Precision. Ultimate Performance.



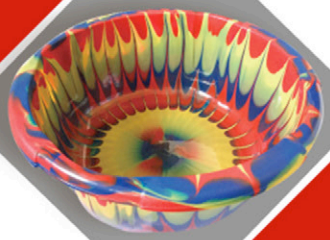


CLF-3500TPII



CLF-600TPIIR







CLF-4200TWII

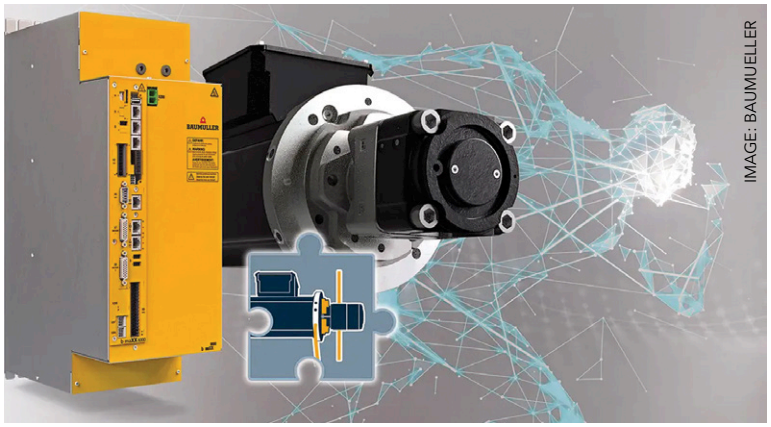


60 Tons ▸▸▸ 5000 Tons

increase 80% of production

CLF
Injection Molding Solutions

www.clf.com.tw
clf @ clf.com.tw


IMAGE: BAUMUELLER

Above: Baumüller says its intelligent drive technology can boost the injection moulding process

for upgrading existing drying systems with the Blue Air BBX Dryer module."

Intelligent drives

At Plast 2026 in Italy, **Baumüller** highlighted aspects of its intelligent drive technology.

Baumüller says it helps machine builders in plastics and recycling technology to make hybrid and fully electric machines that enhance efficiency and process quality. One way it does this is to integrate machine functions directly into the servo drive. This approach reduces system complexity, hardware requirements and response times, enabling shorter cycle times, higher precision, and improved machine protection.

At the event, it showcased a range of intelligent drive functions, including an injection control system integrated into the servo drive with a very short cycle time of 125 µs. By eliminating fieldbus dead times, even the most demanding injection moulding applications benefit from higher process repeatability and reduced material consumption, it says.

Another highlight is the Smart Energy Monitoring feature, which measures and analyses energy consumption directly within the drive system. This eliminates the need for external power meters while increasing transparency and the potential for energy optimisation, it says.

Baumüller also presented its patented actual pressure estimator.

CLICK ON THE LINKS FOR MORE INFORMATION:

- **https://bericap.com**
- **www.sumitomo-shi-demag.eu**
- **www.aimplas.es**
- **www.blue-air.at**
- **www.baumueller.com**

ENGEL

rPET. Our cup of tea.

Recycled PET becomes food-grade thin-wall packaging – a closed loop. **ENGEL e-motion** makes it possible: as the only manufacturer worldwide, ENGEL offers electric injection units with the performance required to process rPET. Short cycle times and the all-electric machine concept deliver maximum productivity and low energy costs. The result is food-grade packaging from recyclate: resource-efficient, cost-effective and future-proof.

Get connected and talk to our packaging experts now.





Discover ENGEL and WINTEC at

Fakuma 2026

Hall A5 | Booth 5203

engelglobal.com/rpet

Recycled materials: back from the brink

Developments in recycled materials include a bucket made from discarded fishing nets, new PCR grades of POM and a prototype automotive bumper made from 30% recyclate



IMAGE: ALPLA

Main image: Alpla's Ocenix bucket is made from PP recovered from discarded fishing nets and ropes

The automotive industry – especially in Europe – is ramping up the amount of recyclate it uses in products, in expectation of the pending End-of-Life Vehicles Directive**.**

PureCycle and **Motherson** have produced a Class-A surface automotive bumper prototype using 30% PureFive recycled polypropylene (PP).

The prototype – made at Motherson's facility in Tuscaloosa, Alabama – has undergone performance tests, including climate testing and mechanical properties evaluation.

"This collaboration is an important step toward integrating recycled materials into applications that meet the high requirements of premium OEMs for Class-A surfaces," said Fabian Wehrle, global innovation exterior engineer at Motherson. "We want to evaluate this through extensive testing to meet the expectations of our customers and to comply with the requirements of the EU End-of-Life Vehicles Directive."

By 2032, pending final adoption, the ELV Regulation will mandate that new vehicles contain at least 15% recycled plastic content, with a minimum of 3% sourced from end-of-life vehicles. By 2036, those thresholds increase to 25% and 5%, respectively. Exterior components such as bumpers are directly within scope.

PureCycle's dissolution recycling process removes colour, odour and contaminants from post-consumer PP, producing PureFive resin with properties similar to virgin material. PureFive is third-party certified for recycled content, providing the traceability and documentation that OEMs and regulators will require for compliance.

For automakers and Tier 1 suppliers targeting the European market, the bumper prototype provides a scalable blueprint for 2032 compliance, says PureCycle.

Nicolas Elwing, senior director of commercial in Europe at PureCycle, said: "The automotive industry has been working to combine recycled materials with Class A quality. In collaboration with Motherson, there are now promising approaches to making this a reality."

Future goals include increasing the recycled content to over 30% and expanding into additional PP applications for exterior and interior applications.

PureCycle is expanding production for European customers, with a new dissolution recycling facility under development at Antwerp in Belgium – and is also building a new facility in Rayong, Thailand. Both are expected to be operational before 2030.

PP for automotive

Sumika Polymer Compounds Europe has invested €13 million in a new mechanical recycling plant in France. The plant will make a range of recycled polypropylenes (PPs) to meet the requirements of the automotive sector, in preparation for ELV regulations.

With a capacity of more than 10,000 tonnes/year of recycled PP, it will recover waste from the automotive sector and reintroduce it into new applications. The new site, in Saint-Martin-de-Crau,


IMAGE: PURECYCLE

Above: Motherson has made an automotive bumper with PureCycle's recycled PP, PureFive

complements a recycling plant it already operates in Turkey. The two facilities will have a combined annual capacity of more than 25,000 tonnes of rPP.

"The new plant illustrates our belief that regulatory compliance should not be seen as a constraint, but as an opportunity to build a more resilient, circular and competitive European automotive industry," said Bruno Pendélio, head of marketing & new product development director at Sumika Polymer Compounds Europe

Sumika says its rPP range, called Thermofil Circle, is designed to meet the challenges of performance, circularity and regulatory compliance for automotive applications. The range offers: mechanical performance for automotive applications; secure supply based on a closed loop value chain; and up to 65% less CO_2 emissions compared to some reference virgin resins.

Meanwhile, Polyblend – part of **TotalEnergies** – is investing €4 million to convert an existing production line – in Bad Sobernheim, Germany – to produce compounds incorporating mechanically recycled materials.

The investment anticipates the proposed End-of-Life Vehicles (ELV) Regulation, which is expected to introduce mandatory recycled-content targets for new vehicles. The new line will begin operations at the end of 2027 with a capacity to produce up to 15,000 tonnes/year of compounds based on recycled feedstock.

"This is a demonstration of our ambition to accelerate development of circular polymers and expand our portfolio of recycled solutions," said Michel Cassart, site director at Polyblend.

POM recyclate

Daicel HPPs has launched four new Duracon POM grades containing 30% post-consumer recycled (PCR) material. The new PCR-POM grades, first seen at Chinaplas 2026, are Standard, Low VOC, Sliding and Tough grades – allowing customers to select a material to suit their application needs.

The standard grade offers a melt flow rate of 9 while Low VOC materials meet OEM requirements. Sliding grades offer better sliding properties while Tough materials deliver the same performance as virgin POM.

Since 2023, Daicel has offered Duracircle re-compounding services, which recycles plastic scrap from customer plants. While the focus was on post-industrial recycling (PIR), PCR-POM uses POM that has been used in the market as a recycled raw material.

A challenge in using PCR materials is variability in properties and ensuring consistent quality. Daicel has performed in-house tests to confirm that mechanical properties are comparable with those of conventional grades. Duracon POM has high mechanical strength/rigidity, good wear resistance and sliding properties, and high dimensional stability.

It is used in applications such as gears, connectors, precision parts and automotive components, and Daicel is looking to expand PCR-POM to meet a wider range of needs.

Recyclates in Japan

A consortium of Japanese companies – including Toyota Motor, **Mitsubishi Chemical** and **Japan Polypropylene** – has launched a feasibility study to evaluate the collection, sorting and conversion of post-consumer plastics into recycled feedstock.

It will also study the material design and traceability of recycled plastics and establish a stable supply system for recycled plastics for use in cars and other applications.

Regulations on the use of recycled materials in automotive have been tightened, particularly in Europe, requiring a stable supply system for recycled materials. However, Japan has nothing similar – and rarely uses recycled plastics in automotive manufacturing. Now, the consortium aims to develop a business model to convert sorted plastics into recycled feedstocks. It will also


IMAGE: DAICEL

Right: Daicel's four new Duracon POM grades containing 30% PCR material

enable advanced sorting of PCR plastics and ensure traceability using digital technology and AI.

In future, the partners plan to build a system to supply high-quality recycled feedstocks – including those from chemical recycling – with a view to transitioning to a pilot project or full commercialisation.

Nets to buckets

Other industries are also pushing to increase their use of recycled materials. Danish recycling company **Plastix** and **Alpla Industrial** have teamed up to convert discarded fishing nets and ropes into industrial packaging – in the form of the Oceanix bucket.

Plastix processes recovered nets and ropes into recycled polypropylene (rPP), which Alpla uses to make products like the bucket.

"End-of-life fishing nets and maritime ropes are challenging and complex waste streams," said Hans Axel Kristensen, CEO of Plastix.

Before the fishing nets and ropes are converted into new products, they are sorted, shredded and washed by Plastix, and finally processed into rPP using an Intarema 1512 TE recycling machine from **Erema**.

The rPP pellets are used across Alpla's bucket portfolio for applications including paints, varnishes, coatings and construction products. According to life cycle assessment (LCA), the recycled material generates 94% fewer CO2 emissions than comparable PP made from virgin raw materials.

Circular collaboration

Plastics producer **Rondo Plast** – part of Polykemi – has a ready source of recyclate for its recycled grades: its customer **Modulpac**.

Modulpac is a manufacturer of PE and PP caps, jars, and lids. Both polymers are important to Rondo Plast – and are in high demand, it says. Since 2015, Rondo has regularly purchased this production scrap from Modulpac.

"We've seen increasing demand for recycled plastic materials in the past 10 years," said Patrik Lindqvist, category manager for recycled materials at Rondo Plast. "The demand primarily concerns PP, but also engineering plastics such as PC, ABS, PA6 and PA66."

Modulpac has established efficient scrap management, while Rondo Plast has a supplier that can deliver plastic that is free from contamination and sorted by polymer.

"Modulpac's willingness to collaborate is highly valued by us," said Lindqvist. "Their efficient handling is essential for our ability to upgrade and refine by-products into high-quality recycled plastic."



IMAGE: RONDOPLAST

Above: Closure manufacturer Modulpac supplies scrap back to plastics producer Rondo Plast

Eurotec says its Tecomid Eco series meets the needs of the industry and contributes to more economical and environmentally friendly production processes. Tecomid Eco NB43 GR30 BK400 CE M25I is 30% glass fibre reinforced with 25% recycled content, developed for outer door handle core applications and has received design validation from an OEM. Combining good surface quality and mechanical strength, it offers a sustainable solution without compromising the performance and aesthetic needs. Another grade, Tecomid Eco NB43 GR30 BK012 HS M65I, contains 65% recycled PA6 and 30% glass fibre reinforcement and was developed for structural and visible parts. With a carbon footprint up to 80% lower, it is currently used in sunroof frame applications.

Blind faith

Lati has developed a chemically recycled engineering thermoplastic that was used for structural components in roller blinds.

A project developed with UK-based Crossen Engineering and Bloc Blinds replaced a traditional fossil-based compound with LatiEco 62 CR G/30 – a PA6 reinforced with 30% glass fibre that cuts global warming potential (GWP) by around 70% while maintaining mechanical performance, it says. The material is used in the structural components of a new prototype motorised blackout blind from Bloc Blinds.

The material's GWP decreases from around 6kg CO2 (for the fossil-based product) to 2kg for the chemically recycled equivalent. The material also met the mechanical, dimensional and functional requirements of the structural components of the new motorised blind. Tests performed by Bloc Blinds showed performance comparable to that of the conventional fossil-based compound under the expected test conditions. Validation included more

IMAGE: JAN PELS, TORWASH



Above: ReBioCycle has shown that PLA can be recycled from mixed plastic waste

than one thousand operating cycles, confirming its suitability for applications requiring reliability, structural stability and repeatable operation.

Sustainable clamp

Wittmann says its EcoFritz clamp is a sustainable alternative to cable ties – which are used to secure media lines and cables to hoses on injection moulding machines.

Unlike cable ties, the clamps can be removed and repositioned as often as needed. They are made in three different sizes to fit all commonly used corrugated hoses.

At Fakuma 2026, the company will produce EcoFritz clamps in a live demonstration inside an Ingrinder work cell. 'Ingrinder' means that the machine, robot, conveyor belt and granulator for in-line recycling of sprues and production scrap are already integrated into a single unit. The housing is attached to the machine, which enables a space-saving arrangement of all process components.

The equipment used to make the clamps includes a servo-hydraulic SmartPower 60, a WX90 servo parts removal device and an S Max granulator. Inside a two-cavity mould supplied by Röttger, a glass-fibre-reinforced polyamide is processed using the Airmould gas-injection moulding technology. The sprue is ground up directly in the production cell and mixed into the raw material – so is recycled without leaving the production cell.

Internal gas pressure injection moulding also supports high material efficiency. In the Airmould process, nitrogen is injected into the cavity with plastic melt. The pressurised gas forms a bubble inside the central area, which counteracts the shrinkage contraction on the outside to prevent sink marks. By reducing the quantity of plastic material and generating a hollow space inside the moulded part, lightweight parts can be produced with a short cycle time and good surface quality. The internal material pushed out by the nitrogen is reground with the sprue and re-processed within the production cell.

The gas for Airmould is generated on-site by an N2easy nitrogen generator, which extracts nitrogen from ambient air and supplies it to the process – saving the need to bring a gas bottle to the site.

PLA recycling

The EU-funded **ReBioCycle** project has shown that PLA can be recycled from mixed plastic waste and returned to virgin-quality material.

The consortium – including Torwash and **TotalEnergies Corbion** – confirmed that PLA can be sorted from mixed plastic waste streams using existing technologies, before being chemically broken down into lactic acid and turned back into PLA with properties equivalent to virgin material. The sorting was carried out at pilot scale, showing that recycling PLA is technically viable beyond the laboratory. The recovered material was broken down into lactic acid using Torwash's hydrolysis technology. In the final step, TotalEnergies Corbion repolymerised the recovered lactic acid into recycled PLA.

"Showing that recycling PLA from mixed waste collection [can be converted] to new PLA is a major step in fulfilling the ambitions of the PPWR in terms of packaging recyclability," said Maelenn Ravard, regulatory and sustainability manager at TotalEnergies Corbion. "Achieving circularity is all about having a strong value chain and this is the strength of ReBioCycle consortium."

In future, the consortium will focus on developing and validating new applications using recycled PLA, while continuing to scale the process toward full industrial deployment.

CLICK ON THE LINKS FOR MORE INFORMATION:

- **www.purecycle.com**
- **www.motherson.com**
- **www.sumikaeurope.com**
- **www.totalenergies.com**
- **https://hpps.daicel.com**
- **www.mcgc.com**
- **https://plastixglobal.com**
- **www.alpla.com**
- **www.erema.com**
- **www.rondoplast.se**
- **https://modulpac.com**
- **www.eurotec-ep.com**
- **www.lati.com**
- **www.wittmann-group.com**
- **www.rebiocycle.eu**
- **www.totalenergies-corbion.com**

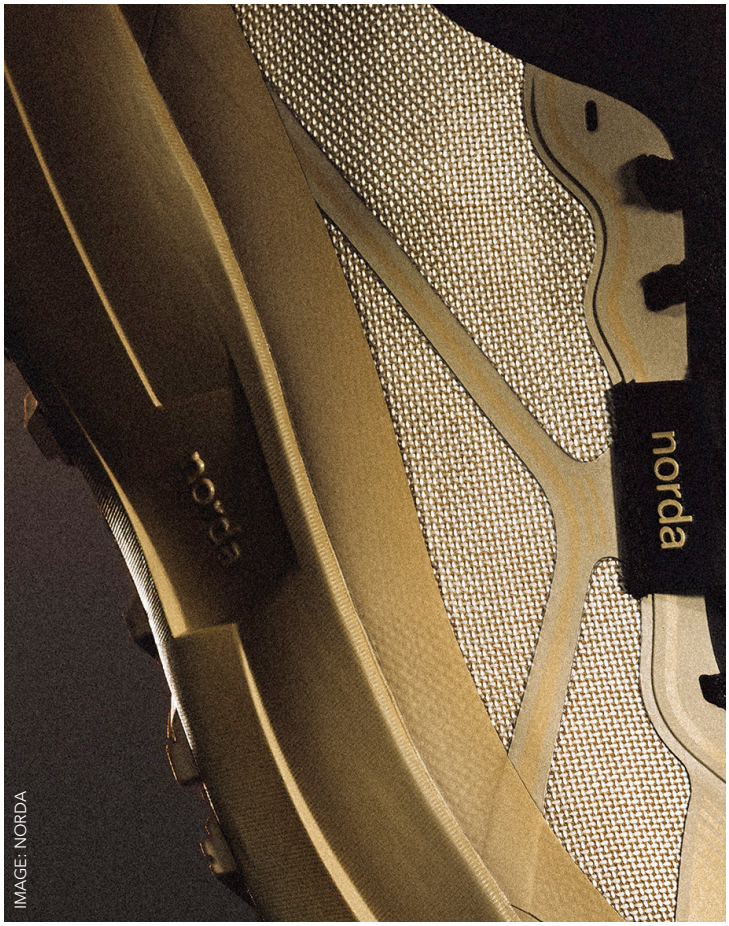


IMAGE: NORDA

Bouncing back: latest in TPEs

Recent TPE innovations include a material for fatty food contact, several new grades for automotive sealing and new technologies for high-performance running shoes

Elastomers are used across the spectrum of industry, including food, automotive and footwear.

BASF presented polyurethane and thermoplastic polyurethane (TPU) solutions for footwear at this year's Simac show in Italy.

One highlight was how its Elastopan SpringPure is used for midsoles. Together with Gusbi, BASF has automated classical heat press technology for high-quality, lightweight midsoles. The result combines low density, design freedom and comfort with almost waste-free processing, it says.

The SpringPure portfolio offers low density without compromising the durability or performance expected from polyurethane – with solutions based on both polyether and polyester. The portfolio also includes systems compatible with CO2-based blowing technologies, enabling even lower densities for lightweight footwear.

Separately, with Desma, BASF presented a closed-loop concept combining PU and TPU, linking mechanical and chemical recycling technologies and debonding-on-demand of material components. Three concept shoes – a monomaterial sandal, a sneaker and a men's shoe – illustrate the recycling routes for PU and TPU systems.

"We offer meltable PU and TPU that don't end up as waste but can be recovered, recycled and reused in the production of new shoes,", said Felix Willenbrink, marketing manager for footwear, sports and leisure at BASF.

BASF also introduced a new processing approach for its Infinergy expanded TPU. Based on an energy-efficient heat press process, the technology enables the production of lightweight, high-performance components while maintaining comfort, durability and energy return. Infinergy Revolution offers manufacturers more design freedom, new surface textures and enhanced processing flexibility, says BASF.

For outsoles, Elastollan GripTec combines high-performance TPU technology with greater sustainability and design freedom, it says. Engineered to deliver better traction and abrasion resistance, it offers an alternative to conventional outsole materials.

BASF also ran a design contest for students at the Politecnico Calzaturiero, to combine an Elastopan SpringPure midsole (white) with an Elastollan TPU outsole (dark and light grey).

Running the show

Norda has launched the 055, a running shoe that uses Arnitel thermoplastic copolyester elastomer (TPC) midsole technology from **Envalior**. ›

Main image: Norda's 055 trail running shoe has an Arnitel midsole from Envalior

IMAGE: BASF



Above: BASF showcased its Elastopan SpringPure and Elastollan TPU grades at Simac recently

Building on the earlier 005 model, the new 055 is built for long-distance racing and highly technical terrain, combining enhanced cushioning and rebound with lightweight durability and stability. Showing its performance in competition, ultra runner Rachel Entrekin recently won the Cocodona 250 race in Arizona wearing the 055.

The 055 highlights the versatility and resilience of Arnitel foam technology across trail running applications, says Envalior. While the 005 was designed as a light, fast trail racing shoe, the 055 expands performance with a thicker Arnitel midsole for more cushioning and protection.

"Arnitel continues to redefine what trail runners can expect from high-performance midsoles," said Andre Oosterlaken, market development manager for Arnitel at Envalior. "Working with brands like Norda keeps pushing us to continue developing next-gen midsole foams to meet and exceed their expectations."

Envalior says that Arnitel delivers higher mechanical property retention, consistent performance across varying temperatures and terrains, and long-lasting rebound performance. Its low energy loss after foaming enables midsoles to maintain responsiveness and comfort across extended distances and tough environments.

"With the 055, we set out to create an all-mountain shoe that's explosive, yet stable," said Nick Martire, co-founder of Norda. "Arnitel's mechanical properties made it the only foam that could strike the balance between rebound, stability and durability."

The launch of the 055 coincides with Envalior's introduction of next-generation Arnitel foaming grades, developed to improve foam performance and expand processing capabilities for footwear applications. The new materials support continued innovation in lightweight, durable and high-performance footwear solutions, says Envalior.

Silicone elastomers

Wacker will launch two new silicone elastomers at Fakuma – one for e-mobility applications, the other for food contact.

Elastosil LR 3822 is an oil-exuding liquid silicone rubber (LSR) developed for connector seals in the cooling system of EV traction batteries. Its low compression set ensures high sealing, while it is also resistant to coolant.

The crosslinked elastomer continuously releases silicone oil from its surface, creating a lubricant film that facilitates the machine assembly of moulded parts significantly. The silicone is also durable and tear-resistant. After curing, it can be stretched by 270% without cracks or damage. Another advantage is its superior low-temperature flexibility, retaining elasticity as low as -45°C.

Tests show that the silicone maintains most of its mechanical properties even after being stored for 1,000 hours in a glycol-water mixture at 125 °C. This becomes evident when examining its compression set. This test records the ability for rubber parts to return to their original thickness after prolonged pressure stresses. With a compression set of 44%, sealing elements made of the material have enough resilience to ensure a consistent sealing performance in the seal groove during operation.

The material has a Shore A hardness of 60. Possible applications include weather packs or sealing elements in the cooling circuit of electric-vehicle batteries.

Wacker will also showcase what it called the first non-postcure silicone rubber with self-adhesive properties.

Elastosil LR 5471 is an LSR that complies with the recommendations of the German Federal Institute for Risk Assessment (BfR) regarding silicones for food contact. It adheres to several metals, as well as thermoplastics like PBT and PET.

The material crosslinks to form an elastomer with a very low volatile content. As a result, hard/soft composite parts made from the new grade can be used in the food and medical industries, as well as in infant care.

Self-adhesive LSR grades allow hard/soft composite components to be made efficiently in large-scale production runs. Internal bonding agents added to the silicone polymer ensure strong, reliable adhesion to the substrate. Ideally, the hard component can be overmoulded with LSR in the injection moulding machine without any surface treatment. This allows cost-effective mass production of composite parts based on thermoplastic or metal materials.

Standard LSR grades usually need several hours

of thermal treatment for sensitive applications. An additional processing step during manufacturing means this is not the case with Elastosil LR 5471.

In addition, it exhibits an elongation at break of up to 570% and a tear strength of 38 N/mm (according to ASTM D 624 B). This means that non-postcured parts have sufficient elasticity and mechanical strength for highly demanding applications. Examples include gaskets and flexible scrapers for cookware, baking and kitchen utensils, liners for medical masks, therapeutic devices and soft components for pacifiers and baby bottles.

Styrene TPEs

Traditionally, automotive interior components such as instrument panels, door panels, armrests, and centre consoles have been made using multiple materials and separate manufacturing processes for the skin, foam and structural core layers. **Asahi Kasei** says its styrene-based thermoplastic elastomer (TPE) streamlines this approach by enabling skin and foam layers to be formed from the same material family.

Through core-back injection moulding, the layers can be produced in a single process. Strong chemical bonding between them eliminates the need for additional adhesives. The result is a simplified material structure that reduces manufacturing complexity, lowers material usage, and enhances the recyclability of interior components.

The company will show the materials at Fakuma.

Sustainable TPEs

Kraiburg TPE says it has developed a more sustainable TPE for automotive sealing systems, based on its Thermolast K series.

The material – developed with automotive supplier SaarGummi – has over 50% post-industrial and post-consumer recyclate and can be integrated into existing applications without affecting performance or processability.

Automotive materials typically need high mechanical load capacity, resistance to environmental influences and reliable processability – while sustainability has become increasingly important. To meet these needs, the companies began developing the new material in 2023. It was tested against the existing grade under comparable conditions. Results showed that it met the relevant requirements and could be integrated into the production process.

"Our aim was to design a material that saves resources while meeting the high quality standards of the automotive industry," said Alexander Mayer, senior business development manager at Kraiburg. "The first results have shown that we are on the right track with this development."

The result is a TPE with a recyclate content of about 56% that reduces the product carbon footprint (PCF) compared to that of the previous variant.

Sebastien Roux, TPE material & process specialist at SaarGummi, added: "The material meets the requirements of our application and can be reliably combined with existing components."

Kraiburg has also developed a material with adhesion to polar thermoplastics for applications such as contact with fatty foods. Its new FC/CM3/AD1 compound series meets the requirements of two important regulations for food contact applications in Europe and the US. The new series was developed for contact with fatty foods and is also characterised by a pleasant feel and improved organoleptic properties.



IMAGE: KRAIBURG TPE

Left: Kraiburg's new new FC/CM3/AD1 TPE series is suitable for contact with food

Increased consumer awareness of environmental and sustainability issues has led to rising demand for reusable products in many areas. Typical examples include food containers like lunch boxes, where the seals in the lids are often made of thermoplastic elastomers.

"We have been working intensively on this topic in recent years and have invested heavily in the development of new compounds for safe applications in food contact," said Dirk Olberding, market manager consumer at Kraiburg TPE. "We have determined precise calculation bases for migration properties and transferred them to the formulation of commercial TPS types."

CLICK ON THE LINKS FOR MORE INFORMATION:

- **www.basf.com**
- **www.nordarun.com**
- **www.envalior.com**
- **www.wacker.com**
- **www.asahi-kasei.com**
- **www.kraiburg-tpe.com**

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:

Aaron Industries Corp. · ABS Advanced Blending Solutions · Advanced Cryogenic Ent · ACS Group · AIMPLAS · Akdeniz Chemson Beyond Additives · AirMax · ARDL · KAHL · American Cutting Edge Industrial Blades & Knives · American Industrial Product · AMPACET · Anton Paar · ArrowPoint · Attwell Plastics · AVIAN Recycling System · B&P Littleford · BÄRLOCHER · BPM Bay Plastics Machinery · BRENNTAG · Bronkhorst · Budenheim · BUNTING · BYK · C4 POLYMERS · CABOT · CANNON Instrument Company · Cargill · CAROLINA PEC · CDS · Chemyork · cieTrade · CIMBAR · CLARIANT · Clinton Instrument Company · CMG granulators · CSM Corporación Sierra Madre · CPM · CUTMETALL · DUT Dorstener Wire Tech · DOSITECH · DoverMEI · AUTOSOL · EBM Manufacturing Inc. · ECON · EFS PLASTICS · EISENBEISS · Ensign Equipment · ENTEC · ENTEK · ENTEX · exxel polymers inc. · FACI · FARREL POMINI continuous compounding systems · Federal Equipment Company · FIMIC · FOREMOST · Galata Chemicals · Guill · GLOBALPOLYMER · GLOBAL-PAK · gneuß · GOETTFERT · H-P Products · HAMMERTEK · JLS · HARWICK STANDARD · Hauschild SpeedMixer · HELLUVA CONTAINER · HERITAGE PLASTICS · HORIZON SYSTEMS · iD Additives · IMCD · INDUSTRIAL MAGNETICS · Integrated Control Technologies · INTERLAKE Plastics Supply · JSW · JAY EXTRUSION MACHINERY · jeg plastics color concentrates with character · JEOL · Kal-Polymers · KEB · KIBBECHEM · KICE · KISUMA · KONGSKILDE · Kubota Brabender Technologie GmbH · KUHNE GROUP · KW · LAIDIG · LANXESS Energizing Chemistry · LAWER · Leistritz EXTRUSION TECHNOLOGY · Leybold · LUDECA · MHolland · MAAG Group · MAGRIS Performance Materials · MAS Upcycling to the next Level · matium · MERIDIAN · mesutronic

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 >

SEE THE FULL LIST OF EXHIBITORS **HERE >**

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

Headline sponsor

AMI | Events

Polymer Engineering for Energy

TEIJIN ARAMID

1-2 December 2026 | London, UK

Optimising polymer solutions for oil, gas and the global energy transition



Hear from experts including:



Frode Grytten
Principal Researcher
Equinor



Mirza Mansoor Baig
Engineering Specialist
Saudi Aramco



Brent Volk
Principal Engineer – Nonmetallic Materials
ExxonMobil



Scott Pisarik
Lead Materials and Corrosion Engineer
Chevron



Denis Melot
Expert Non-Metallic Materials & Coatings
TotalEnergies

Also sponsored by:

element

PRIMUS LINE

Aritec New Materials Group AG

BASF We create chemistry

FPI FUTURE PIPE INDUSTRIES

Supported by:

ENERGY Tech Review
TECHNOLOGY SOLUTIONS THAT DRIVE ENERGY INDUSTRY

SECURE YOUR DELEGATE PLACE TODAY

Fakuma returns to Friedrichshafen

Fakuma comes back to Friedrichshafen in Germany in October, with its traditional focus on injection moulding technology. We preview some of the highlights

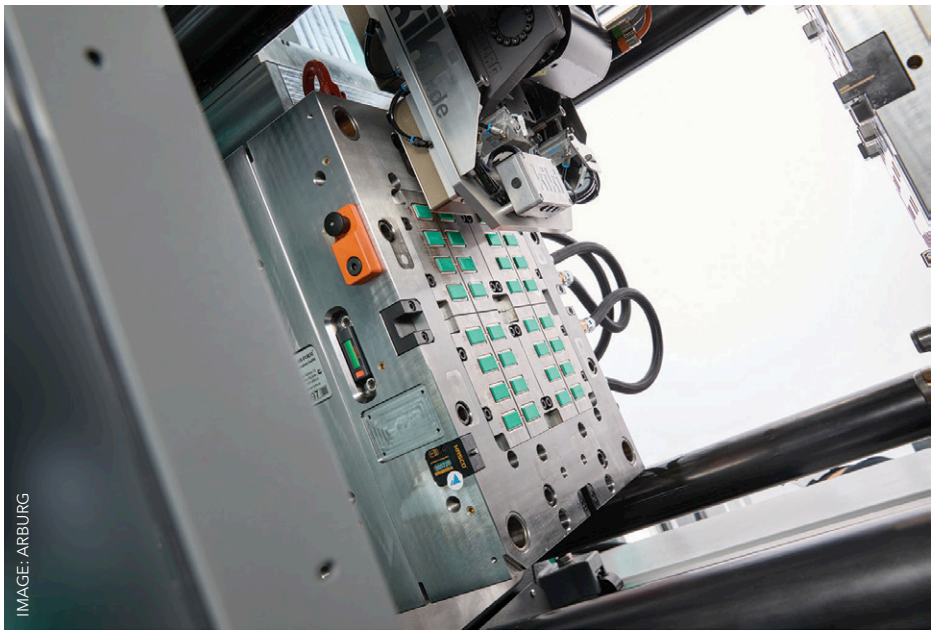


IMAGE: ARBURG

Main image: An Allrounder More 2000 from Arburg will make two-coloured dominoes at the show

The Friedrichshafen exhibition centre in Germany hosts the 30th Fakuma trade fair from 12-16 October, in what will be the largest collection of injection moulding and raw material innovations in Europe this year.

On the following pages, preview some of the companies that will be showing materials or equipment of interest to the injection moulding sector.

Arburg will present a turnkey solution centred around an Allrounder More 2000 – in which a two-component (2k) machine will produce two-coloured dominoes on a 32-cavity hot runner mould.

A new feature is the pre-assembly of the boxes in an autonomous upstream automation cell. A cobot is also used to complete and perform the output of the complete ready-to-use game set.

The machine, with a clamping force of 2,000kN, is equipped with a size 400 horizontal injection unit and a size 170 vertical injection unit. A 32-cavity mould from Polarform with hot runner technology and standard parts from Hasco are also used. In a cycle time of around 60 seconds, 32 two-coloured domino bricks are made from ABS.

Unlike conventional 2k applications, the mould does not open and rotate to add the second component. Instead, the mould movement is generated using a two-stage core pull concept. The front side of the dominoes is created by injecting a light grey ABS component via the vertical injection unit. With the mould closed, two hydraulic cylinders then retract the cores and the individual number of pins – creating space in the cavities for the second, mint-green ABS component. This is injected via the horizontal injection unit and fills the back of the bricks and their indentations on the front.

› **www.arburg.com**

Asahi Kasei says it will showcase plastics solutions for mobility, electrification and industrial applications at Fakuma 2026.

In automotive, its Xyron modified polyphenylene ether (PPE) resin combines dimensional stability, lightweight characteristics and advanced metal

About the show

Organiser: PE Schall **Dates**: 12-16 October 2026 **Location:** Messe Friedrichshafen **Hours:** 09.00 – 17.00
Tickets: €35 day ticket (€28 students) **www.fakuma-messe.de/en**


IMAGE: ASAHI KASEI

Right: Asahi Kasei will show a polycarbonate car front window coated with its hard coating

plating performance. At Fakuma, Asahi Kasei will show coated slotted waveguide antenna samples for automotive radar applications. By enabling lightweight, precise, cost-efficient antenna designs, Xyron supports the next generation of connected and autonomous vehicles, says the company.

It is also developing a water-based coating allowing polycarbonate to be used as a glass substitute in automotive front-, rear-, and side-window applications. Polycarbonate coated with the technology achieves ECE R43-compliant abrasion resistance and the required weather resistance for automotive windscreens. This could help to reduce overall vehicle weight. At Fakuma, Asahi Kasei will show an automotive front window made of polycarbonate coated with its hard coating.

Beyond automotive, it will present materials for electrical and industrial applications.

Leona is a portfolio of polyamide and PPA materials for demanding industrial electrical applications. At Fakuma, Asahi will present flame-retardant PA66 and high-CTI tough PPA for glow-wire connectors, transformer components, SMT connectors and power modules. Combining high flame retardancy, tracking resistance, mechanical durability, and temperature performance, Leona enables safer, more compact electrical systems, it says.

Xyron also provides a balance of electrical insulation, flame retardancy, lightweight properties and dimensional stability for industrial applications. Exhibits will include solutions for data centre busduct systems, battery cell holders, and PCR-PS+PPE sustainable material concepts.

› **www.asahi-kasei.com**

Benvic is increasing its focus on bespoke formulations, which it will showcase at Fakuma.

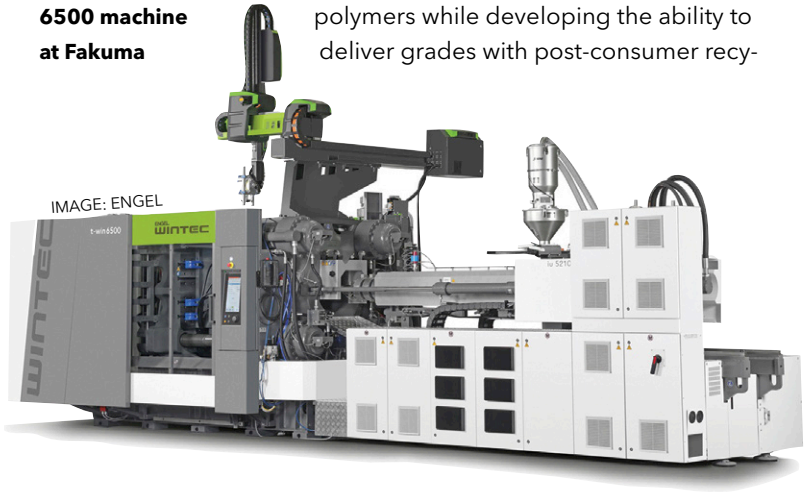
Following its recent acquisition of PP and TPE engineering and manufacturing units in Ferrara, Italy, it is continuing applications for these polymers while developing the ability to deliver grades with post-consumer recyclates to meet new ESPR and ELVR regulations.

Its approach to bespoke formulations is to develop matching solutions from PCR feedstocks to meet specifications. This enables solutions for automotive, electrotechnical, E&E and fluid management. It says its PCR-based compounds are designed to ensure stability and efficiency, to ensure a smooth transition to new regulations for both designers and converters.

In addition, it can develop mechanically recycled compounds for other thermoplastics, extending its offering beyond PVC with new rABS and rPA solutions. Broadening its application range will help customers who want to consolidate their supplier base rather than managing multiple suppliers, it adds.

› **www.benvic.com**

Below: Engel will produce coat hangers using a T-win 6500 machine at Fakuma


IMAGE: ENGEL

Engel will carry out a live production run of coat hangers using a T-win injection moulding machine with 6,500kN clamping force.

On the stand, the T-win 6500 will use a 4+4-cavity family mould to produce four hanger bodies and four hooks at once, with each geometry moulded separately within the tool. A Viper 20 linear robot removes parts and places them onto a conveyor belt. With a cycle time of about 40 seconds, the cell has an output of around 360 coat hangers per hour, processing a polypropylene copolymer from Borouge International.

The T-win 6500 is designed for high production volumes without compromising on quality or budget. Its build stays close to standard, and allows short cycle times, high repeatability and low reject rates, says Engel.

The performance is delivered by the T-win series' friction-free two-platen design. Because the mounting platen never touches the tie bars, the clamping unit runs virtually wear-free, combining rigid mechanics with high platen parallelism. The injection unit is built for speed and efficiency, as

linear guides ensure low friction, low energy consumption and high accuracy during injection and holding pressure.

The C3 control system, with 15in touchscreen and one-touch operation, makes the technology intuitive to use, even for semi-skilled staff.

› **www.engelglobal.com**

Envalior and **Secara** have collaborated to develop circular PA6 for automotive applications that meet coming regulations. It will showcase them at Fakuma.

Secara's catalytic depolymerisation technology aims to produce high-purity, drop-in caprolactam that Envalior can use in its existing PA6 production process – eliminating the need for changes to existing manufacturing infrastructure. If successfully scaled up, this will help automotive manufacturers meet upcoming recycled content requirements under the End-of-Life Vehicles Regulation (ELVR) without affecting material performance.

"With Secara, we want to explore what a scalable, high-performance circular pathway could look like and ensure we are ready to support our customers as the ELV requirements take place," said Christophe Cazabeau, EVP performance materials at Envalior.

The results of the collaboration will be most relevant to automotive OEMs and Tier 1 suppliers seeking scalable material solutions to ensure compliance with ELVR – which is expected to come into force later this year. It mandates that at least 15% of the plastic used in new vehicles must initially come from recycled- based sources. In addition, 20% of this recycled content must be from closed-loop sources, meaning material from end-of-life vehicles or parts removed during a vehicle's use phase.

Through its novel depolymerisation process, Secara says it is overcoming traditional obstacles to ELV recyclability.

"Our process is designed to handle large industrial mixed-waste streams containing material inclusions such as glass fibres, flame-retardants and other additives or contaminants," said Fabian Nagel, CEO at Secara. "We selectively break up the target polymers in those waste streams and transform them into drop-in quality monomers."

The initial focus of the collaboration is PCR-derived caprolactam for PA6. This achieves a balance between cost-efficiency and caprolactam purity to deliver the same high performance as virgin PA6, say the partners.

› **www.envalior.com**

› **www.secara.tech**

Eurotec will show a range of engineering compounds at Fakuma based on more than 20 polymer families – including PA6, PA66, PPA, PBT, PP and PC/ABS. These are aimed at industries including automotive (interior, exterior and under-the-hood), e-mobility (thermal management, high-voltage connectors and battery management) and industrial applications.

They include high-strength and reinforced grades for metal replacement, impact-modified, high-heat-resistant, oil- and hydrolysis-stabilised, flame-retardant, wear-resistant, conductive, UV-resistant and mould-in coloured solutions.

At the Eurotec booth, visitors will be able to explore real application samples from different industries and discuss both existing and future projects directly with our technical team.

Eurotec will also showcase its growing Eco portfolio of materials – based on post-industrial and post-consumer recycled PA, PC/ABS, PP, PBT and PET – that combine a reduced carbon footprint with properties close to virgin materials.

Its Tecomid Eco series meets the needs of the industry and contributes to more economical and environmentally friendly production processes, it says. Tecomid Eco NB43 GR30 BK400 CE M25I is 30% glass fibre reinforced with 25% recycled content, It was developed for outer door handle core applications and has received design validation from an OEM. Combining good surface quality and mechanical strength, it offers a sustainable solution without compromising the performance and aesthetic needs.

Another grade, Tecomid Eco NB43 GR30 BK012 HS M65I, contains 65% recycled PA6 and 30% glass fibre reinforcement and was developed for structural and visible parts. With a carbon footprint up to 80% lower, it is currently used in sunroof frame applications.

› **www.eurotec-ep.com**



Above: Envalior and Secara have teamed up to develop circular PA6 for automotive applications

Kistler says its MedRelease Suite – on show at Fakuma – includes precision mould cavity pressure sensors, the ComoNeo process monitoring system, model-based quality predictions and the AkvisIO data management platform. These work together to provide complete, auditable quality documentation at component level.

Statistical process control is a challenge for machinery manufacturers in the medical technology sector. Discrepancies in individual components may go unnoticed, while requirements for traceability, data integrity, and complete release

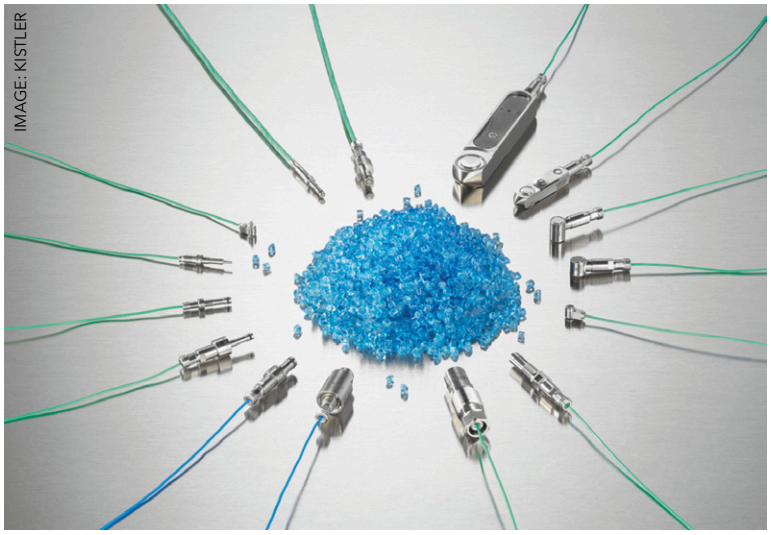


IMAGE: KISTLER

Above: Kistler's medical portfolio enables precise cavity pressure measurement under demanding conditions

decisions are rising. The MedRelease suite helps OEMs and contract manufacturers reduce these blind spots and establish a data foundation for every component made.

Conventional systems evaluate the injection moulding process based on machine parameters such as injection pressure. While these describe machine behaviour, they do not directly reflect what happens in each cavity. Kistler measures pressure inside the cavity, which is where component quality originates, it says. The cavity pressure profile reflects the effects of the key process parameters for a better assessment of component quality. This is measured using Kistler's 6183D cavity pressure sensor, which is 1mm in diameter.

The new generation of ComoNeo processes the captured cavity pressure data in real time and evaluates each production cycle based on defined quality criteria. ComoNeoPredict software uses this data to predict the relevant quality characteristics of each component based on models.

In regulated environments, it is essential to show that quality models operate reliably within their defined scope. Here, Optimize software supports the development, evaluation and validation of the models. The centralised fleet management system AkvisIO then consolidates process and quality data in a central location, creating traceable data for batch release, audits and deviation analyses.

In this way, says Kistler, the MedRelease suite combines process monitoring, quality prediction, validation, and documentation. Depending on the application and its regulatory requirements, manufacturers can gradually reduce conventional testing and statistical sampling after successful validation.

Temperature as an additional control variable in the injection moulding process

Kistler's control algorithms can now also use temperature signals – as well as pressure signals – from the mould. This allows hot-runner moulds to be filled more evenly with ComoNeoMultiflow, while determining the optimal point for switching from the injection phase to the holding pressure phase. This gives users greater flexibility in their choice of sensors and control strategy. The temperature-based switchover function is now also available with the 5159A machine-integrated charge amplifier.

"Real-time release testing cannot be implemented with a single product – it requires precise process data, complete documentation and reliable integration into existing production and quality processes," said Oliver Schnerr, head of plastics at Kistler.

› **www.kistler.com**

KraussMaffei says it has made two modifications to its ColorForm technology – which allows in-mould coating of thermoplastic components.

The first is a multi-coloured mixing head, allowing colour changes to be carried out automatically and directly within the production process. Multiple colours are available at the mixing head simultaneously and can be selected automatically during the production process without replacing colour nozzles, changing colour modules or removing the mixing head.

"With the new mixing head, we enable fully automatic colour changes directly during the ongoing production process," said René Dierkes, head of global multi-technology projects at KraussMaffei. "This provides maximum flexibility, shortens setup times and makes the production of variants significantly more cost-effective."

Until now, a colour change in ColorForm applications has required manual intervention at the mixing head. Although the process is carried out at high speed, it still requires an interruption of the production process. The new technology eliminates this step. All required colours remain permanently connected to the mixing head. The

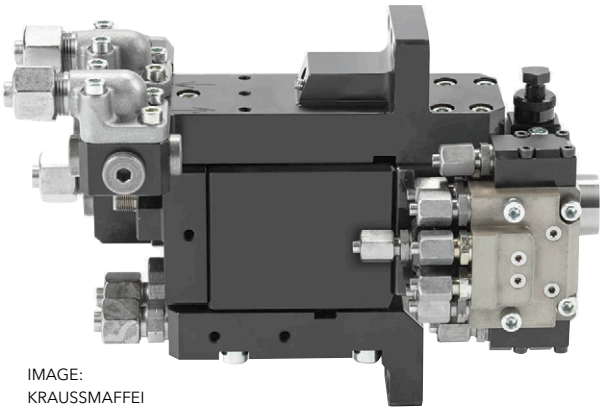


IMAGE: KRAUSSMAFFEI

Right: A new multi-colour mixing head allows automated colour changes

system automatically selects the desired colour while the other materials continue to circulate in the loop. The colour change takes place directly within the process, quickly, reliably, and without mechanical retooling.

The second change – made with its development partner Siegfried Hofmann – is the ability to apply a much thinner coating, cutting material use by 80%.

They have succeeded in coating thermoplastic components directly in the injection mould with a 0.1mm polyurethane layer. ColorForm previously produced surfaces with layer thicknesses of up to 0.5mm, the new development is more resource-efficient.

"By reducing the PU layer thickness from 0.5 to 0.1mm, we are achieving a major technological leap," said Andreas Bierbaumer, technology manager at KraussMaffei. "The material savings of up to 80% reduce the material costs for each component."

The reduction of the PU layer thickness was made possible by optimising the component fixation, sealing system, preform and mixing head. It shows that ultra-thin PU layers can be produced directly in the injection mould with reliable processing and high quality, says the partners.

"We are using the development mould to demonstrate that layer thicknesses of this kind can be achieved reliably," said Stefan Hofmann, managing director of Siegfried Hofmann. "The design and dimensions of the tool are based on current exterior automotive components such as trim panels or diffuser lenses."

› **www.kraussmaffei.com**

Maag will show its Extrex 6 EC gear pump at Fakuma – which it says is designed for continuous conveyance of rigid PVC, overcoming the material's high thermal sensitivity and tendency to degrade.

Maag developed the Extrex 6 EC to overcome the limitations of conventional gear pumps – especially material remaining in dead spaces for too long. Its gap-free design prevents polymers from accumulating inside the pump. This reduces the thermal stress on PVC and cuts the risk of degradation.

Other highlights include: increased extruder efficiency, as uniform, pressure-stable conveying reduces the load on the extruder; and a reduction in process temperature of up to 10°C, which can eliminate the need for stabilisers.

After testing at Rehau's technical centre, a final prototype was tested with a production profile in early 2025. By optimising the pump's thermal balance, Maag ensured that the increase through the pump did not exceed 6°C – even with a melt temperature that was already 10°C lower.

In addition, it will present its Purity Concept V offline testing system from Sikora. The system is used for random sampling and analysing pellets, flakes, and test plates. Using an optical camera, it detects contamination such as black or coloured specks and discoloration from a size of 50 microns. Analysis takes less than a minute and directly delivers a test certificate and an HSV colour map of the detected colour deviations, contributing to the assurance of product quality.

› **www.maag.com**

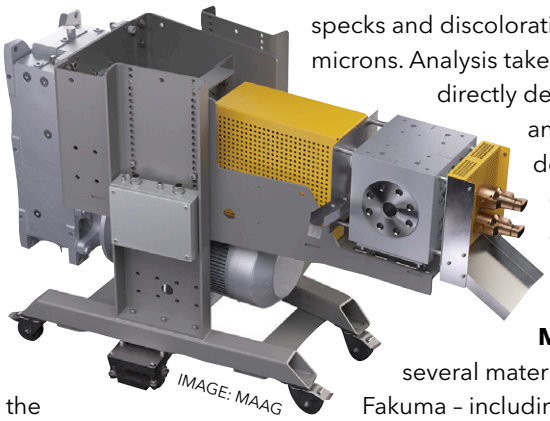


IMAGE: MAAG

Left: Maag's Extrex 6 EC gear pump is designed for continuous conveyance of rigid PVC

Moretto will showcase several materials handling innovations at Fakuma – including a conveyor, deduster and dryer.

It says its Loadmatik is a "revolution" in plastics conveying, as it automatically recognises and applies conveying parameters. Once the source and destination are specified, the system independently calculates the parameters, regardless of the distance or quantity. It consists of three technologies: the smart server One Wire 6 Plus monitors and manages conveying parameters; the X-Loader is a receiver that provides active support for the automatic detection of load values; and KruiseKontrol is a dynamic granule speed control system that manages operating pressures, adapting the material's conveying speed to actual operational needs.

Self-learning algorithms continuously analyse operating data such as granule speed, operating pressures, pipe emptying time and receiver loading level to manage the entire path of the granules. At Fakuma, visitors will see a full-scale conveying system in action.

At the same time, Moretto has developed the new Deduster dust separator, which uses a combination of the Vortex effect, mechanical separation and centrifugal force to separate dust from granules before moulding. It is engineered to ensure material only contacts stainless steel components, eliminating the risk of contamination. An integrated ioniser is also available, ensuring results that comply with the severe regulations of the medical and optical sectors. ›



IMAGE: MORETTO

Right: Moretto says its Loadmatik uses three technologies to create a "revolution" in conveying

Delphy incorporates an RFID recognition system, which checks the correct source-to-destination connection every second. A system of coloured flashing LEDs assists the operator with configuration. This eliminates the risk of error, ensuring advantages in terms of traceability, verification and validation of the material, says Moretto.

Finally, the compact X Comb dryer range has been expanded with four new models – from X Comb 17 to X Comb 20 – for high-quality dehumidification regardless of environmental conditions. It can process technica polymers at up to 60 kg/h. The new models are fully electric and have a footprint of just 0.6 sq m.

All systems can be connected to Mowis, the integrated, self-configuring supervising system that simplifies the management of complex systems and provides an overview of the plant status. Operators can monitor equipment status, track material use and manage production batches in real time, as well as modifying process parameters. The system records comprehensive historical data, schedules workflows, and generates real-time performance reports.

› **www.moretto.com**

M.Tec Engineering will show how to reliably manage increasing system complexity in product development with its AI-powered optimisation tool M.Opt.

It helps to find solutions more quickly, even when faced with conflicting development objectives and high levels of complexity, says the company – which claims it cuts development times, raises process reliability and makes more efficient use of resources.

"The demands on product development are increasing – with development times continuing to shrink, technical systems becoming more complex and the economic environment growing more challenging," said Ulf Seefeldt, head of business development at M.Tec Engineering.

As well as M.Opt, the company will show its expertise in technical system analysis, risk assessment, supply chain management and model-based systems engineering (MBSE).

› **https://mtec-engineering.com**

Below: Negri Bossi will showcase two next-generation injection moulding machines at Fakuma



IMAGE: NEGRI BOSSI

Negri Bossi says it will showcase two next-generation injection moulding machines at Fakuma – for medical and food applications – as well as robotic solutions.

A Nova5e220T-H820 (2160kN) electric press, equipped with a Petek laminar flow hood, will make single-dose, reclosable medical bottles at the show. The containers will be manufactured using a high-performance multi-cavity mould from BDL. The equipment integrates proprietary, patented mechanical technologies from BDL, developed to ensure high-precision centring of both the cores and the moulded component. The system features surface finishes and structured coatings engineered to withstand demanding cycles in the medical sector. The mould architecture is completed by a Mold-Masters SymFill hot runner system, configured to ensure balanced filling in every cavity.

The structure relies on a mould base equipped with components from Hasco. The application shows how the integration of mould design, digital process control and system technologies allows manufacturers to exceed the quality and regulatory standards of the medical industry.

The production cell is completed by a new Sytrama rotary robot, which is engineered to guarantee maximum operational reliability and immediate integration into any production line. Thanks to its high movement speed, the unit increases company productivity and cuts cycle times.

The system is aimed at cleanroom applications,

thanks to a construction made primarily of stainless steel and anodised aluminium. Its smooth surfaces eliminate any potential areas for dust and contaminant accumulation at the root.

In addition, the Nova5e110T H1540 (1080kN) all-electric machine, with a Sytrama S8 robot, is dedicated to liquid silicone rubber (LSR) moulding. In collaboration with German hot and cold runner manufacturer Ewikon, a four-cavity food-grade muffin mould will be produced. The manufacturing cell is a turnkey solution, thanks to the integration of a silicone dosing unit by Binks Reinhardt-Technik and a Ravizza Packaging bagging machine that automatically packages the finished product.

› **www.negribossi.it**



IMAGE: SHIBAURA MACHINE

Shibaura Machine and **EPF Elettrotecnica** will present injection moulding, production automation and quality control technologies at Fakuma.

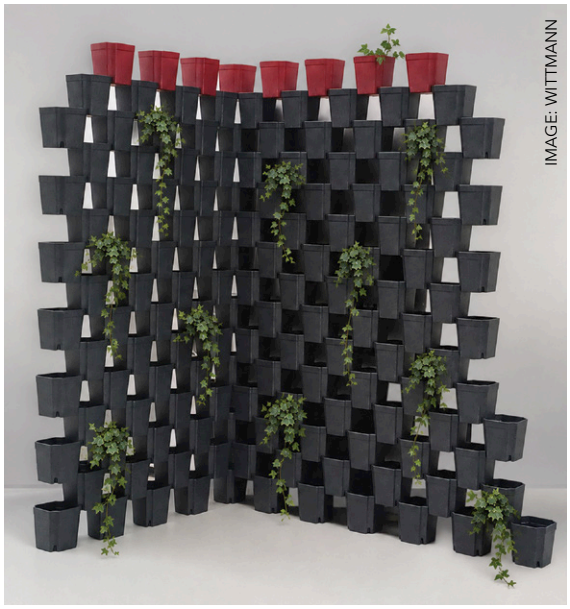
While Shibaura will operate an electric injection moulding machine with automated part removal by linear handling system, EPF will present its Supata Smart Feeder – with automated quality inspection.

Shibaura's EC100SXIII injection moulding machine, with a clamping force of 100 tonnes, will produce a business card box from polypropylene (PP) during the show. A Cartesian linear handling system will place the parts onto a conveyor belt. The solution shows high precision, process stability and energy efficiency, it says.

"A key innovation is S-Concept resin viscosity measurement, which continuously monitors resin viscosity and automatically adjusts processing parameters to ensure consistent part quality – even when processing regrind," said Georg Holzinger, managing executive officer of Shibaura. ›

Above: Shibaura will present a fully electric EC100SXIII injection moulding machine at Fakuma




IMAGE: WITTMANN

Right: Wittmann will make stackable planters at Fakuma, using its Cellmould foam injection

EPF will highlight its Supata smart feeder with automated vertical warehouse, to show how intelligent quality control enhances flexible, automated production. In a live demonstration, the system will process several components in a single production flow, conduct full dimensional and surface inspections with integrated vision technology, and assign batch data automatically to ensure complete traceability. Rapid recipe changes, optional automatic gripper swaps and integration into automated production lines allow manufacturers to oversee growing product variety efficiently while maintaining high- quality standards, it says.

"The future of plastics manufacturing requires inspection systems that are as intelligent and flexible as the production cells they support," said Franco Filippi, chairman and CEO of EPF. "Supata enables our customers to increase efficiency while responding quickly to changing production requirements."

The two companies are planning a joint venture for Italy and Southern Europe. After signing a Memorandum of Understanding in July 2026, the companies will unite Shibaura's global injection moulding expertise with EPF's strengths in automation and engineering to offer customers one-stop solutions for automated production cells.

› **www.shibaura-machine.eu**
› **www.epf.it**

Sun Chemical will show its latest innovations in engineering plastics, sustainability and advanced materials at Fakuma – including its PPS compounds for demanding applications.

Its DIC range of PPS compounds is aimed at demanding applications in electrification, water management and thermal systems. One example is its Z-240 Black, which has high thermal shock, temperature and chemical resistance for bus bars, connectors, pumps and electric motor components. Its new Z-650-MV Black is a medium-CTI (200V) PPS grade that combines thermal shock resistance with electrical performance for hybrid metal-plastic applications, while the new TX-2010-HV Black is a high-CTI grade (PLC Group 0) for compact electrical designs that require shorter creepage distances in high-voltage applications.

Sun Chemical will also show a range of masterbatch technologies. Its new near-infrared detectable masterbatch is free of soot and carbon black – and improves plastic sorting and recyclability in automated recycling streams. In addition, it offers recycling solutions to help manufacturers reduce production waste, increase material recovery and support circular economy initiatives, as well as effect pigments and its Sicolen and Sicoversal sustainable granulate masterbatches that support "responsible material development and manufacturing".

› **www.sunchemical.com**

Wittmann will showcase a variety of technologies at Fakuma – from injection moulding machines to ancillaries – including several live displays.

In one, it will combine sustainability with economic efficiency by making stackable planters. The production cell saves space, energy and material, which reduces unit costs. A 300-tonne SmartPower injection moulding machine will operate with a mould from Schicktanz and Cellmould foam injection technology. Cellmould injects nitrogen into the cavity with the melt, creating a micro-cellular foam structure – which cuts material use. The material processed will be a recycled polypropylene from Borouge. This means the planters have a lower CO_2 footprint.

With testing, Wittmann showed that recycled plastics can be processed with Cellmould as efficiently and stably as virgin material. Production of the planters proves the precision and dimensional stability in processing recycled PP, it says. The high forming accuracy is important, to ensure that the planters can be stacked safely. Any geometric deviation would quickly cause rejects. As the nitrogen distributes itself inside the cavity explosively, even geometrically demanding moulds with small wall thickness areas and undercuts are filled reliably using Cellmould.

Wittmann has developed a special plasticising unit for physical foaming. The patented Cellmould three-zone screw is produced in-house for all applications. It is suitable for a range of plastic materials and yields reproducible parts quality

even with polymers that are hard to homogenise. The individual zones of the screw can be exchanged independently, which makes maintenance work easier and less costly.

The planters will be demoulded by a WX142 linear robot, then passed to a quality inspection station. The quality check is carried out by in-line thermography, which transforms the infrared radiation of the parts into thermal images. Modern camera and image processing techniques enable in-line integration of the thermographic parts inspection into the process, with the infrared camera mounted on the robot's Z-axis beam. The thermal image reveals the condition of the surface homogeneity and of the internal structures. On this basis, the quality of the foaming process can be judged.

The company will also show its Drymax basic 120 mobile dryer. It is laid out for dry air generation of 120 m³/h and granulate throughputs of up to 75 kg/h. To enable continuous provision of process air of high quality for drying, it comes with two desiccant cartridges. The duration and intensity of temperature-controlled regeneration are based on current demand, to avoid excessive energy consumption. The energy efficiency is further increased by automatic temperature reduction during machine standstills or adjustment to lower drying demands.

Thanks to the SmartCare option, it also works reliably in regions with high temperatures and frequent high humidity levels. With SmartCare, a lower and more consistent dew point level is reached by adding a minimal quantity of compressed air to the process.

In addition, its new Feedmax Clean 300 material loader – with integrated dust removal system – is available in two variants with different material transport volumes. Material throughputs of up to 80 kg/h can be achieved. This doubles the maximum throughput previously reached with the Feedmax Clean, in response to increasing use of recycled materials.

The Feedmax Clean reaches high separation rates in transporting of recycling material. In a normal conveying cycle, up to 80% of all particles with diameters below 1000 microns are removed. The undesirable dust particles and fine parts are continuously extracted from the plastic material during the conveying cycle.

For quick inline recycling of sprue and scrap parts, Wittmann offers the required equipment. For all applications, the most suitable models and sizes of ancillaries – such as the granulator, dryer, blender and loader – are carefully selected and coordinated to fit the material, the application and the conditions on the customer's production floor.

The company has also developed a chatbot called Aim4Help that can answer technical questions on its injection moulding machines, robots, and ancillaries. It has product information, gives advice on daily injection moulding challenges – such as entering process parameters correctly – and supports troubleshooting by suggesting possible causes and solutions. During new equipment installation, it will guide users through the individual work processes.

Aim4Help can be accessed directly from the control pages. Machine operators scan a QR code with their phone or tablet. Before now, questions had to be entered in writing, but it now understands the spoken word in multiple languages. At Fakuma, visitors can put it to the test themselves by using use their own smartphone to scan the QR codes on the control panels of the injection moulding machines and robots and ask their questions.



IMAGE: WITTMANN

Left: Wittmann's Drymax basic 120 can handle granulate throughputs of up to 75 kg/h

One advantage of Aim4Help is its 24/7 accessibility – and it "knows more about Wittmann products than the internet", says the company, having been trained on numerous descriptions, technical documents, charts and error analyses including many documents shared exclusively via Aim4Help.

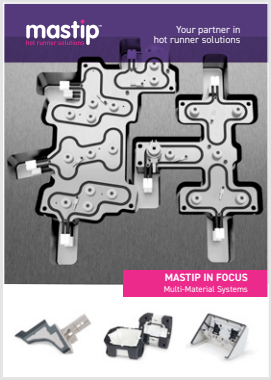
Wittmann will also highlight the performance of its R9 robot controller. Combining intuitive operation and programming with maximum flexibility, it makes things easy for users. In networked production cells, the R9 acts as a communication platform for all ancillary equipment, eliminating the need for separate controllers. With the ability to integrate up to 12 servo axes, it handles complex automation tasks. Both analogue and digital inputs and outputs are available for integrating a wide variety of automation components. Wittmann will also show the latest robot in the WX series – the WX253.

› **www.wittmann-group.com**

Download these new product brochures

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

MASTIP: MULTI-MATERIAL MOULDING



This 10-page publication from hot runner technology company Mastip provides guidance on multi-material moulding and includes case studies on a variety of applications and the hot runner system set-up.

› CLICK HERE TO DOWNLOAD

POLYKEMI: CUSTOM COMPOUNDS



This 12-page brochure provides an introduction to Polykemi and its range of custom engineered plastic compounds. It includes details of production locations, subsidiaries, R&D capabilities and quality certifications.

› CLICK HERE TO DOWNLOAD

KORSINI



In this newsletter, IML company Korsini provides updates on company developments, awards, certification and its portfolio of in-mould label products for injection moulding and other processes.

› CLICK HERE TO DOWNLOAD

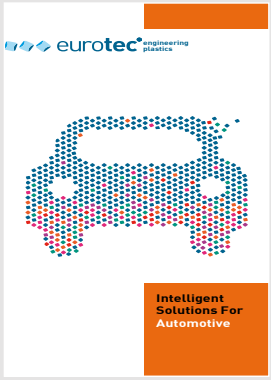
TISAN: ENGINEERING COMPOUNDS



Tisan Engineering Plastics has more than 40 years of experience developing injection moulding compounds for applications in automotive, home appliances, E&E and other sectors. Find out more about Tisan's wide range of materials in this brochure.

› CLICK HERE TO DOWNLOAD

EUROTEC: AUTOMOTIVE COMPOUNDS



This brochure presents the full range of Eurotec's engineering polymer compounds for automotive applications, including interior, exterior and under the hood. Read all about Eurotec's innovative products and tailor made services.

› CLICK HERE TO DOWNLOAD

SUKANO: BIO-MASTERBATCHES



Switzerland's Sukano offers a full range of bioplastic masterbatches and compounds to allow processors to maximise the performance of bio-based resins such as PLA and PHA and to simplify and speed up processing.

› CLICK HERE TO DOWNLOAD

If you would like your brochure to be included on this page, please contact Claire Bishop claire.bishop@amiplastics.com. Tel: +44 (0) 1732 682948

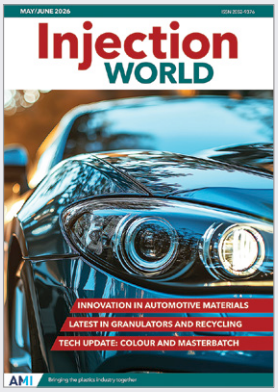
Keep informed: read our latest editions

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



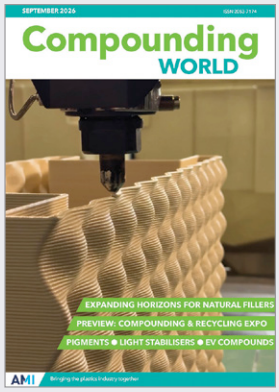
Injection World
July/August 2026
The ability of thermoplastics to break new ground in medical moulding is explored in the main feature of this edition of Injection World. Other articles cover recent developments in 3D printing and bio-based materials.

CLICK HERE TO VIEW



Injection World
May/June 2026
The cover story in the May-June issue of Injection World focuses on materials developed for the demanding automotive sector, while granulation technology and new masterbatch offerings are covered in other articles.

CLICK HERE TO VIEW



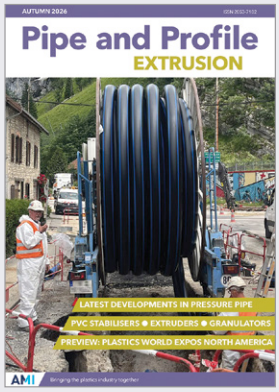
Compounding World
September 2026
Compound fillers derived from natural feedstocks are becoming more common, as detailed in the main feature of Compounding World's September edition. There is also a Preview of Compounding & Recycling Expo in Frankfurt and the latest in pigments and light stabilisers.

› CLICK HERE TO VIEW



Plastics Recycling World
September 2026
The Compounding & Recycling Expo in Frankfurt is previewed in the September edition of Plastics Recycling World. Recycling of food-grade polyolefins is explored in an opinion article and a feature, while sorting and granulating technologies are also covered.

› 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



Film and Sheet
September 2026
Film & Sheet Extrusion's September edition explores the impact of AI technology on masterbatch development, innovations in multilayer film, developments in plasticisers and new materials handling equipment.

› 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	**24-28 September**	Taipeiplas 2022, Taipei, Taiwan	https://www.taipeiplas.com.tw/en/index.html
	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
	10-13 November	Plastimagen, Mexico	www.plastimagen.com
	1-5 December	IPF Japan, Chiba	www.ipfjapan.jp
	2-5 December	PlastEurasia, Istanbul, Turkey	https://plasteurasia.com/en/
	14-16 December	RACE, Mumbai, India	www.raceexpos.com
2027	**2-4 March**	JEC World, Paris, France	www.jec-world.events
	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
	11-12 May	Moulding Expo, Stuttgart, Germany	www.moulding-expo.de

AMI CONFERENCES

23-24 September 2026 Compounding & Recycling Expo, Frankfurt, Germany

3-4 November 2026 Fire Resistance in Plastics, Düsseldorf, Germany

1-2 December 2026 Polymer Engineering for Energy, London, UK

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.injectionworld.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.