SEPTEMBER 2025

ISSN 2053-7174

Compounding WORLD

COLOUR IMPACT: PIGMENT DEVELOPMENTS

K2025 SHOW: MACHINERY PREVIEW

NEW ANTIOXIDANTS AND UV STABILISERS

AMI

Bringing the plastics industry together

Syklo makes wonders out of waste.

2025
8-15 OCTOBER
Düsseldorf, Germany

Meet us at Hall 7, Stand 72D17

Come and discover our advanced biocomposite and recycled plastic pellets.

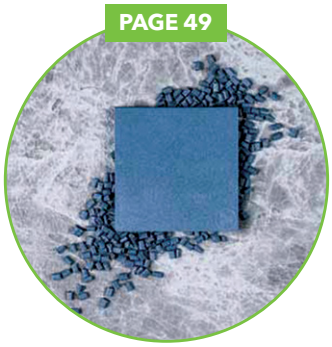
At Syklo, technology meets sustainability. We produce high-quality biocomposites and recycled plastic pellets for next-gen manufacturing – transforming plastic waste and bio-materials into high-performance, low-carbon solutions.

Available now, for your business and the planet.

syklo.com

Syklo

Compounding WORLD



COMING NEXT ISSUE

› K2025 Materials and Additives Preview › Nanocomposites › Recycling Additives

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

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

Contributing Editor:
Jennifer Markarian – jma@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

Head of Business Development: Paul Beckley
paul.beckley@amiplastics.com T/ +44 (0) 117 311 1529

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

Avient broadens recycled PC

Avient has launched expanded grades of its Edgetek recycled polycarbonate compounds to meet growing demand for materials that support sustainability in the electrical and electronics (E&E) industry in the Europe, Middle East, and Africa regions.

Initially launched in Asia, the Edgetek Recycled Polycarbonate (REC PC) solutions offer the high performance of a traditional PC with a significantly reduced carbon footprint based on their incorporation of post-consumer recycled (PCR) material. The regional extension of the product line includes PC and PC blends with 35% to 98% PCR content. This is in addition to 20% to 70% PCR content in previously launched grades.

These REACH and RoHS-compliant solutions can be used for applications such as device enclosures, sockets, and other aesthetic or structural E&E components intended to withstand harsh environments.

› **www.avient.com**

PureCycle installs rPP compounding line

US polypropylene recycler PureCycle said it is adding 100m lb (45,360 tonnes) of annual compounding capacity to its Ironton, Ohio, purification facility to help meet expected demand and better streamline its processes.

The company has already begun efforts to install a new twin-screw extruder with multiple feeders to enable the blending of specific resins for key customer applications.

The move is expected to eliminate approximately $4m of annualised third-party costs currently associated with producing the company's PureFive Choice resin, and will reduce the carbon footprint of PureCycle's overall supply chain.

IMAGE: PURECYCLE

The Ironton solvent-based recycling process facility in Ohio

The company produced 3.4m lb (1,700 tonnes) of resin in the second quarter of 2025.

According to its latest financial figures, it generated revenue of approximately $1.7m during the same period despite taking a planned outage to update and improve its flagship Ironton facility.

The Ironton plant started commercial-scale production in 2023 and currently has a total recycled PP capacity of 107m lb (53,500 tonnes) per year. It uses a patented solvent-based process originally developed by Procter & Gamble and utilises advanced automation technology to boost environmental benefits.

› **www.purecycle.com**

DuroColour makes acquisition

Colorant and functional additive producer DuroColour Australia has acquired the business of Inform Plastics, a specialty manufacturer based in Carole Park, Australia, as part of a move to expand its presence in the engineering plastics market.

The deal is said to represent a significant step in DuroColour expanding its manufacturing operations and elevates its regional presence.

DuroColour is controlled by US-based private equity firm Spell Capital Partners, whose diverse global portfolio of investments spans various industrial manufacturing businesses across North and South America, Asia, Australia, and New Zealand.

› **https://durocolour.com**

New Nordmann partnership in HFFRs

Distributor Nordmann has announced a new partnership with Liside making it responsible for the distribution and marketing of Liside's halogen-free flame retardants in Europe, including Turkey.

Liside's products are used in a variety of applications, including engineering plastics and PU coatings. Materials include PA 6, PA 66, PBT, TPEs, as well as specially developed grades for PET spinning and fibres.

Ralf Meier, Business Manager Europe Flame Retardants at Nordmann, said Liside's innovative flame retardants will endorse its existing portfolio of HFFR, synergists, and flame retardant masterbatches.

› **www.nordmann.global**

coperion

Unlocking Possibilities: Moving Boundaries in Plastics

At K 2025, Coperion presents a wide range of smart technologies and process solutions for the compounding and recycling of plastics. They are based on continuous innovative strength and ensure maximum throughput, product quality and efficiency.

K 2025 • Dusseldorf, Germany

meet us!

K 2025

October 8-15

Hall 14 • Booth B19
Hall 9 • Booth B34
“The Power Of Plastics Forum”
Open Area • FG/CE07

www.coperion.com/K2025

Coperion technology brands

coperion K-TRON | herbold

Clariant adds second stabiliser line in China

In response to high demand, Clariant has unveiled significant advancements in its stabiliser portfolio, including expanded production capacity.

Clariant's joint venture with Beijing Tiangang Auxiliary has successfully commissioned a second S-EED multi-functional stabiliser production line at its Cangzhou facility in China. The upstream Chinese polyamide industry's rapid expansion has been a key driver behind the increased demand for high-end additives like Nylostab S-EED, said Clariant. The new production capacity will enable it to better serve customers in both the textile and engineering plastics industries throughout China and the broader Asian market.


IMAGE: CLARIANT

Joint-venture Cangzhou facility in China

Nylostab S-EED has found success in artificial turf for sports fields as it provides protection against light, heat, and oxidation. (For more details about Nylostab S-EED, read the feature on antioxidants and stabilisers on page 39.)

› **www.clariant.com**

Ottobock and Lati partnership

German medical technology company Ottobock has partnered with polyamide compounder Lati to develop LATIMASS SP11 RS-11 D040 for use in prosthetics.

Ottobock said that in its prostheses, outstanding structural design is combined with top-tier materials which offer lightness, reliability, and durability. Due to stringent safety requirements, the need for smooth movement, and a service life exceeding three million cycles, the material selected needed to pass rigorous testing.

The result material is a compound based on PA 11 and heavily filled with bronze spheres. The chemical and physical nature of PA 11, combined with the mechanical and morphological characteristics of the metal particles, allows for the injection moulding of next-generation bushings with exceptional self-lubrication properties and outstanding wear resistance, said Lati.

› **www.lati.com**
› **www.ottobock.com**

IN BRIEF...

Colour masterbatch producer **Techmer PM** has named Craig Nikrant, Executive Chair of the Techmer PM Board, as incoming CEO. He replaces Michael A McHenry who is leaving the company.
www.techmerpm.com

German functional fillers company **Nabaltec** has confirmed revenues of €106.5m for the first six months of 2025, down 1.7% on the same period last year, with EBIT in the first half of the year at €8.9m (down 18.5%). The company expects 2025 revenues as a whole to be down by up to 2% from last year.
https://nabaltec.de

IT equipment group **HP** has collaborated with suppliers to complete a brand closed-loop recycled materials certification project, audited by TÜV Rheinland Taiwan according to international standards. This initiative sets a new benchmark for e-waste recycling while demonstrating HP's commitment to sustainability development, said the company.
› **www.hp.com**

European Commission opens investigation

The European Commission has opened an investigation into Adnoc's acquisition of Covestro under the Foreign Subsidies Regulation (FSR) after a preliminary examination indicated that Adnoc and Covestro may receive UAE subsidies.

The Commission said it has concerns that the subsidies may have enabled Adnoc to acquire Covestro at a valuation not in line with market conditions, and that the transaction could impact competitive conditions.

The FSR says entities must notify the Commission when at least one of the merging companies, the acquired company, or the joint venture, is established in the EU and generates a turnover of at least €500m, and when the parties are granted €50m or more in combined aggregate foreign financial contributions from third countries in the three years prior to the concentration.

› **https://commission.europa.eu**

Shamrock TECHNOLOGIES

Join our webinar

Boost Polymer Performance:

Additives for Thermoplastics & Elastomers

WEBINAR PRESENTER
Dr. HyunSeog Kim
PhD, Senior R&D Engineer

Shamrock Technologies invites you to our upcoming webinar, **"Boost Polymer Performance: Additives for Thermoplastics & Elastomers"**- an overview of additive technologies designed to enhance thermoplastic and elastomer formulations. Whether you work in automotive, electronics, consumer goods, or packaging, this webinar and subsequent live Q&A will provide valuable insights into improving wear resistance, friction control, and sustainability in your applications.

Date: October 1st, 2025

Time: 11:30AM-12:00PM Eastern Standard Time (EST)

Location: Online – Microsoft Teams

Reserve your spot

Click the green registration button on ShamrockTechnologies.com homepage

Register now

Webinar Topics

- **Thermoplastics & Elastomers Fundamentals**
- **Performance Enhancement with Micronized Powders**
- **Sustainable & Regulatory Solutions**

Live Q&A Session

Ask our experts about your specific formulation challenges and application needs.

Coperion supplies extruders for Brückner biax film products

Strengthening long-standing links between the two companies, film stretching line manufacturer Brückner Maschinenbau, a member of the Brückner Group, has expanded its partnership with Coperion by awarding it a volume contract for ZSK twin screw extruders in the ZSK Mc^{18} series.

"Together, we have already successfully completed numerous projects," said Cornelia Koch, Business Segment Manager Direct Extrusion at Coperion. "With the comprehensive expertise of our two companies, we have been able to develop many innovative solutions over the years that have increased the throughput rates of Brückner film stretching lines, boosted their efficiency, and improved film quality."

Brückner initially used Coperion ZSK extruders for BOPP film lines before the range of applications expanded and Brückner began using ZSK extruders to implement lines for BOPET, BSF, and BOPA films.

Thanks to a high torque, this particular range of extruder can achieve very high throughputs while maintaining low product temperatures, said Coperion.

› **www.brueckner-maschinenbau.com**
› **www.coperion.com**

Songwon feeling the strain

South Korean specialty chemical producer Songwon achieved consolidated sales of 265.4bn KRW ($191.6m, approximately) in Q2 2025, marking a decrease in revenue of 3.0% from 2024. The company, which is a leading supplier of polymer stabilisers, said it continues to face challenges such as subdued global demand, geopolitical uncertainties, and ongoing margin pressure across key regions.

Despite these issues, Songwon has announced two major new distribution agreements: with TCL Hofmann in Australia and New Zealand and with Biesterfeld Spezialchemie in Romania, Bulgaria, Croatia, Montenegro, Bosnia & Herzegovina, Kosovo, and North Macedonia.

› **www.songwon.com**

First model of Feddem lab extruder gets delivered

German machine manufacturer Feddem has delivered the first model of its newly developed FED 18 MTS laboratory extruder to Polyram-MCT Germany, which is currently undergoing comprehensive modernisation at its Bad Oeynhausen site.

The FED 18 MTS is used primarily in the development of thermoplastic elastomers and talc-reinforced and glass fibre-reinforced polypropylene, under realistic conditions with parameters in line with those used in series production.

"With the FED 18 MTS, we are expanding our extruder portfolio with a new, compact size," said Dieter Groß, Managing Director at Feddem. "The extruder offers maximum flexibility and precision – ideal for use in laboratory environments, technological development centres, and as a pilot plant for the production of sample quantities and small batches."

IMAGE: FEDDEM

The FED 18 MTS extruder has been installed by Polyram-MCT Germany

The extruder's modular design allows flexible adjustment of the process length from 32 L/D to up to 52 L/D without changes to the frame, cooling system, or control system, and dosing devices can be integrated directly to save space.

The FED 18 MTS will be exhibited for the first time at K2025 (see K2025 Preview on page 25).

› **https://feddem.com**

No Hype.

Just continuous ... sustainability.

TRADE SHOW PAGE
www.farrel-pomini.com/k

FARREL
INNOVATORS
SINCE 1848

FCM™
FARREL
CONTINUOUS
MIXER
ENHANCED
SINCE 1963

MEET US AT
K
OCTOBER 8 – 15, 2025
DÜSSELDORF | GERMANY
HALL **9** STAND **A16**

PHONE +1 203 736.5500

#pvc
#hffr
#flooringcompound
#biodegradables
#whitemasterbatch
#blackmasterbatch
#highlyfilledmasterbatch
#recycling

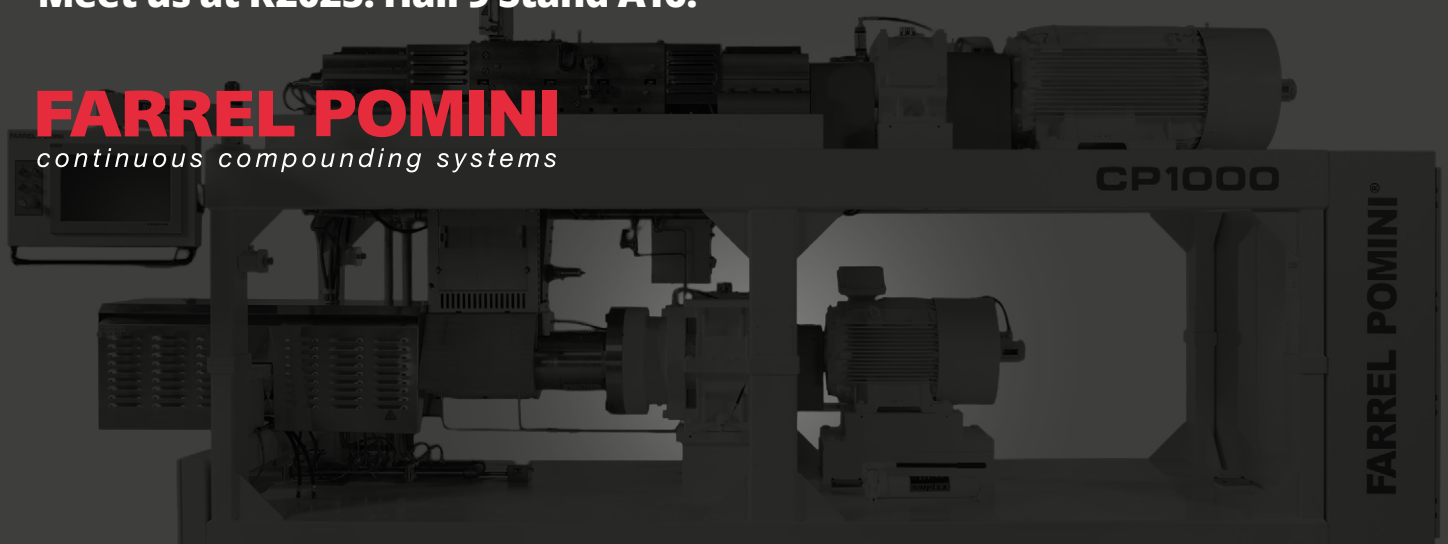
Our systems don't promise change. They enable it. **FCM**™, Farrel Continuous Mixing technology is advancing circularity in the plastics industry with unique compounding, masterbatch, and recycling solutions. Sustainability through innovation.

READ MORE: www.farrel-pomini.com/k

Will you learn how the FCM™ can transform your approach to circularity?

Meet us at K2025. Hall 9 Stand A16.

FARREL POMINI
continuous compounding systems



KraussMaffei unveils new CFP technology

KraussMaffei is launching its new Chopped Fibre Processing (CFP) direct compounding technology at the K2025 show next month, the machinery company has announced.

The CFP technology enables separate dosing of PP and glass fibres in the injection moulding process for the first time. Both can be supplied directly via the machine's conveyor system, homogenized, and processed with the help of the new CFP screw. This means no fibre clusters are formed during processing, thus ensuring optimum component properties at reduced cost.

"With the unique CFP technology, we offer our customers a true game changer that significantly reduces their material costs in the production of fibre-reinforced components," says Jörg Stech, CEO of KraussMaffei Technologies. "We are particularly proud of the heart of the new CFP technology, the patented screw geometry, which was developed specifically for the technology."

IMAGE: KRAUSSMAFFEI

In Chopped Fibre Processing, PP and glass fibres are directly dosed in the injection moulding process

As the technology enables plastic processors to individually dose and mix polymers and fibre, it allows them to develop their own formulations for components and build up material expertise, giving them a targeted competitive advantage, according to the company. At the same time, savings in material usage reduce costs by up to 30% and facilitate a noticeable reduction in the product carbon footprint through inline compounding.

Other positives include compatibility with KraussMaffei machine series and easy retrofitting. Visitors to K2025 can experience the CFP technology on the company's stand. (See the Preview on page 25.)

› **www.kraussmaffei.com**

Venator aims to sell businesses

Administrators have been appointed to Venator Materials plc, the non-trading, holding company in the Venator Group, a producer of titanium dioxide pigments among other chemicals. The main UK trading company Venator Materials UK Ltd, remains trading as normal, outside of any insolvency process. The group's US and French businesses also continue trading as normal.

The administrators, together with the Venator leadership team, will be working to progress a sale of the UK businesses operating from Greatham, Wynyard and Birtley. Sale processes will also be initiated for other entities across the group.

Venator Group has been severely impacted by increased competition and rising costs in recent months, said the administrators.

› **www.venatorcorp.com**
› **www.alvarezandmarsal.com**

South Korea gets first HVO/SAF plant

LG Chem and Enilive have broken ground on South Korea's first hydrotreated vegetable oil (HVO) and Sustainable Aviation Fuel (SAF) production plant at LG Chem's Daesan Chemical Complex in Seosan, Chungcheongnam-do, 80 km southwest of Seoul.

Demand for HVO and SAF is expected to surge in the wake of renewable fuel mandates. Target applications include acrylonitrile butadiene styrene (ABS) for electronics and automobiles, ethylene-vinyl acetate (EVA) for sporting goods, and super absorbent polymers (SAP) for hygiene products.

The plant is to be constructed under the LG Chem and Enilive joint venture, called LG-Eni BioRefining, and will process approximately 400,000 tonnes/yr of renewable bio-feedstock. It is scheduled for completion in 2027.

Shin Hak-Cheol, CEO of LG Chem, said that by advancing innovation in renewable fuels and bio-based feedstocks like HVO, the company aims to strengthen its global competitiveness and meet the evolving needs of customers.

Enilive, part of Eni, operates biorefining plants in Italy and the US, and is building more facilities in Italy and Malaysia, with a 2030 target to increase its biorefining capacity to over 5m tpa.

› **www.lgchem.com**

Heliogen®

Unrivalled purity.
Unstoppable performance.

SunChemical®
a member of the DIC group
DIC Color & Comfort

Heliogen® blue and green pigments deliver ultra-high purity, high colour strength, and long-term weathering stability – making it the ideal solution for the most demanding plastic applications, from toys and food packaging, to fibres and automotive.

Consistent quality and tightly controlled production, meanwhile, ensure compliance with even the most stringent safety and performance standards.

Visit us at K 2025 – Hall 8B, Stand A53 – to future-proof your formulations.

2025
8 -15 OCTOBER
Düsseldorf, Germany

Scan to see the Heliogen® colour options in blue and green

AMI | Events

PVC Formulation

15-17 September 2025 | Düsseldorf, Germany

The right people. The right conversations.
Meet representatives from all of these companies and more in Düsseldorf.

SECURE YOUR PLACE

Asua
Holland Colours
Hexpol
Kisuma Chemicals
PMC
Benvic
RENOLIT
Arlanxeo
Petkim
3M
Penn Color
REHAU Industries
Scantarp
Sika
Heytex
Songwon
Forbo-Novilon
Westlake
VinylPlus
Decathlon
Profine
Monteiro Fabrics
Mohawk
BYK Chemie
FPC Industries
Hanser Publications
INOVYN
Galata Chemicals

Sponsored by: Tolsa DELTATECNIC ExxonMobil

Global plastics treaty talks end without resolution

The latest United Nations Intergovernmental Negotiating Committee (INC-5.2) talks around a global plastics treaty to combat pollution collapsed last month in scenes described by some media outlets as "chaotic".

The UN negotiations, the sixth round of talks in less than three years, were due to end on 14 August but finished prematurely with a group of about 100 nations pushing for curbs on production. Most oil-producing nations view plastics made with fossil fuels as a vital part of their economies and thus want the focus of the treaty to instead be on recycling.

"Securing a legally binding treaty to end plastic pollution would be a win for people, the planet, and future generations," said Benny Mermans, Vice-President Sustainability at CPChem and Chairman of the World Plastics Council. "To achieve this, all parties must recognise that countries and regions face different challenges and have different perspectives. We must not let diverging ambitions get in the way of real-world progress."

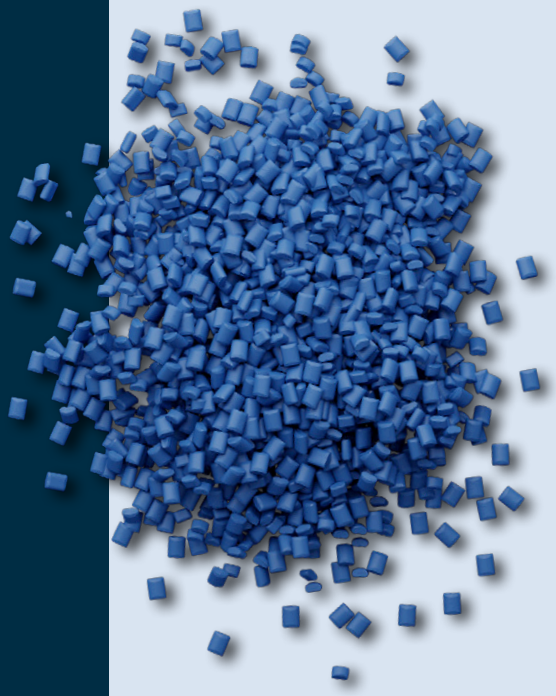
Meanwhile, Matt Seaholm, President and CEO of the US Plastics Industry Association called the talks a "missed opportunity" and claimed, "there was an unwillingness among some participants to focus on addressing plastic waste, instead pushing approaches that made it impossible to reach consensus".

Virginia Janssens, Managing Director at Plastics Europe, added: "We believe the agreement needs measures promoting sustainable production and consumption, effective waste management for the 2.7bn people who currently live without them, and to ensure reporting frameworks that enable a just transition to a circular economy. We want end-of-life plastic to become a circular feedstock and commodity with real value rather than waste that is littered, landfilled or incinerated."

- **https://worldplasticscouncil.org**
- **www.plasticsindustry.org**
- **https://plasticseurope.org**

Find your

Perfect color match



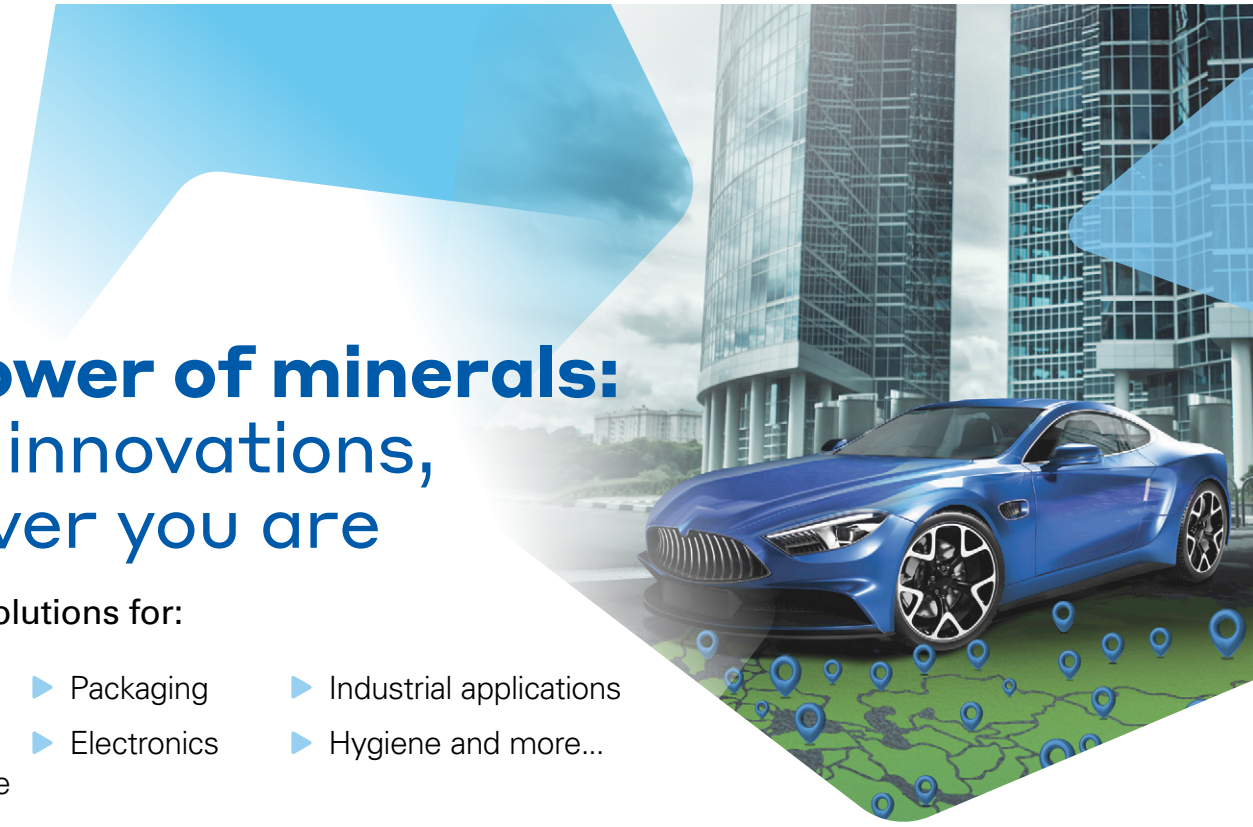
Complete color profiles. Small-scale samples. Guidance and customization in the coloring of compounds based on high-quality virgin and recycled plastic materials. Consistent shades with every delivery, no matter where in the world you need your compound.

We help you find the right color for your product.

Read more →

polykemi

IMERYS



The power of minerals: smart innovations, wherever you are

Discover our solutions for:

- Automotive
- Construction & infrastructure
- Packaging
- Electronics
- Industrial applications
- Hygiene and more...

Let us know how we can help you

Meet our experts at K 2025!

Booth F40 (Hall 8A) **October 8-15** – Düsseldorf, Germany

2025 8-15 OCTOBER Düsseldorf, Germany

Colour impact: suppliers boost their offerings

*Colour pigments and masterbatches for thermoplastic compounds aim for high visual appeal with a lower environmental impact. **Jennifer Markarian** reports on the latest products*

Colour in thermoplastic compounds provides visual appeal, brand recognition, and sometimes a critical function, such as the orange signifying high voltage cables and connectors. But choosing a colour pigment goes beyond a colour match to include performance and regulatory requirements. In addition, environmental impact is gaining importance for all ingredients of compounds, including colours.

Colour requirements for thermoplastic compounds have become increasingly technical and complex, and regulatory requirements are influencing the selection of pigments that can be used, said Lars Schulze, Head of Colour Development and Material Sciences at **Grafe**. A trend is for colouration of more complex, demanding formulations, such as combining colour with highly filled or flame-retardant compounds. Recycled materials and bio-based compounds (discussed later in this article) are a new focus in colour development.

A megatrend is the reduction of the environmental impact of chemical activities, added Klaus-Dieter Baumgart, Chief Technology Officer of **Sudarshan Chemical Industries** (SCIL). Reduced environmental impact includes increasing use of bio-based and biodegradable materials, reducing trace impurities in pigments, and minimising the product carbon footprint (PCF) of colour solutions. "At Sudarshan, we are actively engaged in transforming waste or by-products into new products to avoid landfill or incineration. For example, during Pigment Green 7 production, sizable amounts of aluminium sludge are generated, which are purified and converted into aluminium oxide [for applications including cosmetics]. Another example is the conversion of diluted waste phosphoric acid from quinacridone production into calcium hydrogen phosphate. All these activities contribute to Sudarshan's drive to

Main image: Ampacet's new Kaleidoscope masterbatch collection for transparent colours uses solvent dyes

IMAGE: AMPACET

IMAGE: SHUTTERSTOCK

Pigment producer organisation Eurocolour has welcomed a decision by the European Court of Justice, which confirmed that titanium dioxide powders had been wrongly classified as suspected carcinogens, and that solid mixtures, such as masterbatches, had been wrongly required to display an EUH212 statement on their labels. As a result, the classification and labelling requirements were repealed

reduce carbon dioxide emissions across the pigment lifecycle," explained Baumgart.

Pigments also play a role in enhancing recycled plastics. Near infrared (NIR)-detectable black pigments, as an alternative to carbon black, enable black plastics to be sorted by NIR-detection in recycling facilities. "Another key trend is colour consistency in recycled plastics. With the increased use of post-consumer recycled materials, pigments that maintain colour strength and stability over multiple processing cycles are in higher demand," said Baumgart.

Pune, India-headquartered SCIL made headlines in March this year with the completion of its acquisition of Germany-based Heubach Group, which had become the second largest global pigment company after its integration with Clariant's pigments business in 2022. "Sudarshan already possessed one of the most extensive product portfolios in the colourant industry, covering organic pigments of all kinds (eg azo, isoindolinone, dioxazine, phthalocyanine, quinacridone and diketopyrrolopyrrole pigments), in addition to pearlescent and inorganic pigments from our Indian production sites," said Baumgart. "With the Heubach Group acquisition, we now offer over 1,600 products and serve customers in more than 120 countries. Our manufacturing footprint has expanded to 19 sites across 11 countries. We address regional needs through a technical marketing set-up located within the respective regions, ensuring proximity to our customers and a deep understanding of local demands. This integrated global presence enables us to provide localised products, tailored services, and more flexible, shorter transportation routes, contributing to a reduced PCF."

The company said that the acquisition combined SCIL's operations and expertise with Heubach's technological capabilities, noting that SCIL was addressing Heubach's financial challenges with a clear turnaround plan. The transaction was completed on schedule, and integration has begun, with the goal of operating as a fully integrated global company within a year. The company said that Germany remains a strategic location, and that the company's second global headquarters would be established in the Frankfurt area.

"The combined company builds on the rich legacies of both Sudarshan and Heubach. Our goal is now to create the world's most valuable pigment company with great financial strength and profitability. Together, we will drive continuous innovation and deliver breakthrough solutions that benefit each of our stakeholders," said Rajesh Rathi, Sudarshan's Managing Director and Chairman of the combined entity.

"Sudarshan's innovation centres are developing solutions with high temperature and chemical resistance for engineering plastics, while ensuring compliance with strict purity requirements for sensitive applications such as direct and indirect food contact. We are also collaborating with start-ups to explore new technologies in colourants, including fermentation-based processes and bio-based raw materials," added Baumgart.

Investment and regulation

The **Shepherd Color Company** announced phase two of an expansion of its complex inorganic colour pigment (CICP) facility in Cincinnati, Ohio, US. The first phase increased capacity by 15%, and the second phase was expected to have similar investment and benefits.

One example of a new application for the company's Arctic IR black pigments is in black food containers, where the pigments meet NIR-sortability criteria for recycling facilities, said Mark Ryan, Market and Product Manager at Shepherd Color. Additionally, a trend in engineering polymers is increased interest in colours beyond black, he added. Shepherd Color offers a range of colour pigments with high-temperature resistance to allow use in a wide range of engineering polymers for branding or functionality.

Changes in regulations are an ongoing challenge for manufacturers and users of pigments. In Europe, there seems to be a welcome shift in approach by the European Commission to emphasise the importance of competitiveness and simplification, said Anne Thüsing, head of Communications at **Eurocolour**, a European umbrella organisation for manufacturers of pigments, dyes,

POWER + CONTROL = PERFECT MIX

mixron MDB
heating and cooling mixer

Perfect thermal control for perfect Dry-Blend

- Powerful Turbo Mixer
- Fast cooling and perfect thermal control
- Superior mechanical components
- Available for both soft & rigid PVC Dry-Blend
- Customizable in tools & sizes
- Full control of mixing parameter

Mixron is a WAMGROUP® company capable of offering the market a large variety of mixing systems for bulk materials, in particular for PVC Dry-Blend, WPC, Masterbatch, Powder Coating, and Li-ion Battery Powder.

The range of products includes turbo mixers, cooler mixers, container mixers and a wide offer of accessories.

All Mixron's products aim to improve blend quality and enhance ease of use, while maintaining maximum customer value.

YOU CAN FIND US AT:

Düsseldorf, Germany
8 - 15 October
Hall 10, Stand B17

mixron

www.mixron.it

made in italy

fillers, frits, ceramic and glass colours, and ceramic glazes in Europe. For example, amendments to the Corporate Sustainability Reporting Directive (CSRD) have postponed reporting deadlines by two years, and the company size threshold for reporting may be raised. On the other hand, said Thüsing, pigments for thermoplastics, along with other raw materials, face increased regulatory pressure.

"The revision of the REACH Regulation, which had already started under the previous Commission mandate, currently poses considerable uncertainties for the raw material industry," she said. "It was announced to be finished in Q4 2025 as part of the chemicals industry package, but it is still unclear whether the promised simplification of REACH will benefit companies. The continuous discussion on aspects such as the generic risk approach, essential use, registration of polymers, as well as additional requirements for the use of nanomaterials, suggests that the focus is on further demands and bureaucratic hurdles rather than simplification for the industry."

Thüsing added that the EU Commission's move to classify solely on particle properties is a particular concern for pigment and filler manufacturers. "We maintain our call for reasonable regulations on particles and dust. When particulate substances such as pigments and fillers are incorporated into a matrix such as plastics, there is no exposure to dust and therefore no risk. For this reason, restrictions of use based on the effects of excessive particle inhalation studies (lung overload studies) hardly make sense," she said.

Eurocolour welcomed the August 1 decision by the European Court of Justice, which confirmed that titanium dioxide powders had been wrongly classified as suspected carcinogens, and that solid mixtures, such as masterbatches, had been wrongly required to display an EUH212 statement on their labels, said Thüsing. As a result, the classification and labelling requirements were repealed.

Compostable colourants

SCIL recently announced that seven pigments from its Sudaperm and Sudafast product ranges were awarded OK Compost certification by TÜV Austria. "This certification confirms that our pigments meet rigorous standards for industrial compostability in accordance with EN 13432, the recognised

Compounds Made of Engineering Plastics

Tisan

SMART POLYMERS

COMPETITIVE SOLUTIONS

SUSTAINABLE SOLUTIONS

Compounds Made of Engineering Plastics

MAH-g

Maleic Anhydride Grafted Series

Hyperpol® PPS and PPA COMPOUNDS	**Tislamid®** PA6 and PA6.6 COMPOUNDS	**Tisester®** PBT COMPOUNDS
Tisakril® ABS COMPOUNDS	**Tisarbon®** PC COMPOUNDS	**Tisaform®** POM COMPOUNDS
Tisapet® PET COMPOUNDS	**Tisoplen®** PP COMPOUNDS	**Tisren®** PS COMPOUNDS
Tisetilen® PE COMPOUNDS	**Tisblend®** BLEND COMPOUNDS	olebond ecoSTAR

2025

8-15 OCTOBER

Düsseldorf, Germany

VISIT US

Hall: 8A STAND:K-08

www.tisan.com.tr

IMAGE: DELTA TECNIC

Above: Delta Tecnic says its cool pigments can reduce thermal increase in sun-exposed plastics by up to 30%

European standard for compostable materials," the company said. "With growing global awareness around the environmental impact of plastic waste, industries are increasingly shifting toward biodegradable and compostable materials. Our certified pigments enable manufacturers to create vibrantly coloured, compostable products without compromising on performance."

The certified colourants are: Sudaperm Orange 2917 (Pigment Orange 64), Sudaperm Pink 2991 (Pigment Red 112), Sudafast Blue 2764 (Pigment Blue 15:1), Sudafast Blue 2789 (Pigment Blue 15:3), Sudafast Green 2730K (Pigment Green 7), Sudaperm Yellow 2927 (Pigment Yellow 110) and Sudaperm Red 2963K (Pigment Red 170). The pigments are designed for use in biodegradable plastics, such as PLA, PHA, PBS, and PBAT.

The latest from Grafe is the Biocolen product line for colouring of bio-based, compostable plastics, such as PLA, PHA, or PHBV. Grafe provides both standard and custom colours for bio-based plastics and offers support for the TÜV Austria certification process of compostable plastic end products. Grafe said it ensures that the ingredients used in its Biocolen masterbatches and compounds meet certification requirements and works toward not adversely affecting the testing of the end product. In particular, Grafe performs in-house tests for heavy metals to meet the limits specified in DIN EN 13432. The company offers a range of carrier materials, or customers can provide their own polymers to test suitability as carriers. A wide range of colours, including pastels and signal colours, offers design freedom.

Mike Haubert, Managing Partner at compound and masterbatch supplier **Mosaic Color and Additives**, based in South Carolina, US, explained that for compostable applications, the company uses bio-based polymer carriers and pigments with the OK Compost certification. In addition, it uses non-petroleum-based lubricants. "We are looking at domestic and sustainable sourced pigment alternatives to reduce our dependence on imported colourants. Our sustainable pigments, fillers and domestic supply allows us to deliver the lowest LCA [lifecycle analysis] possible for this industry," Haubert said. "For compostable plastics, a wide colour palette is available that allows for great design options from fiery reds to cool turquoise and all points in between."

Colour and additives combined

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

Late last year, Chroma Colour introduced the ChromaFresh line of concentrates, which combine colour with scent additives. The company says these concentrates are useful for consumer-focused applications where they enhance sensory appeal and help differentiate products, as well as industries including automotive, healthcare and pet products, for which they can be used to neutralise unpleasant odours. Another use is in masking unwanted odours in post-consumer recycled materials.

The company also launched ChromaXLPEUltra high-intensity colour concentrates for crosslinked polyethylene (XLPE) applications used in harsh environments, such as construction, mining, refineries, nuclear/hydrogen plants, transcontinental power transmission, and aerospace, as well as the growing automotive and transportation markets such as electric vehicles and hydrogen. The concentrates combine pigments and additives that can be used at low loading levels (eg 1-2%) for VW-1 vertical flame ratings, the company said.

Late last year, Illinois, US-headquartered Chroma Colour acquired California-based masterbatch supplier Spectra, expanding Chroma Colour's geographic reach and product offerings. Spectra has been supplying compounds, colourants, and additives for more than 45 years, and serves markets including medical, healthcare, agriculture, consumer products, among others, the company said.

Tosaf launched a portfolio of masterbatches combining UV stabilisers and colours to meet application-specific requirements in soil mulch films, which are exposed to degradation by UV light and varying levels of agricultural chemicals. The company offers three types of UV stabilisers that depend on the level of chemical exposure. Colour

Visit us at the
2025
8-15 OCTOBER
Düsseldorf, Germany
Hall 9/521

Container Mixer
Multitool™

Where innovation meets your ambition

Minimal heating of the mix due to patented Multitool™ technology: Only 0.5-1 °C per minute

Drastic energy savings due to energy optimzed motor drives

Very short mixing times of 3-6 minutes

Degree of comminution adjustable by individual tool speeds

Sizes from 50 – 2000 liters volume (useful volume = 80 %)

No melting and adhesion due to temperature neutrality

MIXACO
Dr. Herfeld GmbH & co. KG
Niederheide 2 - 58809 Neuenrade - Germany
Tel. +490239209644-0
info@mixaco.de

DE AMICIsrl
Via Pietro Calvi 19 - 20129 Milano - Italy
Sales Director Ing. Roberto Atesini
Tel. 0039 334 250596
atesini@deamici.com - www.deamici.com

MIXACO.COM

made in germany

Coloured PCR wins packaging award

The challenges of using post-consumer recycled (PCR) plastics in new packaging require innovation from various players in the value chain, including colour suppliers. **Feddersen Group** and its partners, including masterbatch supplier AF-Colour, recently received a German Packaging Award in the "Sustainability – Use of Recyclates" category for its approach to a container made from 50% PCR polyethylene and 50% high-density polyethylene. The PCR material used in the container came from recycled beverage cartons. The recyclate was coloured with AF-Colour PCR masterbatches in blue, black, and silver.

IMAGE: AF-COLOUR

requirements also vary, and some films have multiple layers with different colours on each side. For example, silver or white can be used in the layer facing up and black in the layer facing down.

"[Silver/white] reflects radiation to prevent the overheating of seedlings, plants and fruit, enhances photosynthesis and repels pests; and the black colour prevents the penetration of light and reduces the germination of weeds," the company explained. "A yellow colouring (ME201154, free of heavy metals), as well as silver (ME955376), repels insects and thus prevents and delays the transmission of viruses."

Silver can be a particular challenge because it can accelerate polymer degradation. Tosaf recommends a unique UV stabiliser formula for silver-coloured multilayer films that takes this effect into account.

Cool pigments

Delta Tecnic developed masterbatches of cool pigments that reduce thermal stress and expand the useful life of plastics. The company said its solutions are not limited to light shades but can allow use of vibrant colours without reducing thermal stability. In outdoor plastic products such as window profiles, high surface temperatures can cause deformation and loss of mechanical properties. The cool pigments can reduce thermal increase in sun-exposed plastics by up to 30%, the company reported.

The company has also launched innovative masterbatches for cable insulation that can reduce the amount of masterbatch used without affecting the colour. A higher pigment concentration without affecting dispersion can cut the masterbatch use from 2% to 1%, on average. "We are helping the industry take a step forward in terms of efficiency, sustainability and profitability," said Andreu Carol, CEO of Delta Tecnic.

New dye formulations

Epolin sees a growing use of dyes in plastic compounds: for light management, to alter colour, transmission, or other light properties; in filtering of environmental interference (eg sensors and LEDs); and in eye safety applications, which are growing globally. New products from Epolin include formulations for colour and contrast enhancement of optical lenses, a pelleted PC masterbatch for arc flash safety applications, and new welding dye formulations that meet the upcoming ISO 16321 welding standards.

Ampacet's new Kaleidoscope masterbatch collection uses solvent dyes and is a palette of transparent colours: Twilight Prism, Fuchsia Dream, Azure Veil, Transforming Teal, Evergreen Echo, Vivid Volt, Neon Nectar and Sunset Splash. The colours are compatible with polystyrene and polycarbonate for applications in housewares, consumer electronics, toys, appliances, and lighting, for example.

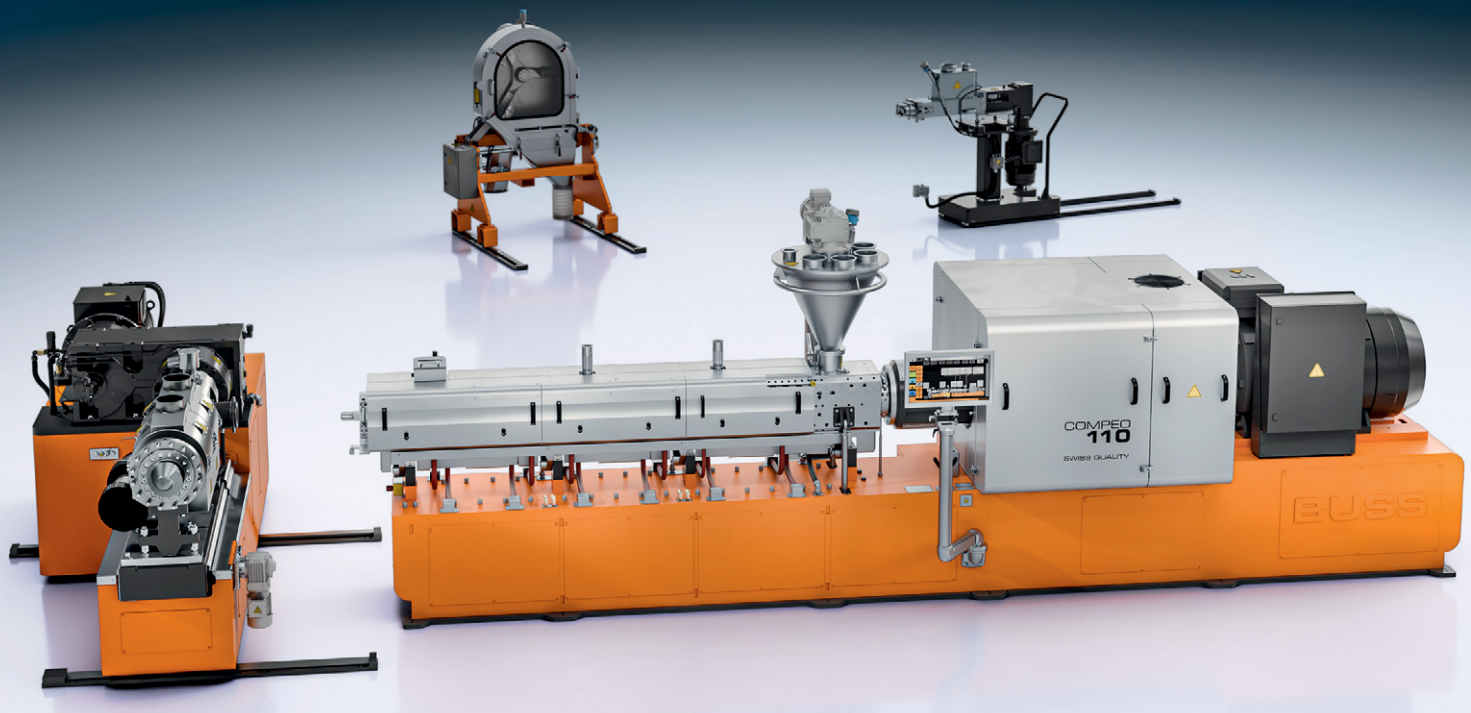
"By layering these vivid, translucent colours, designers can add unparalleled depth and visual excitement to a wide range of consumer products," said Mercedes Landazuri, Ampacet Market Insight Manager.

The company recently launched a Digital Design Library that allows designers to integrate Ampacet's colours and effects in a 3D rendering program. The digital replicas are available in multiple resins and accurately portray the material's inherent reflective properties, the company said.

CLICK ON THE LINKS FOR MORE INFORMATION:

- **www.grafe.com**
- **www.sudarshan.com**
- **www.shepherdcolour.com**
- **https://eurocolour.org**
- **http://mosaiccolor.com**
- **https://chromacolours.com**
- **www.tosaf.com**
- **https://deltatecnic.com**
- **https://epolin.com**
- **www.ampacet.com**
- **https://feddersen.group/en**

#CompoundingExcellence



Complete
Compounding Solutions

Engineered Around Your Process

We don't just manufacture compounders, but also peripheral units. At BUSS, we define and deliver complete compounding solutions – from tailored process engineering and system design to production and lifecycle management.

With decades of process expertise and in-house manufacturing of compounders and components like feeding units, discharge units, and pelletizers, we engineer the optimal compounding system for your application: Precise, reliable, and as unique as your production demands.

Based on the patented BUSS kneading technology, we have you covered from intake over compounding to final compound.

www.busscorp.com

BUSS
excellence in compounding

COMPOUNDING WORLD EXPO

NORTH AMERICA

November 12-13, 2025 | Cleveland, OH

Co-located with:

- PLASTICS RECYCLING WORLD EXPO
- PLASTICS EXTRUSION WORLD EXPO
- POLYMER TESTING WORLD EXPO

REGISTRATION **NOW LIVE!**

CLICK HERE TO REGISTER FOR FREE >

Source new systems, technologies and solutions

Your **FREE** ticket includes:

- 4 trade shows
- 4 conferences
- 300+ exhibitors

New theme for 2025:
AI in the plastics industry

> *"Great opportunity to meet with new potential vendors and get a feel for market trends and the new tech out there!"*
>
> Bharath Kolli, Saint-Gobain

Brought to you by: AMI

BOOK YOUR BOOTH

LIMITED BOOTH SPACE REMAINING - BOOK NOW TO AVOID **DISAPPOINTMENT** >

Compounders' guide to K 2025

Machinery and equipment

The latest edition of the K show runs from 8 to 15 October 2025 in Düsseldorf, Germany. This edition's theme is: The Power of Plastics! Green – Smart – Responsible, reflecting the industry's values and targets. The last event in 2022 was attended by 3,020 exhibitors from 59 nations and visitors from 167 countries. Particularly well represented were exhibitors from Europe, Asia, and the US, with a total of 71% of visitors hailing from outside Germany.

K2025 looks set to follow a similar pattern, with 177,000 m² of exhibition space across 18 halls already booked and Europe once again strongly represented. The fair also reflects changes in the global market with the number of companies from Asia, particularly China, India, and Taiwan, remaining at a consistently high level.

As in previous iterations, the organiser Messe Düsseldorf has lined up some special features to attract certain demographic audiences. Among the highlights promises to be the Start-up Zone, which successfully debuted in 2022 and will once again provide a platform for newcomers to the industry, and the return of the Science Campus where universities, colleges, and institutes, can present their latest research findings.

New for K2025 will be the addition of a Women in Plastics networking event featuring panel discussions and talks, and a Young Talents Lounge which aims to help address the well-documented recruitment problems in the industry.

In this exhibitor preview, *Compounding World* focuses on major machinery and equipment companies that serve the thermoplastic compounding sector. In the next issue, the K2025 preview will highlight materials and additives companies exhibiting at the fair.

Messe Düsseldorf says the plastics industry has faced a "global crisis" since K2022. In response, it says K2025 will showcase a "plethora of new and further technological developments" – as digitalisation and artificial intelligence (AI) emerge as key themes. Connected machines have been available on the market for several years, providing a large volume of process data. The EU Data Act has provided clarity for industry, as it obliges machine manufacturers to make data generated during operation available to the machine user in a simple and comprehensible machine-readable form.

The advantages of connected machines using OPC UA standards are also increasingly being recognised by customers. This development is being given a boost by AI – with several solutions and products expected at K2025. Examples include: automatic design and process optimisation; predictive maintenance; and optical quality control.

If you are planning to attend the show but are yet to finalise your travel and accommodation, it is not too late. But you should act fast. There are some useful weblinks at the foot of this page and plenty more in the '**First Look**' article in the August issue of Compounding World.

The *Compounding World* editorial team will be at K2025 and will be gathering information for our post-event coverage later this year. We will also be reporting on the latest news and innovations as they happen via our @PlasticsWorld feed on X.

Dates: 8-15 October 2025
Venue: Dusseldorf Fairground, Dusseldorf, Germany
Hours: 10:00 to 18:30 daily
Advance tickets: One-day €60, three-day €125.
Note: ticket price no longer includes free local transport
Organiser: Messe Dusseldorf
Website: www.k-online.de

Use the following links to go direct to essential show information:

- **K2025 hotel booking**
- **K2025 online ticket purchase**
- **K2025 exhibitor search**
- **K2025 iOS/Android apps**

Right: Infrared rotary drum technology from B.IRD Machinery

Bausano has developed the E-GO R series of extrusion and repelletising technologies for the recycling of polyolefins, such as HDPE, LDPE, and PP, derived from industrial and post-consumer waste. The E-GO R extruders, ranging from 45/37 to 210/37 L/D, can process up to 1,500–1,800 kg/hr of non-free-flowing material and 1,700–2,000 kg/hr of free-flowing material.

The company says E-GO R extruders are ideal for recycling lightweight materials with a moisture content of 5-6%. Thanks to a high-performance double degassing system, residual moisture and volatile substances are removed during the process, thus preventing the formation of defects in the pellets.

Bausano says innovation will takes centre stage with two live demos on its stand. Visitors will have the opportunity to interact directly with the AI-based Bausano Ranger interface, one of the suite's core modules, installed on two high-performance extruders: a counter-rotating twin-screw MD 130/25 for compound production; and a single-screw E-GO 60/37 for multilayer HDPE pipe manufacturing.

› **www.bausano.com**

BBE will be appearing together with its parent company **Barmag** and associated brands, showcasing its expertise in extrusion, filtration, and integrated recycling solutions. A highlight promises to be the open house event at the BBE Technical Centre, which will feature a team of experts and live demonstrations showing PET waste being recycled on the test facilities and spun directly into high-quality recycled yarn (POY) which is then further processed using BBE's JeTex air texturizing system with a new auto-doffing unit.

Also on display will be the latest Cobra filter, which enables continuous uninterrupted operation with consistently high filtration quality, and a VacuFil fully integrated system for PET recycling via liquid-state polycondensation, which combines large-area, gentle melt filtration with precise IV control, ensuring consistently high melt quality. With a capacity of 150-4,000 kg/h, the modular concept allows flexible adaptation to different material qualities and areas of application.

The central component of the system is Visco+, the liquid-state polycondensation unit for targeted viscosity adjustment. Continuous adjustment of the IV results in a homogeneous melt with optimal processing properties making it ideal for high-quality end products in the fibre, film, or packaging industries.

› **https://bbeng.de**

B.IRD Machinery manufactures compact infrared rotary drum devices for treating bulk materials, including pellets, regrind, flakes, and powders. The technology is designed for smaller throughputs. The company says its proprietary IRD technology offers advantages over conventional hot-air drying methods for bulk materials: more than 90% in time savings with process times of minutes instead of hours; up to 70% in energy savings; "exceptionally fast" changeover times; enhanced material efficiency.

B.IRD technology can be used in the preparation and pre-processing of materials for compounding and recycling. When combining multiple components, homogenising the melt can be challenging due to differing melting points, it said. The targeted in-line pre-heating of specific fractions with its technology provides a solution, it said, adding that an international client was able to achieve a sustainable 20 kg/hr increase in product yield by reducing filtrate. Ongoing tests include reducing odours in recyclates.

› **www.birdmachinery.de**

Buss, the Swiss developer of co-kneader technology, produces the Compeo series of machines for polymer compounding. These machines have a modular structure which can be precisely configured to meet the specific compounding application. Maintenance outlay is kept low by using highly resistant surface-hardened materials in the process zone. Different machine sizes mean that throughputs can be achieved in low, medium and high ranges.

The Compeo Lab is a versatile laboratory and pilot compounding line for development, process optimization and small production runs. It is suitable for a wide range of applications, from shear-sensitive materials to demanding engineering plastics.

This user-friendly laboratory compounder rounds off the Compeo series with throughputs of 50-100 kg/h at the lower end.

› **www.busscorp.com**

Coperion will present new products and developments for various process steps and display its competence in realising entire plants with the aid of an all-encompassing 3D simulation. It will also display the new DewTector, an online measuring device that measures the residual moisture content of polyolefin granulates or engineering plastics in the running system. The company will also present two high-performance extruders; a ZSK 58 Mc^{18} and an STS 35 Mc^{11}. The ZSK 58 Mc^{18}, with a screw diameter of 58 mm, has a torque of 18 Nm/cm³ and achieves throughputs of up to 2,500 kg/h with low energy consumption, while the STS 35 Mc^{11} offers exceptional efficiency and an attractive price-to-performance ratio. With its maximum specific torque of 11.3 Nm/cm³, it achieves throughputs of up to 300 kg/h. The closely intermeshing twin screws provide very good dispersion of ingredients and optimal self-cleaning in the process section, while the extruder is compact and easy to clean thanks to its smooth surfaces.

Feeding technology is one of the company's core competencies, and to illustrate this it will display a high-accuracy Coperion K-Tron K2-ML-D5-T35 feeder equipped with EPC (Electronic Pressure Compensation) and an ActiFlow bulk solid activator to ensure optimal feeding performance. Likewise, the preconfigured ProRate PLUS-MT feeder will be available to view. Both of

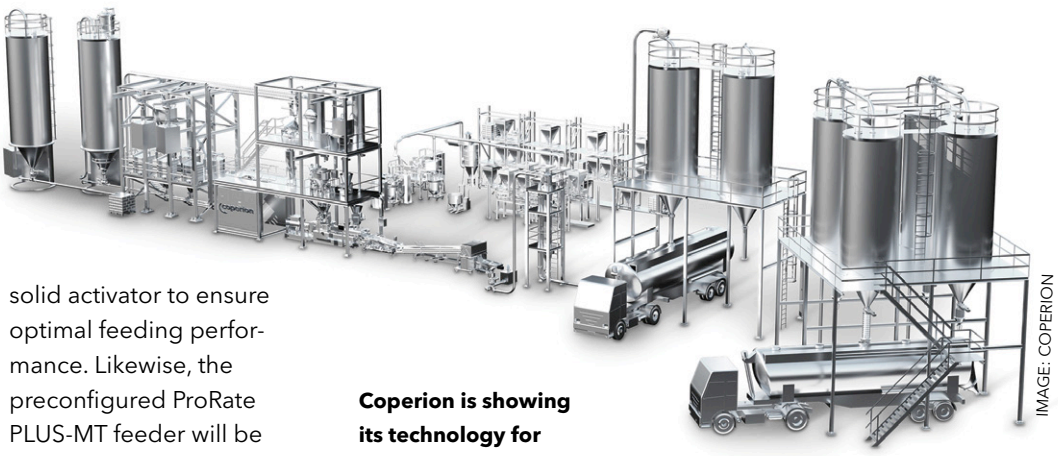


IMAGE: COPERION

Coperion is showing its technology for compounding lines

Right: Farrel Pomini CPeX Laboratory Compact Processor

these gravimetric twin screw feeders are ideal for feeding free-flowing and more challenging bulk materials. Only recently available, the volumetric AccuRate 602 single screw feeder will also be on display, as well as the gravimetric MechaTron Coni-Flex model.

› **www.coperion.com**

Among the core technologies on display at **CPM**'s booth will be an example of its Global Extrusion Technology (GXT) in the form of a powerful plug-and-play twin-screw extruder designed for high throughput, energy efficiency, and precise process control. The company will also showcase the RingExtruder RE which has been built for advanced mixing with low shear, making it ideal for sensitive applications where moisture and volatile compound removal are critical, and a High Output Side Feeder (HOSF) which has been designed to densify and consistently deliver powdery materials like talc into the extruder, improving material handling and throughput. These innovations will be displayed alongside a showcase of CPM's integrated control systems that unify the entire extrusion line and include features for real-time process

IMAGE: FARREL POMINI

monitoring, predictive maintenance, energy optimisation, and recipe management, helping customers achieve smarter production. The company will also be showing a selection of long-life screw elements and wear-resistant barrels engineered for durability, efficiency, and compatibility with a wide range of applications and backed by CPM's global aftermarket and service support.

› **https://onecpm.com**

"ENSŌ" IN MIXING

looking for perfection

The World's No. 1 Trade Fair for Plastics and Rubber
8–15 October 2025
Düsseldorf, Germany
Please visit us at: **Hall 9 / A40**

in equipment manufacturing for

PVC DRY-BLEND, MASTER BATCH, THERMOPLASTIC RUBBER, POWDER COATINGS, METALLIC BONDING and WPC

plasmec
Excellence in Mixing

PLAS MEC S.R.L.
Via Europa 79,
21015 Lonate Pozzolo (VA) – Italy
phone +39 0331 301648
comm@plasmec.it
www.plasmec.it

Erema has spent two years researching, testing, and further developing the twin-screw extruder concept it presented at K 2022. Now, with the new TwinPro, the Austrian company combines the advantages of a twin-screw extruder with the proven strengths of its Preconditioning Unit (PCU). Working closely with customers, the company has developed a series production solution particularly adept at recycling production waste consisting of demanding multi-layer films while also opening up new possibilities for thin-walled post-consumer regrind.

A key feature of the TwinPro is its highly efficient homogenisation. The first stage takes place in the PCU, which shreds, heats, dries, compacts, and buffers the input material. Thanks to patented Counter Current technology, the extruder, directly coupled at a tangent to the PCU, is continuously filled with heated and pre-compacted material. Even with low bulk density material like film waste, the PCU is able to deliver full throughput and covers an exceptionally wide bandwidth of input materials with bulk densities of 30 to 800 grams per litre reliably processed in a single work step without the need for separate agglomeration, weighing, or a stuffing unit. This is followed by intensive homogenisation in the twin-screw extruder, which produces recycled pellets.

Erema will also expand its flagship digital solution PredictOn:Drive, which detects wear on key components, with more detailed data analysis and the new PredictOn:Plastification Unit tool. This will further reduce the risk of unscheduled downtime, increase machine availability, and boost productivity.

› **www.erema.com**

Designer and manufacturer of compounding systems **Farrel Pomini** will exhibit alongside its parent company, HF Group. The stand will feature a range of technologies and demonstrations showcasing how both companies are advancing sustainable solutions, and will include the CPeX Laboratory Compact Processor, a lab-scale processor utilising Farrel Pomini's proven continuous mixing technology. With a nominal throughput of 30 kg/hour and both standard and CPXL rotor configurations, the CPeX enables rapid product development, application testing, and time-to-market reduction. It will be on show alongside an Ampacet SpectroMetric 6 In-line Color Correction Feeding System.

Visitors can also experience a virtual walk-

through of the CP Series II which will provide detailed views of the feed hopper, rotors, and mixing chamber, offering deeper insight into its mechanical design and performance. Visitors will also be able to see numerous technical updates detailing recent developments including a 'groundbreaking' rigid PVC processing solution that eliminates traditional secondary processing equipment, reduces capital investment, and enhances plant safety.

› **www.farrel-pomini.com**

German machine manufacturer **Feddem** will present its newly developed FED 18 MTS laboratory extruder, designed for use primarily in the development of thermoplastic elastomers (TPE) and talc-reinforced and glass fibre-reinforced polypropylene (PP-TV and PP-GF). The modular design allows flexible adjustment of the process length from 32 L/D to up to 52 L/D without changes to the frame, cooling system or control system and all supply lines are pluggable. Dosing devices can be integrated directly to save space and can be folded away to aid maintenance, cleaning, and conversion, meaning that the extruder can be converted quickly and flexibly. Optional components such as the FSB side feed or the FSV side vacuum degassing create practical conditions for the exact transfer of laboratory data to production lines.

Feddem is also exhibiting the Automatic AirBlade (FAA) which was developed to remove material residues at the die exit with a targeted hot air stream to reduce beard formation. An integrated deflection mechanism retracts the slot die from the working area at the touch of a button if a strand break occurs, which improves process reliability and facilitates uninterrupted operation.

› **https://feddem.com**

German filtration specialist **Gneuss** will present the RSFgenius 330L, one of the largest screen changers in its flagship RSFgenius series with an active filtration area of 2,150 cm². The company says the RSFgenius series offers reliable filtration performance even with highly contaminated recycling materials and sensitive applications, and ensures a steady melt pressure even when processing recycled material thanks to its highly-efficient, automatic, integrated self-cleaning system. The filter elements can be automatically cleaned in situ up to 400 times and filter elements as fine as 10µm (1.200 mesh) can be applied. Retrofitting a fully-automatic RSFgenius to an existing extrusion line, whether in a pelletising, sheet, fibre, or pipe application, permits the use of more contaminated material and/or the use of finer screens without disrupting the process or reducing production yield.

Three further Gneuss screen changer ranges will be represented; the SFXmagnus, SFneos and KSF. The SFXmagnus is a process-constant screen changer for a wide range of applications, the SFneos is a more specialised screen changer which offers an extremely high level of

IMAGE: KRAUSSMAFFEI

Above: KraussMaffei is launching the ZE Petrochemical technology for raw polymer production

process and pressure-stability enabling it to cover a huge range of applications where self-cleaning is not necessarily required, while the KSF range is process-constant and designed with extremely sensitive polymers in mind. It is mostly used in compounding where its uniquely customisable design for fast material and grade changes is a major advantage.

› **www.gneuss.com**

A K2025 highlight from **KraussMaffei** is its new Chopped Fibre Processing (CFP) technology for direct compounding in injection moulding. This enables separate dosing of PP and glass fibres, which can both be supplied directly via the machine's conveyor system, homogenised, and processed with the help of the new CFP screw. Visitors can experience the new technology on a GX 650-4300 moulding machine with an LRXplus 350 linear robot and watch the production of a complex, functionally integrated tailgate component with realistic 3D geometry ready for assembly straight from the machine.

A demonstration on the group's stand is titled "Compounding beyond 2025: Twin-screw extruders optimised for process engineering". This will highlight twin-screw compounding technology such as the new generation of BluePower extruders. According to KraussMaffei, benefits include: improved operation and greater energy efficiency; digital networking via the Pioneer ProcessControl system; and optimised price-performance ratio and shorter delivery times.

KraussMaffei is launching ZE Petrochemical for raw polymer production. The powerful co-rotating twin-screw extruders in this new series were developed specifically for the requirements of the petrochemical industry and mark the company's entry into this market segment.

In the PET recycling sector, KraussMaffei Extrusion is using K2025 to show a high-performance twin-screw system based on the BluePower series for throughputs of up to 12 tonnes/hr. The concept responds to the increasing demand for higher output and more energy- and cost-efficient processing. Compared to conventional twin-screw systems, energy consumption can be reduced by up to 20%. The systems are compatible with standard SSP units and produce food-grade rPET.

In chemical recycling, the company is focusing on key technologies: high-performance extruders for processing material streams – for example, to produce pyrolysis oils – efficiently implement crucial process steps such as dewatering, degassing and the removal of impurities. Pressures of up to 200 bar and the retractable UltraGlide system with easy-to-maintain screws enable customized solutions for demanding recycling applications.

Following the successful launch of the PowerPrint 3D printing technology at K2022, KraussMaffei is also presenting new PowerPrint FLEX and PrintCore variants at K2025. These modular systems offer maximum flexibility, high productivity, and excellent print quality for industrial applications. As part of a live demonstration, the PowerPrint FLEX will be shown in combination with the new PrintCore extruder in an industrial robot cell. Also on display will be the MC7, a modern, web-based control platform featuring intuitive operation, powerful software and hardware architecture, and elevated security to fulfil the requirements of the Cyber Resilience Act (CRA).

› **www.kraussmaffei.com**

Leistritz and **Next Generation Recyclingmaschinen (NGR)** have announced a cooperation agreement and will present their collaboration at K2025. The partnership combines the two companies' strengths: NGR as a global supplier of highly efficient and innovative plastics recycling systems for polyolefins, PET, and technical plastics; and Leistritz is one of the world's leading manufacturers of twin-screw extruders and turnkey extrusion lines for compounding. They are developing a process solution that enables recycling and compounding in a single step with only one melting process.

The companies said a joint recycling and compounding system installed at the NGR Test Centre in Feldkirchen an der Donau, Austria, allows the efficiency of the cooperation to be demonstrated at any time. The system is designed for approximately 300-500 kg/hr and is available for customer trials.

› **www.leistritz.com**

› **www.ngr-world.com**

Make your formulations become granules

Custom Twin-Screw Extruders Solutions

At Comac, we don't just build twin-screw extruders:

we engineer tailor-made solutions.

With decades of hands-on experience,
we understand your materials,
your process challenges, and your production goals.

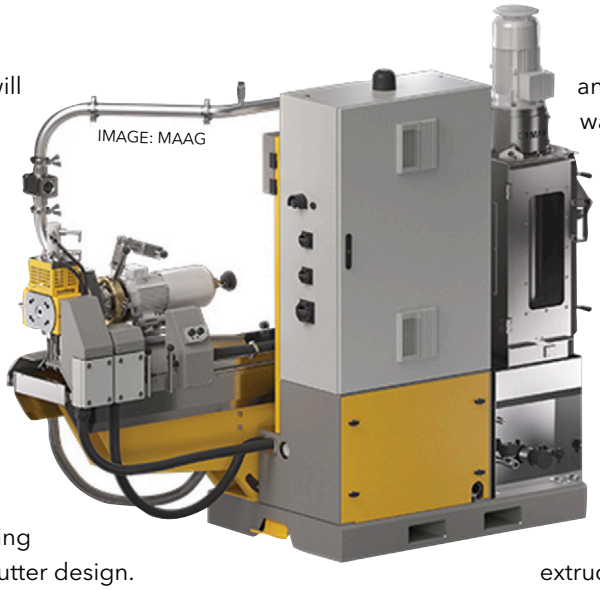
What sets us apart? Contact us to explore your custom twin-screw extruders solutions.

COMAC
COROTATING TWIN SCREW EXTRUDERS
SINCE 1978

2025
8-15 OCTOBER
Düsseldorf, Germany

Join us at Hall 16 - Booth 16D20

comacplast.com



Right: Maag's new Pearlo CS compact pelletising system

The **Maag Group** says it will unveil a host of innovative technologies centred around integrated system solutions in pelletising, extrusion, filtration, and recycling, as well as measurement and control. Among the exhibits will be the new Pearlo CS compact pelletising system which comes in two sizes each featuring a tangential cutting chamber and optimised cutter design. Elsewhere, the next generation NG-USG underwater strand pelletising system enables greater throughput and superior pellet quality whilst boasting additional sensors to boost process stability, and the semi-automated EBG dust-reducing dry cut strand pelletising system offers flexible process control with reduced strand breaks, low moisture content, and minimised dust formation.

The company will also show the Extrex^{6} EC gear pump for rigid PVC processing said to deliver unprecedented levels of process safety, product quality, and resource efficiency, alongside BRF & ERF double-stage melt filtration. As the BRF coarse melt filter enhances downstream equipment protection and ensures stable operation, the ERF fine filter guarantees exceptional pellet quality with minimal material loss. Combined, these filters offer a powerful combination for efficient, low-cost recycling solutions.

› **https://maag.com**

MachinePoint is a leading company for buying and selling used machinery in the plastics and beverage industries. It focuses on used machinery for film extrusion and converting, flexographic printing, thermoforming, sheet extrusion, injection moulding, blow moulding, and plastics recycling. The machinery brands it works with include: Erema, NGR, Comexi, Windmöller & Hölscher, Reifenhäuser, Nordmeccanica, Engel, Arburg, SML, Macchi, Bobst, Bausano, and Battenfeld-Cincinnati among others. Machines for the compounding sector are from leading brands such as Leistritz, Coperion, Krauss Maffei and more.

› **www.machinepoint.com**

MEAF Machines will launch its new Xtender technology at K2025 for use in the production of recycled PET film and sheet. This polymer melt co-processing technology, with exceptional mixing and degassing properties, was developed by MEAF in collaboration with an Italian partner and increases the IV value of rPET using a patented liquid state polycondensation process. The Xtender technology can be retrofitted on both single-screw and twin screw extruders, where it is located directly downstream of the extruder.

MEAF says the Xtender technology was developed with its core manufacturing values in mind, providing a cost-effective solution that can be modularly integrated into new and existing extrusion lines for both recycling as well as film and sheet production.

› **www.meaf.com**

With its new swift product series, **Motan** says it is introducing cost-effective solutions across the board for auxiliary equipment in materials management with its range of standardised units specially developed for companies looking to economise whilst not compromising on efficiency, reliability, or ease of use.

The swift series covers the entire product range for materials handling, from dosing and mixing to drying and conveying, highlights to be displayed at K include the sDRY 40/80, a flexible and compact dehumidified air dryer range, the sCOMPACT, a flexible dehumidified air dryer with integrated conveying and optional control of an additive dosing unit, the sCONVEY HES, a compact single-phase material loader for granulates with intelligent control, and the sCOLOR V additive dosing and mixing unit.

› **www.motan-group.com**

Promix Solutions will be presenting various solutions for mixing, foaming and cooling with the focus on raw material savings with Microcell Technology and real-time monitoring and process control with the Visco-P inline viscometer. In extrusion, material accounts for 80 % of the CO2 footprint. Microcell Technology creates a microcellular foam structure in the polymer by adding environmentally friendly atmospheric gases. This reduces the product weight by 20-50%, resulting in significant material savings. Promix Microcell Technology is mainly used for films, sheets, foam

TÜYAP

PAGEV
TÜRK PLASTİK SANAYİCİLERİ ARAŞTIRMA, GELİŞTİRME VE EĞİTİM VAKFI
TURKISH PLASTICS INDUSTRY FOUNDATION

Plast Eurasia istanbul 2025

34th INTERNATIONAL İSTANBUL PLASTICS INDUSTRY FAIR

December 3-6, 2025

www.plasteurasia.com

Eurasian Gateway to Global Trade

Online Ticket

TÜYAP FAIR AND CONGRESS CENTER
İSTANBUL | TÜRKİYE

THIS FAIR IS ORGANIZED WITH THE AUDIT OF TOBB (THE UNION OF CHAMBERS AND COMMODITY EXCHANGES OF TURKEY) IN ACCORDANCE WITH THE LAW NO. 5174.

IMAGE: SIKORA

Above: Sikora's Purity Concept V inspection system

core pipes, profiles and cable sheathing, and works for almost all polymers. In addition to saving materials, new product properties associated with foaming, such as weight reduction, improved noise or heat insulation, better shock/impact absorption, light-diffusing optics, or other visual and haptic effects, are an additional incentive for using the technology which is available for both newly-planned extrusion lines and as a retrofit solution.
› **www.promix-solutions.com**

Qlar (formerly Schenck Process) will demonstrate how different materials can be dosed reliably and continuously with the SIMPLEX FB loss-in-weight feeder to ensure an efficient and smooth process flow. The company says it relies on combining hardware with intelligent, digital integration to maximise productivity, minimise downtime, and sustainably optimise the material flow at every stage of recycling and processing.

Another highlight promises to be the SIMPLEX FB, a gravimetric stainless-steel feeder with a high feed rate that can be used to dose a variety of materials. Thanks to the bottom-driven agitator and the low centre of gravity, even regrinds or plastic flakes can be processed while the integrated sensor system allows data to be collected and transmitted in real time. The intelligent system enables fill level measurement and bridge detection as well as moisture measurement of the material, and blockages in the discharge are recognised at an early stage. Depending on the speed and filling level, optimum operating values for different materials can be readily determined, laying the foundation for long-term process optimisation.
› **www.qlar.com**

Sikora is presenting a large number of measuring and sorting technologies at K2025. Among these is its Purity Scanner Advanced, a flexibly configurable inspection and sorting system. In addition to high-resolution optical cameras, which detect black specks from 25 µm, for example, an X-ray camera is also available as an option, especially for detecting metal particles in the pellets. With the three-camera system, customers can define which types of contamination are tolerable, for example small, light-coloured black specks, and sort them out with a smaller blow-out unit.

Sikora's Purity Concept V system inspects pellets or test plates for optical impurities such as black specks within a few seconds. The system detects, visualizes and records even the smallest contamination and provides a comprehensive statistical evaluation, automated and reproducible. Live material tests with the Purity Concept V will be carried out at the Sikora booth. Visitors can bring small quantities of pellets or test plates and put their material to the test free of charge.

In pipe extrusion, Sikora is showing new measurement products, including the Centerwave 6000/1600, an expansion of its proven radar technology for non-contact online measurement of wall thickness, centring, diameter, inner profile and ovality over the entire circumference of plastic pipes. The new model was specially developed for the diameter range from 250 to 1,600 mm. A particular highlight, says the company, is the integrated Dynamic Shrinkage Prediction function. Also being displayed is a measuring system for small dimensions: Centerwave 6000/250 measures tubes and pipes from 32 to 250 mm in diameter.

The X-Ray 6000 Pro C-PipeAI is a development for measuring corrugated pipes (DWC) using AI. The system combines an X-ray-based measurement process with newly developed AI-supported software which enables highly accurate evaluation of the X-ray data, even for the complex hill-valley outer contour of corrugated pipes and tubes, says Sikora.
› **www.sikora.net**

Zeppelin Systems, which has technology solutions for storing, conveying, mixing, dosing and weighing plastic materials, is exhibiting at K2025 with the theme "Rethink plastics for a smarter future" and presenting innovative solutions for future-proof plastics processing to the trade audience. "As a global plant manufacturer and a foundation-owned company, we develop sustainable solutions and processes for our customers. Every project phase is supported by us in partnership and in close coordination with our customers," said Hubert Stojanovic, Chief Sales Officer of Zeppelin Systems.
› **www.zeppelin-systems.com**

ADK TRANSPAREX™ CA series materializes the ultimate transparency of polypropylene articles with significant lower dosage. By enabling PP to replace other materials such as polystyrene, PET, and even glass, ADK TRANSPAREX™ meets the diverse requirements. Uses for Food containers, Cosmetic bottles, Home appliance, Medical equipment, Automotive parts and Building materials, etc. are recommended.

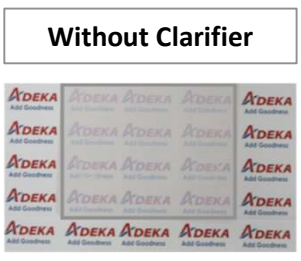
Furthermore, ADK TRANSPAREX™ is approved by the US FDA as a food contact material. This is a highly safe polymer additive that has been approved for a wide range of temperature conditions, from A to H, as well as J. Furthermore, since only a small amount needs to be added, plastic products can be used more safely and securely than ever before.

Achieved transparency with ADK TRANSPAREX™

ADK TRANSPAREX™ provides the same or better transparency and improved mechanical properties with less than half the addition compared to conventional Nonitol-based clarifiers.

Additionally, ADK TRANSPAREX™ is an excellent flowability powder form, making it easy to feed to the extruder.

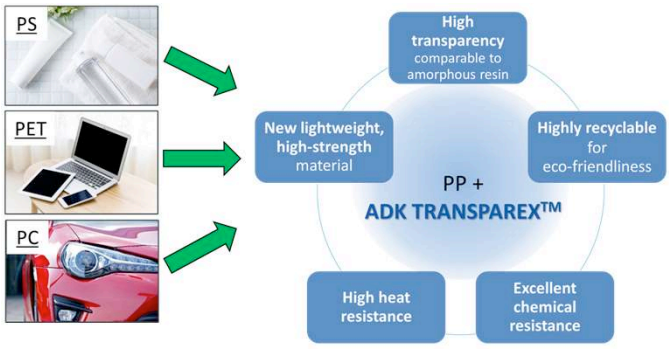
Test piece (1 mm) made of Polypropylene with 0.1% ADK TRANSPAREX™



Polypropylene test piece (1 mm) without the addition of a clarifier

Enabling to replace other transparent polymers

Polypropylene is a translucent polymer by nature. By adding a clarifier to polypropylene, it is possible to control the nucleation process during crystallization, thereby reducing the size of polypropylene spherulites of under visible light wavelength. The polypropylene appears transparent because visible light passes through without being scattered due to the much smaller polypropylene crystal structure. ADEKA has succeeded in developing ADK TRANSPAREX™ by designing a new molecular structure that can control the hierarchical microstructure of polypropylene crystal to a finer level than current clarifier technology. This makes it is possible to achieve transparency comparable to that of amorphous resins (PS, PET, etc.).



Strengths of ADEKA Polymer Additives

ADEKA has a wide range lineup of additives with diverse functions, including flame retardants, Light stabilizers (UVA, HALS), plasticizers for PVC (polyvinyl chloride), and environmentally friendly additives that promote plastic recycling or that use raw materials with a lower environmental impact. We have 16 production and sales sites in 12 countries and territories and have established a world-class technical and service structure to meet the diverse needs of the global market.

IMAGE: CLARIANT

UV stabilisers strengthen work in sustainability

Antioxidants and UV stabilisers enhance durability of plastics, helping towards sustainability. Jennifer Markarian finds out more about recent developments

Antioxidants and ultraviolet (UV) light stabilisers for thermoplastics are being positioned as aiding sustainability by enabling a longer useful life for plastic goods, which leads to less waste. As companies seek to meet sustainability goals and requirements for recycled content, antioxidants are finding growing use in stabilising recycled plastics. These materials can benefit from restabilisation to counter degradation from processing and their initial use. UV stabilisers are particularly important for protecting durable plastic parts from degradation due to light and weathering in outdoor applications.

Stabilisers are also critical for plasticulture – plastics used in agricultural applications, such as greenhouse films and mulch films, which must withstand the additional exposure of agricultural chemicals. Various classes of UV stabilisers are available for different applications, including UV absorbers and hindered amine light stabilisers (HALS).

BASF's non-basic aminoether (NOR) HALS provide improved stabilisation in plasticulture compared to stabilisers based on secondary and methylated HALS, the company said. BASF's partnership with Shouman Group, based in Egypt, will be highlighted at the upcoming K Show.

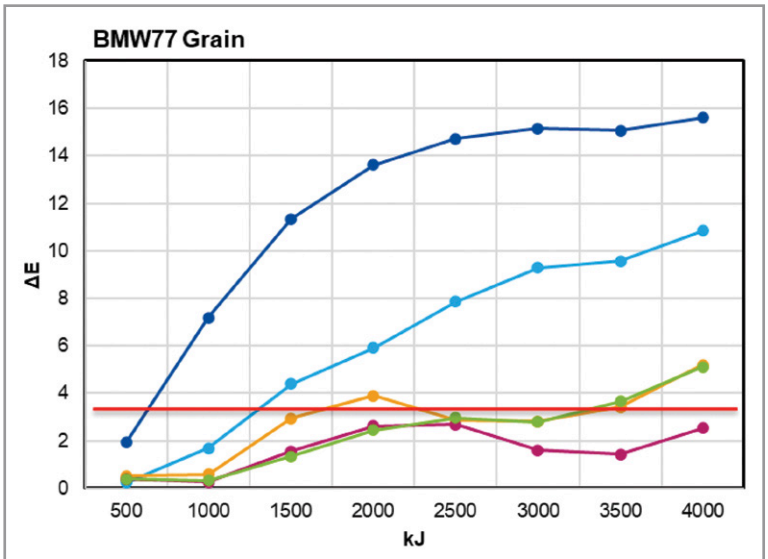
Shouman is an early adopter of Tinuvin NOR 211 in plasticulture for managing excessive heat and exposure to sulphur and chlorine.

International chemical company and polymer additives producer **Sabo** has ended its long-term, global distribution agreement outside of Europe with Korean stabilisers manufacturer Songwon. In addition to the European market, Sabo is now globally offering its Sabostab UV HALS, moving forward with its international expansion strategy.

"This strategic decision enables Sabo to respond more dynamically and effectively to customer needs with a tailored sales approach while aligning with its long-term expansion strategy," the company said. "Following its backward integration through the acquisition of HALS intermediates in January 2023, the company has been reinforcing its global supply chain and production capabilities, ensuring a stable, high-quality supply of HALS solutions to customers worldwide."

Beside conventional low molecular weight HALS and high molecular weight polymeric HALS, Sabo supplies UV absorbers used in polymers such as PVC, PMMA, and TPU. Sabo also offers more specialised UV stabilisers for specific applications

Main image: A new application area for Clariant's Nylostab S-EED is in polyamide artificial turf, where the stabiliser protects the polymer's durability and colour under high UV exposure



Addition of BYK-MAX HS 4309 improves UV protection in unfilled polyamide (neat samples). Results were affected by surface texture
Source: BYK

in automotive, agricultural film, and synthetic turf.

Most recently, the company introduced two new systems designed for greenhouse films: Sabostab UV 728 and Sabostab UV 980. Both systems are combinations of newly introduced N-Alkoxy HALS, with outstanding chemical resistance, with a highly film-persistent triazine UV absorber. Sabostab UV 728 is formulated to meet most requirements for use in greenhouse films with high exposure to agrochemicals, and Sabostab UV 980 is intended for specifically high-risk applications, where agrochemical use is very intense, the company said.

Another area of focus is automotive. UV stabilisers in automotive thermoplastic materials provide durability and improves the lifecycle assessment (LCA) profile of plastic products. Environmental footprint is becoming increasingly important for new compound formulation, the company said.

Additive safety

Songwon is committed to advancing industry-wide collaboration, shaping regulatory policies, and promoting data-driven regulatory guidance within the chemical sector, the company announced, as evidenced in the recent appointment of Thomas Schmutz, Leader Technology, Regulatory Affairs & Sustainability at Songwon, as the new chair of the European Light Stabiliser and Antioxidant Association (ELiSANA), a non-profit sector group of the European Chemical Industry Council (Cefic).

"As regulatory requirements grow in complexity, strong scientific cooperation is more important than ever. Many decisions made in Europe are quickly mirrored globally, so it is critical to support policymakers with sound science and reliable data," said Schmutz. "Through ELiSANA, I look forward to strengthening engagement across the value chain and helping to ensure that essential substances like antioxidants and light stabilisers remain available for safe and sustainable use. A collaborative approach is vital to securing a strong, future-ready European industry built on the best available science."

Songwon is also involved in the European Additive Technical Committee (ATC), the Global Organotin Stewardship Council (GOSC), the Light Stabiliser and Antioxidant Consortia (LiSAO), the OrganoTin Consortium (OTR), and the European Council for Alkylphenols and Derivatives (CEPAD). "These efforts are becoming increasingly critical as regulations shift toward full life-cycle responsibility and demand greater transparency from chemical producers," the company said.

Songwon recently announced that it had expanded its partnership with Biesterfeld Spezialchemie; the company is now the exclusive distributor for Songwon's range of polymer stabilisers in the markets of Romania, Bulgaria, Croatia, Montenegro, Bosnia & Herzegovina, Kosovo and North Macedonia.

New PA stabiliser

BYK developed a new UV stabilising system for polyamides exposed to UV radiation, particularly for outdoor applications, including furniture as well as automotive interior and exterior parts. BYK-MAX LS 4128 is an organic system supplied as a granulated, free-flowing concentrate with a high level of active ingredient in an ethylene copolymer carrier. The system is a combination of HALS stabilisers with other radical-scavenging components, including peroxide decomposers and additional antioxidants.

"This formulation enhances the overall stabilisation performance by addressing multiple degradation pathways – particularly those involving UV-induced radical formation and peroxide buildup," the company said. "HALS neutralize UV-induced radicals, peroxide decomposers prevent chain scission, and antioxidants protect against heat during processing and long-term use. Together with BYK's proprietary surface chemistry and radical-scavenging technologies, this synergy ensures high material durability," the company explained. The new system is an addition to the company's other modified concentrates for stabilisation of polyolefins and polyamides.

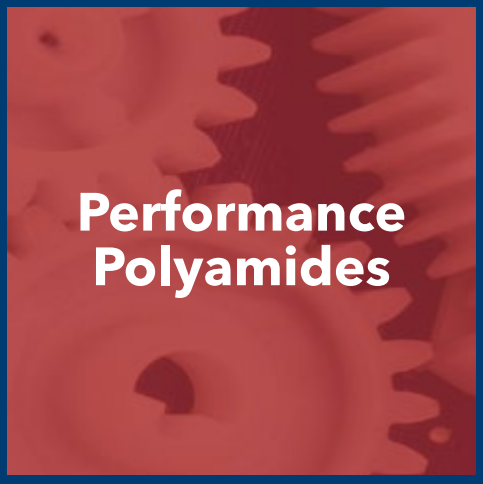
Clariant announced that it is expanding production in China through its joint venture with Beijing Tiangang Auxiliary Co, which commissioned a second production line at its Cangzhou facility in China. The new line will primarily manufacture

AMI | Events

Innovation Series

November 11, 2025 | Cleveland, OH, USA

One date, one location, four events - discover agenda updates



FIND OUT MORE

Performance Polyamides sponsored by:

Mitsui Chemicals Group

AdvanSix Good chemistry

Polymers in Flooring sponsored by:

DOW

IMAGE: CLARIANT

Above: Clariant is part of a joint venture expanding production in China

Nylostab S-EED, a multifunctional stabiliser.

"This expansion represents a strategic investment in our ability to serve the rapidly growing Asian market for high-performance stabilisers," said Mariano Suarez, Head of Marketing Additives at Clariant. The new capacity will enable Clariant to better serve customers in both the textile and engineering plastics industries throughout China and the broader Asian market, the company said.

A key new application area for Nylostab S-EED is in polyamide (or nylon) artificial turf, where the stabiliser protects the polymer's durability and colour under high UV exposure and frequent cleaning. The additive exhibits efficient retention inside the nylon matrix, where it resists "stringent conditions such as cleaning or climate challenges," the company said.

Phenol-free

New from Clariant is AddWorks LXR 548, a phenol-free antioxidant for polyolefins. The stabiliser effectively reduces yellowing in polyolefin parts, even after sterilisation processes such as gamma radiation and thermal treatment, the company said. The additive has a low extractability and low toxicity profile that make it suitable for applications with strict regulatory requirements, including the growing market of medical-grade plastics. It is intended to replace antioxidant packages that include phenolic antioxidants in cases where these are prohibited or not desired, to meet the growing demand for "safer chemistries" coming from brand owners.

"AddWorks LXR 548 addresses the critical need of removing phenolic antioxidants from sensitive applications such as medical devices and hygiene products," noted Emilie Meddah, Market Manager Additives at Clariant. "It allows superior colour

Discount for Cable Manufacturers:
Attend for: $145*

AMI | Events

Cables Asia

18-19 November 2025 | Bangkok, Thailand

Exploring the latest polymeric material innovations for cables and wires in Asia

Meet our speakers:

Dr. Kalyanee Sirisinha
Professor of Plastics and Polymer Technology
Mahidol University

Duncan de Voogt
Process and Sales Engineer
Lindor

Mauro Luraschi
Material Development Engineer
Huber + Suhner

Glenn Mandey
General Manager
Extrana Cable

Sponsored by: Nabaltec, Lindor, FLAME RETARDANT 艾弗尔

*Subject to approval.

SECURE YOUR PLACE TODAY


IMAGE: AMPACET

Right: Ampacet is developing a new UV absorber for light blocking in rigid PET packaging, such as beverage bottles and pharmaceutical and nutraceutical packaging

protection during processing, combined with exceptional stability after sterilisation treatments, making it ideal for syringes, bottles, non-woven materials, and other polyolefin plastic parts where appearance and performance are paramount."

Clariant reports that, depending on the dosage, the new antioxidant additive can also provide a light stabilisation effect that is beneficial even for parts containing fillers or pigments, including carbon black.

SI Group says its liquid phosphite antioxidant Weston 705 reduces gels, plate-out, and film deposits during processing, ensuring cleaner lines and higher productivity in polyethylene blown and cast film applications. In its most recent industrial-scale blown film trial at a blown film converting line manufacturer, the test found that metallocene linear-low density polyethylene (LLDPE) resin stabilised with Weston 705 at a 15% lower loading than conventional phosphite, produces polyethylene film with 20% less gels and elevated mechanical properties such as Elmendorf tear and elongation at yield.

The antioxidant supports sustainability goals by enabling film downgauging, the company says. The additive is safe for food contact applications worldwide, and the company provides a complete non-intentionally added substances (NIAS) profile for further assurance of safety and compliance in regulated packaging environments. The liquid form simplifies dosing, ensuring consistent dispersion and optimised antioxidant efficiency.

Light blocking

The demand for UV absorbers as light-blocking technology in PET packaging could increase due to US government initiatives calling for a phase-out of eight synthetic dyes from food and drug products and state legislation targeting artificial dyes and preservatives, said Jordan Wolfe, North American Product Manager for Additives, at **Ampacet**. "While the [national] phase-out is voluntary, food and beverage companies are working on reformulating products, possibly using less stable natural alternatives. Enhanced UV absorbers will help to maintain the shelf-stability and visual appeal of these products," he suggested.

Ampacet will soon release a new UV absorber for light blocking in rigid PET packaging, such as beverage bottles and pharmaceutical and nutraceutical packaging. The technology may also be used in PETG shrink sleeves. "Unlike traditional absorbers, it captures the full UV spectrum, including the challenging 390-400 nm range, while not affecting colour or colour clarity. It can also be used at extremely low usage rates," said Wolfe.

"For some applications, such as vitamin bottles, a thinner wall thickness can present light-blocking challenges," he said. "This new UV absorber will also maintain light-blocking performance when packaging is downgauged, particularly for smaller bottles."

Wolfe pointed out that UV stabilisers for greenhouse films is another evolving application where Ampacet offers additive solutions. "In environments where sulphur and other chemicals used to boost crop yields can deactivate stabilisers, these advanced additives ensure sustained UV protection, enhancing durability and performance," he said.

Avient's latest is ColorMatrix Lactra ESL, a light-blocking additive formulated for the growing extended shelf-life (ESL) dairy market. For PET packaging for ESL dairy applications, the new solution provides tailored, mid-range light protection for ESL products with shelf-life requirements of up to three months. Compared to Avient's existing Lactra grades, Lactra ESL allows brighter whiteness and more tailored light-blocking that is between a standard white pigment and full light-blocking additives, which are typical for longer-life shelf products. The aim is to enable sufficient shelf-life in recycle-friendly monolayer PET. ColorMatrix Lactra also creates the potential for bottle lightweighting, which can reduce transportation costs and lower carbon dioxide emissions, the company said.

"Overall, ColorMatrix Lactra ESL offers a more sustainable and cost-effective alternative to traditional solutions by having low titanium dioxide [TiO_2] levels, which can help reduce inorganic

content in packaging without compromising light-blocking performance, while also extending the shelf life of dairy products to help prevent food spoilage," said Antonello Decortes, Global Product Platform Manager, Gas and Light Barriers, Avient Corporation. "These levels are lower than 4%, even if used at the highest recommended Let Down Ratio (6%). This is because some countries are setting new TiO_2 regulations, such as France, where the maximum TiO_2 level allowed in opaque white bottles is set at 4%. For the moment, we do not yet foresee this 4% restriction being applied to other countries. However, we understand some countries may implement a dedicated recycling stream for white opaque bottles." Decortes added that lower levels of TiO_2 reduce equipment wear and tear, which should help prolong machinery lifetimes.

Last year, three of Avient's UV barrier additives for PET bottles were granted RecyClass Recyclability Approval, establishing that the additives do not cause yellowing after recycling, which is important for maintaining high quality in unpigmented PET. The formulations are Cesa Light Additives FEA0050148, Cesa Light Additives FEA0050249, and ColorMatrix Ultimate UV 390-1 Light Barrier for PET.

According to RecyClass, "Independent testing was carried out by the Institut für Kunststofftechnologie und -recycling [IKTR], following an adapted version of the RecyClass Recyclability Evaluation Protocol for PET bottles. The results showed no adverse effects on the recycling process, confirming compatibility with state-of-the-art recycling processes in Europe." RecyClass said that the approval of the three Avient additives is valid as long as the amount of additive used does not exceed 0.15 wt % of the total weight of the packaging.

IMAGE: AVIENT

Above: ColorMatrix Lactra ESL is a new light-blocking additive from Avient formulated for the growing extended shelf-life dairy market

Repi's UV absorber formulations REMAP 00395 and REMAP 00561 also received a RecyClass Recyclability Approval in late 2024, indicating compatibility for PET recycling in Europe.

CLICK ON THE LINKS FOR MORE INFORMATION:

- **www.basf.com**
- **https://sabo.com**
- **www.songwon.com**
- **https://elisana.cefic.org**
- **https://atc-europe.org**
- **www.cepad.cefic.org**
- **www.byk.com**
- **www.clariant.com**
- **https://siigroup.com**
- **www.ampacet.com**
- **www.avient.com**
- **https://recyclass.eu**
- **https://repi.com**

AMI Plastics World Expos

NORTH AMERICA

November 12-13, 2025 // **CLEVELAND, OHIO, USA**

REGISTER FOR FREE NOW >

Confirmed exhibitors include:

Aaron Industries Corp. · ABS Advanced Blending Solutions · ACE Laboratories · ADG Solutions · AdvanSix · Advanced Cryogenic Ent · aec · cumberland · Sterling · Aimplas Plastics Technology Centre · ARDL · Altech · Kahl · American Cutting Edge · American Industrial Product · AM Fine · Ampacet · AMUT · Soleno · Anping Songjia Wire Mesh Co., Ltd. · AssetWatch · Avian Recycling System · AZO · Barlocher · Barentz. · BE&E · BPM Bay Plastics Machinery · Aditya Birla Birla Carbon · BoReTech · B&P Littleford · Anton Paar · Brenntag · Revamp Polymers Inc. · Bronkhorst · Bruno Folcieri · Buss excellence in compounding · Buss ChemTech · BYK · C4 Polymers · Tinius Olsen The First Name In Materials Testing · Cargill · Carolina PEC · CDS · Chroma · CIMBAR · Clariant · CMG granulators · Soucy Techno · Conair · coperion · CSM · Covia · CT Polymers · Cutmetall · Dathia · SPG · Davis-Standard · DUT · EBM · ECON · ecopuro · EFS Plastics · ENTEC · Calcean · Eisenbeiss · ensign · ENTEK · ENTEX · EX31 Automation, LLC · Extreme Coatings · STADLER · Extrusion Consulting · exxel · Farrel Pomini · FB Balzanelli · Federal Equipment Company · FiberX · FIMIC · GP General Polymers · STAR Plastics · Finite Fiber · Galata Chemicals · GENOX USA · Global-Pak · gneuß · Göttfert · ReNew Plastics · Revolution · Routsis Training · Royce Global · RUNI · Ruentuan · Sasol · sawgrass sustainable · Scantech · Schake · Sciences Computers Consultants · Sensor Instruments · Shamrock · Shini USA · Sikora · SILON · Steer · Struktol · Syncro Group USA · TA Instruments · TPEI · Tecnofer · thechemicalcompany · ThermoFisher Scientific · The Polymers Center

Brought to you by:

AMI

Co-located exhibitions:

COMPOUNDING WORLD EXPO

POLYMER TESTING WORLD EXPO

PLASTICS EXTRUSION WORLD EXPO

PLASTICS RECYCLING WORLD EXPO

LIMITED BOOTH SPACE REMAINS!

SECURE YOUR BOOTH HERE >

HELLUVA CONTAINER · HERITAGE PLASTICS · HORIZON SYSTEMS · HOSOKAWA POLYMER SYSTEMS · iD Additives · IMCD · INCOA PERFORMANCE MINERALS · Q-LAB

INDUSTRIAL MAGNETICS · innovative RECYCLING SOLUTIONS · INTEGRATED CONTROL TECHNOLOGIES · JSW · JEOL · J-TEC MATERIAL HANDLING · kaneka · KUHNE GROUP

Kal-Polymers · KIBBECHEM · KAWATA · KICE · KISUMA · Leistritz EXTRUSION TECHNOLOGY · Zwick Roell Testing Systems

Kubota Brabender Technologie GmbH · KW · LAIDIG · LAWER · LIST Kneading · Mixing · Drying · LUDECA 40 YEARS Keep it running. · WERNER SHREDDING + COMPRESSING

LUMINA · MAAG Group · MAGRIS Performance Materials · TechAmericas · MAS · matium · ZOLTEK Toray Group

MERIDIAN · mesutronic DETECTING WHAT MATTERS · METTLE FILTRATION PRODUCTS · mei MIDWEST ELASTOMERS INC. · Milliken · MIXACO USA LLC · mixron Think smart. Mix better.

MLC · MDI MODERN DISPERSIONS, INC. · MoistTech Corp. · NETZSCH Proven Excellence. · NEXAM CHEMICAL · NGR PLASTIC RECYCLING TECHNOLOGIES · WACKER

NFM · NICHE POLYMER · NORAC ADDITIVES · o.a. newton · OMYA · Orbetron · orion · PALMER HOLLAND · zimmer AMERICA recyclingsolutions

Performance Additives · PGI Plastics · pinfa North America · Piovan UnaDyn · plasmec Excellence in Mixing · PlastiCal · Virtus Equipment

PLASTICS MACHINERY GROUP · PLASTIWIN CAPITAL EQUIPMENT · pmc · Polychem Dispersions INCORPORATED · polykemi · POLYSTAR Containment · Polyvel Inc.

PRET · Prime Materials · PRISM WORLDWIDE · PROCESS CONTROL CORPORATION · PromaXX · PROTON PRODUCTS · PSI POLYMER SYSTEMS INC. · ORTEX

PURE LOOP MEMBER OF EREMA GROUP · R&B Plastics Machinery LLC · R.C. Plastics, Inc · Recycling Equipment Inc North Carolina - Texas · REELPOWER INDUSTRIAL · Reliance Mixers.com · WELSET

TOYOTA TSUSHO AMERICA, INC. · TRENDELKAMP · UNIBROM · USE EXTRUDERS · UWAY · VAN DYK recycling solutions · vartega · Vecoplan

x-rite · XALOY · ZEPPELIN WE CREATE SOLUTIONS · ZERMA

and many more. See the full list of exhibitors here.

Proudly supported by:

Compounding WORLD · Film and Sheet EXTRUSION · Pipe and Profile EXTRUSION · Plastics Recycling WORLD · Injection WORLD

AMI | Events

Fire Resistance in Plastics

1-3 December 2025 | Düsseldorf, Germany

AGENDA OUT NOW!

Delivering innovative and sustainable solutions for the fire retardants industry

Hear from experts including:

Ravi Bhairi
Senior Development Engineer
AZL Aachen

Harm Leenders
Head of Laboratory for Fire Safety
Peutz

Dr. Frank Schönberger
Head of Department Synthesis and Formulating
FRAUNHOFER INSTITUTE

Dr Bernhard Schartel
Professor
Federal Institute for Materials Research and Testing

Thomas Mayer-Gall
Head of Chemistry and Nanotechnology
Deutsches Textilforschungszentrum Nord-West (German Textile Researchcenter Nord-West)

Sponsored by:

Tisan | greenchemicals THE PARTNER FOR YOUR GROWTH | NETZSCH Proven Excellence. | firetesting technology

SECURE YOUR PLACE TODAY

Taking the heat away

Progress in the field of materials for heat management include design and simulation packages and developments based on polycarbonate, PEEK and ceramic-filled compounds

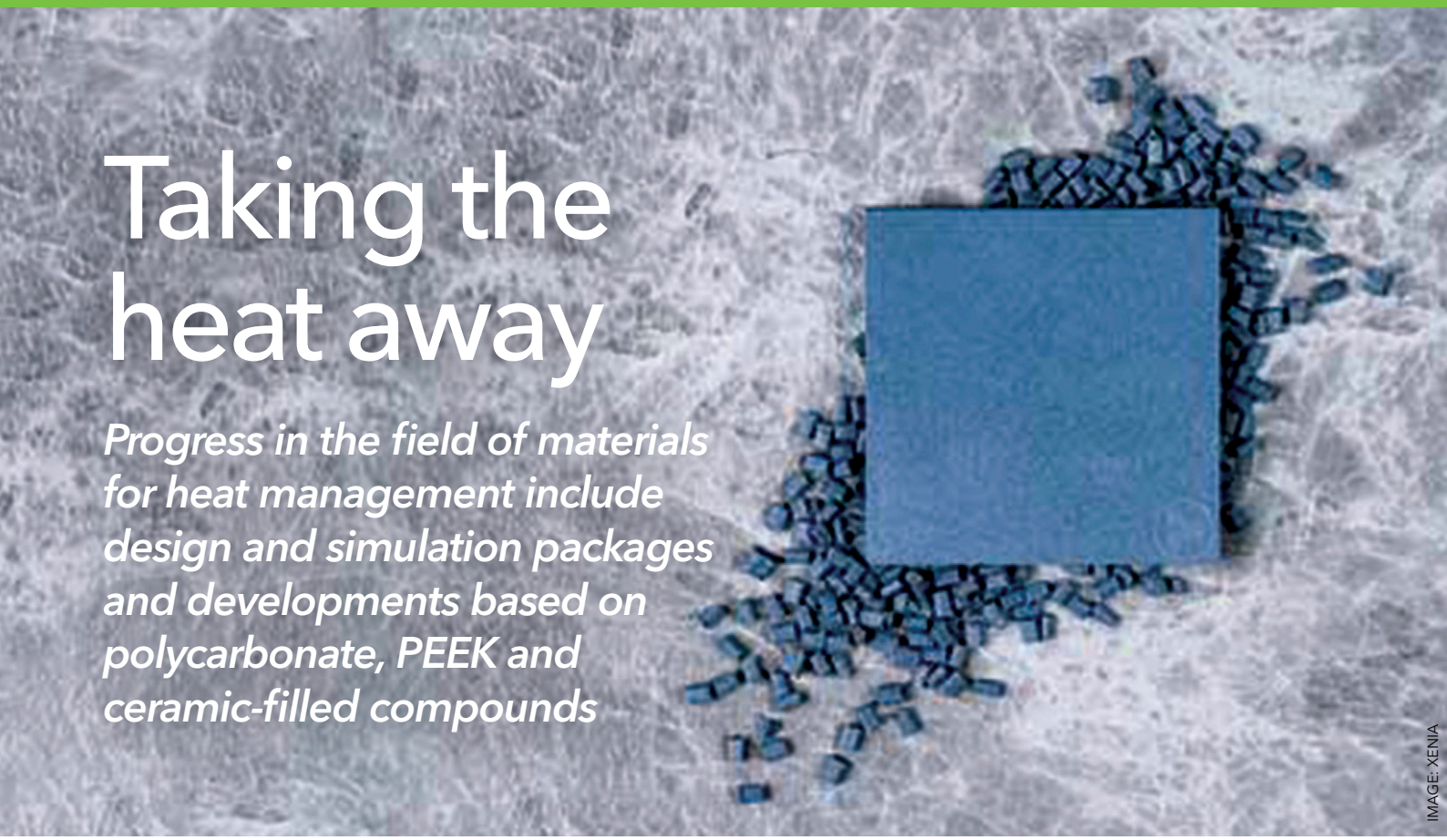


IMAGE: XENIA

Main image: Xeramic Core compound from Xenia Materials combines carbon fibre with ceramic reinforcement

Global megatrends such as electrification, miniaturisation and sustainable design have placed an emphasis on development of thermally conductive plastics with improved performance. Polymeric materials have been overshadowed by metals in heat management, but thanks to breakthroughs in thermal performance and processability, new thermal compounds are making their way into more applications.

At the leading tech event CES 2025, which took place in Las Vegas, US, in January, **Covestro** unveiled a digital design and simulation suite tailored for its Makrolon TC thermally conductive polycarbonate family, enabling engineers to seamlessly design heat-managing parts. Coupled with new grades targeting applications like LED luminaires and battery modules, these offerings can halve the weight compared to aluminium alternatives and maintain flame-retardant and dimensional stability.

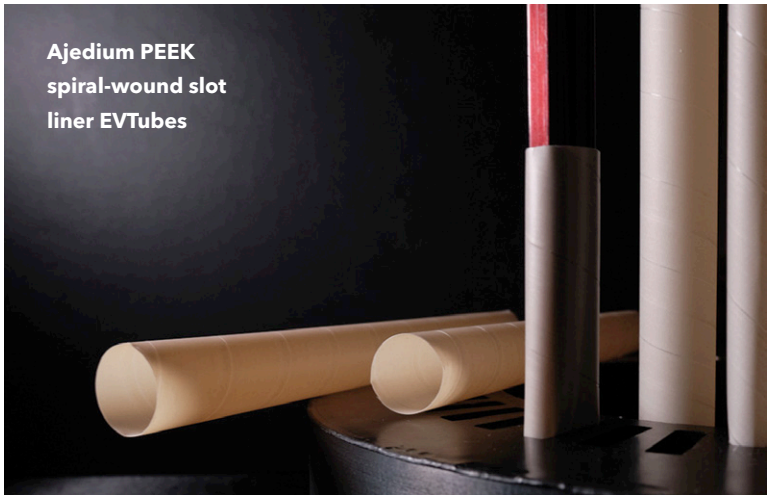
Covestro said high-fidelity simulation will improve the accuracy of predicting the thermal performance of injection moulded heatsinks made using its Makrolon TC product line. Using micromechanics, the new ability to account for the directional, or anisotropic, thermal conductivity from fibre filler particle orientations in a moulded heatsink increases the accuracy in the downstream heat transfer simulation using computational fluid dynamics (CFD), said Covestro.

The company has also developed the Makrolon TC Heatsink Screener, a web-based tool based using artificial intelligence to give customers the ability to virtually test their own heatsink designs using various Makrolon TC polycarbonates and compare them with traditional metal materials, namely die-cast aluminium. The Heatsink Screener tool also offers optimised design configurations that balance heat management with weight and cost advantages.

Eric Saks, Industrial Marketing for Electronics at Covestro, said: "These digital developments are great examples of our commitment to our customers to be innovators of more sustainable polycarbonate-based solutions, not only in mobility, but across many markets – such as electronics – where heatsinks are used in a broad range of applications."

In applications such as Wi-Fi routers, Makrolon TC PC materials combine the benefits of good thermal conductivity with stable radio frequency transmission, avoiding signal shielding, and making it easier to integrate an antenna into any router, wireless device or household appliance. In LED applications, the PC materials act effectively as a heat sink, but are lighter than aluminium and offer designers opportunities to reduce component complexity and assembly cost.

Karen Guzman, Industrial Marketing for Mobility at Covestro, said the company also sees potential in automotive lighting due to "significant weight and cost saving opportunities enabled by Makrolon TC". This market potential adds to the use of Makrolon TC in various other E-mobility applications. For example, in electric vehicle (EV) batteries



Ajedium PEEK spiral-wound slot liner EVTubes

IMAGE: SYENSQO

thermally conductive polycarbonates allow the design of innovative cooling cell holders, according to the Covestro website.

EV applications

In March, **Syensqo** announced a strategic partnership with **Politubes** to develop slot liner spiral-wound tubes for EV motor applications using its Ajedium polyetheretherketone (PEEK) and polyphenylsulfone (PPSU) film. These insulating tubes leverage the high-performance properties of Ajedium PEEK motor efficiency by up to 2%, enabling a more effective copper fill factor and improved heat dissipation, said Syensqo. This allows manufacturers to benefit from lightweighting and reduced total costs, while gaining higher efficiency and increased packaging space within vehicles.

"Over the past years, we've seen increasing demand from automotive original equipment manufacturers for EV Tubes made with PEEK or PPSU," said Federico Penzo, CEO of Politubes. "We are thrilled to partner with Syensqo, a trusted partner in advanced materials, to meet these customer requests and deliver high-quality solutions."

Syensqo said Ajedium PEEK slot liner spiral-wound tubes address the growing demand for highly efficient, sustainable and innovative solutions within the electric motor market. Brian Baleno, Director of Global Business Development & Program Management at Syensqo, said: "This collaboration [with Politubes] allows for greater e-motor design freedom, meeting the needs of automotive Tier 1 manufacturers and OEMs."

Ajedium PEEK film technology for e-motor slot liners was a 2025 winner of *Automotive News* PACE Pilot Innovation to Watch awards. The recognition followed an extensive review by an independent panel of judges, including a comprehensive written application and a virtual pitch session. (Also see *Compounding World* July 2025 for more on Ajedium PEEK's automotive applications.)

The heat dissipation performance of ceramics make these materials attractive for sustainable design when compounded with a polymer. Italy-based compounder **Xenia Materials** has developed the Xeramic range of ceramic thermoplastic compounds to deliver high performance combined with refined aesthetic appeal. It launched the new products at the EPHJ exhibition in Geneva, Switzerland, in June, which showcases high precision engineering and manufacturing, microtechnology and medical technology.

The company said: "Thanks to its ceramic content, Xenia's Xeramic range offers high thermal conductivity, enabling efficient heat dissipation and

AMI COMPOUNDING & RECYCLING EXPO

23-24 September 2026 • Messe Frankfurt

CONNECT. INNOVATE. ELEVATE.

FIND OUT MORE >

EXHIBIT >

a cold-touch surface, as well as high density, making it a distinctive addition to Xenia's typically lightweight-focused portfolio."

Xeramic compounds are formulated by combining selected base polymers with a precisely engineered ceramic filler. They are available in a bio-based PPA polymer matrix: Xeramic Pure has a high level of ceramic content, while the Core version combines carbon fibre with ceramic reinforcement.

The Pure version "delivers a unique balance of performance, thermal conductivity and aesthetic refinement, making it ideal for applications where surface quality and high properties are both essential", said Xenia. It says Core is an innovative formulation, based on a bio-sourced PPA polymer matrix, and merging the distinctive characteristics of ceramic reinforcement with the mechanical properties of carbon fibre.

Ceramic benefits

Ceramic-filled thermoplastics are also the focus of a project undertaken by researchers at **Northeastern University**, in Boston, USA. Its website reported on the project in July, quoting lead researcher Prof Randall Erb, head of the university's Directed Assembly of Particles and Suspensions Lab: "Managing heat is a big challenge for power electronics and devices like radar antennas. When electronics overheat, you either have to slow them down or turn them off. That might be fine for a phone, but not for critical systems like radar."

The Northeastern researchers worked in collaboration with the US Army Research Laboratory, developing a material that combines ceramics, polymers and additives. The team used 3D printing to engineer the material, using the process to position ceramic particles and then heating to connect them with the polymer. This creates a network which allows heat to travel efficiently, making the material even more thermally conductive than stainless steel, while being four times lighter, according to the website.

"These new materials can cover and protect circuits without causing electrical shorts," said Erb. "They help pull heat away from advanced telecommunication devices without blocking their signals."

Former PhD student Daniel Braconnier said: "Industry keeps pushing for higher power in smaller packages, which means devices keep getting hotter." As well as small devices, the researchers see potential for the materials to be used in EVs. "Our material could be used around battery cells to spread out and remove heat, helping prevent thermal runaway events," said Erb.

The team is now looking at ways to scale up production of the materials in partnership with the US Army Research Laboratory.

Tisan Engineering Plastics has highlighted its thermally conductive comounds that provide strength, performance and flame retardancy. It said its Tislamid PA 66, which is reinforced with glass fibre and special filler, offers more than 5 W/mK through/plane thermal conductivity as well as advanced flame resistance certified by UL V0 rating up to 1.6 mm, but also maximum glow wire performance with GWFI equal to 960° C. Another grade of Tislamid PA 6 with special filler and glass fibre filler has 5.5 W/mK through/plane thermal conductivity, improved mechanical properties and high strength.

Another highlighted thermally conductive polymer in Tisan's Tisoplen portfolio is a PP-based compound, with special filler offering 0.95 W/mK through/plane thermal conductivity and electrical insulative properties.

CLICK ON THE LINKS FOR MORE INFORMATION:

- **www.covestro.com**
- **www.syensqo.com**
- **www.politubes.com**
- **www.xeniamaterials.com**
- **www.northeastern.edu**
- **www.tisan.com.tr**

IMAGE: BASF

Raising performance in high temperature plastics

High temperature plastics allow superior performance due to their thermal characteristics – in industries including medical, automotive and aerospace

Because certain plastics – such as Peek, PSU and some polyamides – can withstand elevated temperatures, they can replace metal in a range of demanding applications, from automotive to oil and gas.

In a recent example, backup rings injection moulded by Drake Plastics – using 30% glass filled KetaSpire Peek XT resin from **Syensqo** – have helped to extend downhole pump life in oil and gas drilling.

The rings retain higher mechanical properties at elevated temperatures to extend the service life of the equipment. The new Peek formulation offers improved melt stability – which preserves the material's overall properties during high temperature processing compared to conventional Peek, says the company.

Oil and gas downhole equipment must work under aggressive conditions that can shorten the life of components. At the same time, operators are looking to extend the time between shutdowns and cut overall maintenance costs. This can be achieved by using higher-performing materials – and was seen in Drake's collaboration with an oil and gas equipment customer.

"Our customer wanted us to supply backup rings that would exceed the thermal resistance of the standard grades of Peek traditionally used in pump components," said Wayne Free, global sales manager at Drake. "After a review of the operating environment, Syensqo recommended KetaSpire Peek XT, a new grade that raises the bar on the upper temperature limits of the polymer."

Performance and processing evaluations led to

Main image: BASF says its Ultrason E 2010 BMB is the world's first biomass-balanced PES

IMAGE: SYENSQO

Above: Syensqo has raised US production capacity of its Udel polysulfones by more than 25%

the specification of 30% glass-reinforced Peek XT 920 as the best way to achieve the thermo-mechanical properties required by the customer.

Peek XT technology uses the same ether-to-ketone ratio as standard Peek, and imparts higher temperature resistance and melt stability during processing. This helps preserve the material's mechanical properties during high temperature moulding, adding to its performance consistency.

KetaSpire Peek XT 920 claims to be the industry's "first true high-temperature polyetherether ketone". It exhibits a boost in durable mechanical properties, including tensile modulus and tensile strength, at temperatures up to 175°C. This was essential for Drake's backup ring, where standard Peek fell short of the required 170°C.

IMAGE: DRAKE PLASTICS

Above: Syensqo's glass-filled KetaSpire Peek XT has helped extend the life of downhole pumps

With a 20°C higher glass transition temperature (Tg) and 45°C higher melt point (Tm) than standard Peek, the material still maintains its lower melt viscosity after shear compared with PEK or PEKEKK – and so offers better flowability for complex parts in injection moulding.

Brian Quance, sales and applications engineer at Drake Plastics, added: "With KetaSpire Peek XT 920, the legacy of true Peek has been extended to a new level of high temperature resistance."

Capacity rise

At the same time, Syensqo has raised US production capacity of Udel polysulfones (PSU) polymers at its Marietta, Ohio facility by more than 25%.

It says this will help it meet growing demand in critical applications such as life sciences and green hydrogen production.

The materials offer high strength and rigidity, flexible sterilisation options and high resistance to cracking – even at elevated temperatures. They are used in areas such as haemodialysis and medical instruments, as well as playing a role in water purification and green hydrogen production systems.

"Since we embarked on this expansion three years ago, the trend towards higher performing materials with strong mechanical, thermal and chemical properties has continued to grow," said Peter Browning, president of speciality polymers at Syensqo.

The production increase at the Marietta site complements a recent expansion at the company's facility in Augusta, Georgia, where components used in these materials are produced.

Critical component

Envalior – in collaboration with Ford – recently won an SPE award for its contribution to making a critical component: a re-engineered exhaust gas recirculation (EGR) cold tube and diffuser.

By replacing stainless steel with Envalior's Xytron PPS material, the part weight was reduced by 28% and has high chemical resistance.

The EGR cold tube and diffuser can now withstand a highly acidic environment with pH levels of 2.2 and temperatures up to 200°C. The new design also eliminates the need for multiple components, including a gasket, O-ring and fasteners, resulting in a simplified part that directly integrates into the air intake assembly.

"This validates our commitment to material innovation and the collaborative expertise of our team," said Russ Bloomfield, application development engineer at Envalior.

Other partners in the project were Sogefi – which serves as the Tier 1 supplier for the EGR assembly – and Viking Plastics, which moulds the Xytron EGR tube supplied to Sogefi.

Envalior's portfolio includes engineering plastics such as PA6, PA66 and PA46, PBT, PPS and PPA.

"With this range, we can meet different and demanding material requirements," said Tim Arping, director of innovation and advanced development at Envalior.

Recycled PPS

Polyplastics plans to launch a grade of mechanically recycled polyphenylene sulphide (PPS) by the end of the year. ›

AMI | Events

Polyolefin Additives

2-3 December 2025 | Cologne, Germany

Redefining possibilities within performance and sustainability for polyolefin additives

Listen to industry leaders including:

Katrin Markus
Scientist
Fraunhofer Institute

Dr. Hany Anwar
Senior Researcher
Norner

Dr. Niall Marshall
Technical Director
Everspring

Andrea Landuzzi
Global Marketing Director, Polymer Additives Leadership Team

Sponsored by: KISUMA Member of SETOLAS | NJC EUROPE | Onelead

SECURE YOUR PLACE TODAY

Valves at low temperature

Polymers can also be used for extremely low temperature applications. **Victrex**, which supplies both Peek and PAEK, says its Victrex CT polymers have met the stringent specifications outlined by Shell for ball valves in cryogenic services.

New standards for low-temperature valves now include 'Cryo-Peek' as a designated material for cryogenic ball valve applications. Victrex CT polymers have met these specifications, making them a viable alternative to PCTFE in these applications.

The updated MESC SPE 77/302 and SPE 77/200 standards recognise Peek as soft seat/insert material for ball valves used in cryogenic conditions as 'Cryo-Peek'. This approval expands opportunities for valve manufacturers.

Key advantages of Victrex CT polymers include an extended temperature range from -269°C to higher than +260°C, plus improved mechanical and thermal properties compared to fluoropolymers like PCTFE.

"Victrex CT products are the latest example of us developing and commercialising new Peek products that deliver against our customers' needs, enabling them to further innovate," said Jakob Sigurdsson, CEO of Victrex.

The 40% glass fibre-reinforced grade of its Durafide rG-PPS will be available by December 2025, it says.

Polyplastics will be responsible for optimal formulation and objective quality assurance in the project, which intends to achieve 100% circularity of engineering plastics by expanding the applications of mechanically recycled materials.

As part of the company's mechanical recycling business, scraps of glass fibre-reinforced PPS will be collected from customers through an Open PIR Mechanical Recycling Scheme – and used as a raw material to make Durafide rG-PPS. Initially, strict acceptance inspections will be conducted, and metal will be removed. In later processes, recycled materials and some virgin materials will be reformulated to meet the target specifications and compounded under optimal conditions. The materials will undergo the same quality assurance system as that for virgin materials and will then be shipped to customers.

Polyplastics says its recycling scheme will help our customers to reduce and use waste while reducing the carbon footprint of their products. For now, the glass-fibre reinforced PPS collected from customers will be specific grades of its Durafide glass fibre-reinforced PPS.

The company aims to develop a high filler grade as the second iteration of Durafide rG-PPS.

"We intend to establish a system to supply that grade and the 40% glass fibre-reinforced grade to customers in Japan," said the company. "In future, we will build a 'local production for local consumption' recycling chain that is complete within each region or country around the world."

Biomass PESU

BASF says it has developed the world's first biomass-balanced polyethersulfone (PES).

With Ultrason E 2010 BMB, fossil feedstock is replaced with renewable alternatives from waste-based resources and attributed to the product via a certified biomass balance approach, it says.

Ultrason E 2010 BMB is a drop-in solution because it is identical to the standard grade in properties, quality, and certification – such as for food and water contact. As a result, customers do not have to re-qualify their applications or adapt existing manufacturing processes for injection moulding or extrusion.

"With this addition to our Ultrason portfolio we enable our customers' green transformation towards more circular solutions – and this as early as possible on their journey to meet their sustainability targets," said Erik Gubbels of global business development for Ultrason at BASF.

Half of the fossil raw materials required for the manufacturing of Ultrason E 2010 are replaced by

AMI | Events

Polymers in Flooring

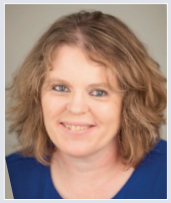
9-10 December 2025 | Berlin, Germany

Discover the latest technological, sustainability, and market trends in the resilient flooring industry

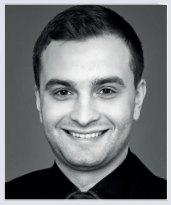
Hear from industry leading speakers, including:

Thorsten Beinke
Design Director, Home & LVT
Tarkett

Joschua Bieger
Designated Managing Director
Kahrs



Jane Gardner
Managing Director
ERFMI



Jan Hudak
Managing Director
Interconnection Consulting

Attend this important event to:

- ✔ Gain valuable insights into diverse sustainability responses across the resilient flooring supply chain.
- ✔ Stay ahead with updates on market and legislative trends that will impact the industry in the coming years.
- ✔ Find actionable solutions to industry challenges through meaningful discussions.

FIND OUT MORE AND JOIN US IN BERLIN

Right: BASF says its Ultramid T7000 PA/PPA blends outperform PA66 for stiffness and strength

ISCC Plus certified bio-circular feedstocks which results in an attributed amount of 39% to the final Ultrason E 2010 BMB grade, says BASF.

Ultrason is name for BASF's range of polyethersulfone, polysulfone and polyphenylsulfone.

In addition, BASF is offering a portfolio of polyamide (PA) and polyphthalamide (PPA) blends that promises more constant mechanical properties than PA66 alone.

Ultramid T7000 outperforms PA66 for stiffness and strength in dry state – and especially in presence of humidity. The PPA portion leads to a lower water absorption, which gives components higher dimensional stability. Ultramid T7000 can be as easily injection-moulded as PA66, giving parts a glossy, smooth surface finish. This makes PA/PPA blend a suitable metal replacement for structural parts that are exposed to moisture, such as mirrors, air brake parts and valves.

These components can also be optimised using BASF's simulation tool Ultrasim for properties such as improving NVH (noise, vibration, harshness) performance. The result is a robust assembly with consolidation of parts, no corrosion, and improved durability, says BASF.

Ultramid T7000 is globally available with different glass-fibre reinforcements up to 60% for highly loaded structural parts. There are also grades in laser sensitive black and surface-improved black.

"In collaboration with our technical service colleagues, we want to inspire our customers to investigate other weight- and cost-saving opportunities for metal replacement, which is now possible with Ultramid T7000," said Andre Schäfer of global business development PPA at BASF.

IMAGE: BASF

Bio-based PA

Xenia has developed a new carbon-fibre reinforced material, based on bio-based PA10.10, with high strength and temperature resistance.

With up to 50% carbon fibre reinforcement, XECarb 31 ensures increased stiffness, making it ideal for structural applications that need high mechanical strength. In addition, it is suited for environments that require higher operating temperatures without compromising performance, thanks to its high melting point.

The PA10.10 base polymer ensures lower moisture absorption, which improves long-term durability. Its cold impact resistance makes it suitable for applications that are exposed to low temperatures, such as outdoor environments and high-altitude settings.

›

The combination of lightweight construction and rigidity makes it optimal for high-performance sports equipment, says Xenia. The material raises product durability without adding unnecessary weight.

In the industrial sector, chemical resistance and mechanical stability are key advantages for parts exposed to harsh working conditions. This includes applications where the material's ability to withstand heat, oil and grease ensures longevity and reliability.

Composite innovation

At the recent JEC World event, **Arkema** launched several innovations including Rilsan PA 11 – a bio-based solution for composites.

Rilsan is used in to produce bio-based composites for transport, aerospace and sports applications. With an optimised melting point, can be easily processed with natural fibres such as flax, hemp, and bamboo without degradation. Both polyamide 11 and natural fibres are derived from renewable resources, making these composites more sustainable and recyclable than traditional materials, says Arkema.

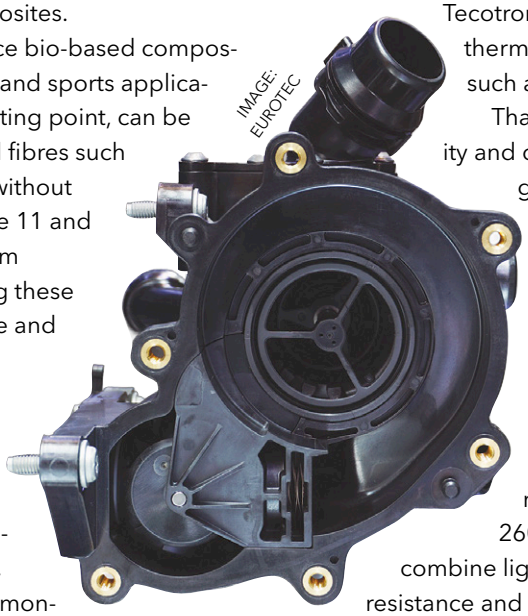
The company also showcased its UDX tapes – which combine carbon fibres and bio-based thermoplastic polymers. In addition, the HAICoPAS aerospace demonstrator showcased the performance of next-generation thermoplastic composites.

HAICoPAS is a technology demonstrator made from HexPly thermoplastic composites, using Arkema's Kepstan PEKK resin and Hexcel's HexTow® AS7 and IM7 carbon fibres. The material meets the needs of the aerospace industry, offering productivity gains and enhanced recyclability due to its thermoplastic nature. As part of this demonstrator, a continuous, dynamic in-situ welding (ISW) process has been co-developed by the Institut de Soudure and Arkema to meet the structural assembly needs of aerospace manufacturers.

Raised temperature

Temperature resistance is a property that often limits the use of plastics in applications such as automotive and electronics. The performance of materials such as PPA, PPS and Peek means they can be used in areas like ignition components and sensors for under hood components in cars, as well as in sockets and coils in electronic systems. Automotive manufacturers also need to achieve more power from smaller engines – meaning they must run at higher temperatures.

Eurotec offers several materials in this area. Its Tecomid HT (PPA) and Tecotron XS (PPS) have continuous use temperatures (CUTs) of up to 180°C and 210°C. A 40% glass fibre-reinforced grade of Tecomid HT is being currently used by a leading automotive OEM for an inverter housing application – where standard PBT and PET cannot provide the required CUT. At the same time, 50% and 30% versions of this were designed for use in gear lever and high-heat lamp socket applications, respectively. A 30% glass fibre-reinforced grade of Tecotron XS has been used in thermal management systems such as a thermostat housing.



Left: A 30% glass fibre-reinforced grade of Eurotec's Tecotron XS PPS has been used in a thermostat housing

Thanks to its thermal conductivity and dimensional stability, a 65% grade of Tecotron XS has been used for an insulation coil application. For brush holders in E-motors, a 40% reinforced version has been used.

If a higher temperature is needed – such as in aviation – PEEK is typically the right material to withstand up to 260°C. Tecopeek grades combine light weight, high thermal resistance and mechanical properties.

Tecopeek PK40 CR30 BK111 is designed to overcome corrosion issues and is used in metal replacement applications such as gears, bearing rings and pump components. Tecopeek PK40 CR30 BK111 RT 0D with a tensile strength of 23,500 MPa and 215 MPa is tailored to solve the problems equipment that operate under high temperatures and are exposed to constant wear, such as chain bushings in a textile machine.

"We develop products that offer accurate solutions to our customers," said Buket Turan, technical marketing manager at Eurotec.

CLICK ON THE LINKS FOR MORE INFORMATION:

- **www.syensqo.com**
- **www.basf.com**
- **www.envalior.com**
- **www.polyplastics-global.com**
- **www.xeniamaterials.com**
- **www.arkema.com**
- **www.eurotec-ep.com**
- **www.victrex.com**

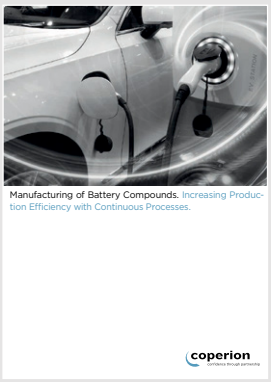
Download these new product brochures

FEDDEM: COMPOUNDING TECHNOLOGY

In this company profile brochure, Feddem presents its compounding technology portfolio, including FED-MT co-rotating twin-screw extruders, plus FSB feeder, FSV side vacuum, and FSE side venting units.

› CLICK HERE TO DOWNLOAD

COPERION: BATTERY COMPOUNDS



In this brochure, Coperion and Coperion K-Tron provide details of their technologies for manufacturing high quality battery compounds.

› CLICK HERE TO DOWNLOAD

TA INSTRUMENTS: ANALYTICAL SOLUTIONS

An extensive range of polymer analysis solutions from TA Instruments enable R&D and processing staff to characterise materials at resin, compounding and converting operations, as shown in this 32-page brochure detailing technologies, applications and case studies.

› CLICK HERE TO DOWNLOAD

CABOT: SPECIALTY CARBON BLACK

This brochure from Cabot details the company's range of Vulcan specialty carbon blacks for formulation of low moisture absorption electrically conductive plastics for applications such as ESD packaging.

› CLICK HERE TO DOWNLOAD

KLK OLEO: GREEN ADDITIVES

KLK OLEO provides a series of products for industrial application. PALMOWAX and PALMESTER provide a green lubricant solution to polymer processing. TEMEST, PALMERE and PALMERA as green ingredients for PVC additives/plasticiser.

› CLICK HERE TO DOWNLOAD

SUKANO: BIO-MASTERBATCHES

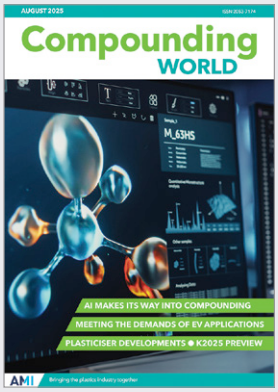
Switzerland's Sukano offers a full range of bioplastic masterbatches and compounds to allow processors to maximise the performance of bio-based resins such as PLA and PHA and to simplify and speed up processing.

› 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. Or download the issue in the relevant Apple or Android app

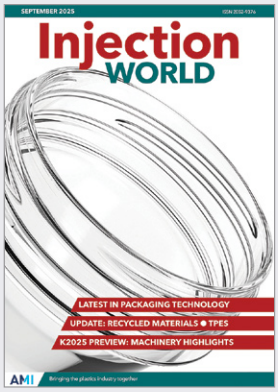


Compounding World August 2025
A new trend for AI to be used in compounding is the subject of the cover feature in the August issue of Compounding World magazine. Plus features on new materials in automotive applications and developments in plasticisers.

› CLICK HERE TO VIEW

Compounding World July 2025
The cover story in the July issue of Compounding World magazine takes a look at the different antimicrobial additives and processes available to compounders, while other features are on materials handling, colour measurement and odour/ emissions control.

› CLICK HERE TO VIEW

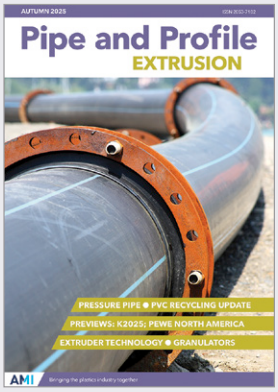


Injection World September 2025
This year's K Show figures largely in the September issue of Injection World, with a feature on packaging developments with all-electric machines and a preview of major machinery exhibitors. Plus thermoplastic elastomers and materials containing recyclates are also covered.

CLICK HERE TO VIEW

Plastics Recycling World July/August 2025
The cover feature of Plastics Recycling World's July-August edition looks at EU regulation driving the use of recycled plastics in cars, while other features provide updates on chemical recycling and washing technologies.

› CLICK HERE TO VIEW



Pipe and Profile Autumn 2025
Pipe and Profile Extrusion's Autumn edition has a cover feature that looks at what's new in high pressure pipe, and features on PVC recycling, new granulators and extruder technologies, plus previews of K2025 and the US Plastics Extrusion World Expo.

› CLICK HERE TO VIEW

Film and Sheet July/August 2025
The cover story in Film and Sheet Extrusion's July-August edition checks out the latest in bio-based plastics and their applications, while other articles cover pouches, downstream equipment and how to prepare for visiting the K Show.

› 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

2025	**10-11 September**	RACE: Compounding World Expo, Mumbai, India	www.compoundingexpoindia.com
	8-15 October	K2025, Dusseldorf, Germany	www.k-online.com
	12-13 November	Compounding World Expo N America, Cleveland	https://na.compoundingworldexpo.com
	4-7 November	Ecomondo, Rimini, Italy	www.ecomondo.com
	3-6 December	PlastEurasia, Istanbul, Turkey	https://plasteurasia.com
2026	**9-12 January**	Plastex, Cairo, Egypt	www.plastexegypt.com
	20-22 January	Swiss Plastics Expo, Lucerne, Switzerland	https://swissplastics-expo.ch
	5-10 February	PlastIndia, New Delhi, India	www.plastindia.org
	4-6 March	Asiamold, Guangzhou, China	www.asiamold-china.com
	10-12 March	JEC World, Paris, France	www.jec-world.events
	11-12 March	PlastExpo Nordic, Helsinki, Finland	https://pfsptec.messukeskus.com
	26-28 March	RePlast Eurasia, Istanbul, Turkey	www.replasteurasia.com
	30 March – 1 April	Plast-Alger, Algiers, Algeria	www.plastalger.com
	31 March – 2 April	Plastics & Rubber Vietnam, Ho Chi Minh City	https://plasticsvietnam.com
	13-17 April	Wire, Dusseldorf, Germany	www.wire-tradefair.com
	21-24 April	Chinaplas, Shanghai, China	www.chinaplasonline.com
	22-23 April	PlastTeknik Nordic, Malmö, Sweden	www.plastteknikнordic.com
	29-30 April	Textiles Recycling Expo, Charlotte, NC, USA	www.textilesrecyclingexpo.com

AMI CONFERENCES

15-17 September 2025	PVC Formulation Europe, Düsseldorf, Germany
11 November 2025	Performance Polyamides, Cleveland, OH, USA
11 November 2025	PFAS North America, Cleveland, OH, USA
11 November 2025	Polymers in Flooring, Cleveland, OH, USA
18-19 November 2025	Cables Asia, Bangkok, Thailand
1-3 December 2025	Fire Resistance in Plastics, Düsseldorf, Germany

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.compoundingworld.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.