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PLASTISCOPE

The Official Journal of the Organization of Plastics Processors of India

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FROM THE PRESIDENT's DESK

Mr. Dilip Parekh

OPP

CONTENTS

Dear Members,

Greetings from Organization of Plastics Processors of India!

The financial year 2022-2023 is about to end. I presume all of you had a Good Financial year on account of the following :-

- There was no major impact of Russia - Ukraine war on Indian Economy
- Crude oil imports were at discounted rates
- K-2022 and PLASTINDIA - 2023 offered good business opportunities and enquiries to the Indian Plastics fraternity
- Union Budget 2023-2024 maintained status - quo with respect to customs duty on Polymers

Approx. 160 foreign buyers have confirmed their participation in PLEXCONNECT 2023. I appeal to all members to participate in PLEXCONNECT 2023 for boosting their exports.

Department of Chemicals and Petrochemicals had convened a meeting on 3rd March 2023 for discussions on Quality Control Orders on Polyethylene and Linear Alkyl Benzene due for enforcement from 3rd April 2023. We have represented to Department of Chemicals and Petrochemicals to defer the implementation of these QCOs.

We had also given the following suggestions in respect of ERP implementation in the DCPC meeting held on 13th March 2023 :-

- Micro and Small Producers should be kept out of the purview of ERP
- Producers should be exempted from EPR registration for a period of at least 1 year (ending 31st March 2024), in which time the effort should be to streamline the portal for all its deficiencies.
- Rigid containers of industrial utility should be kept out of the ambit of EPR.

With Best Wishes,

Dilip Parekh
President

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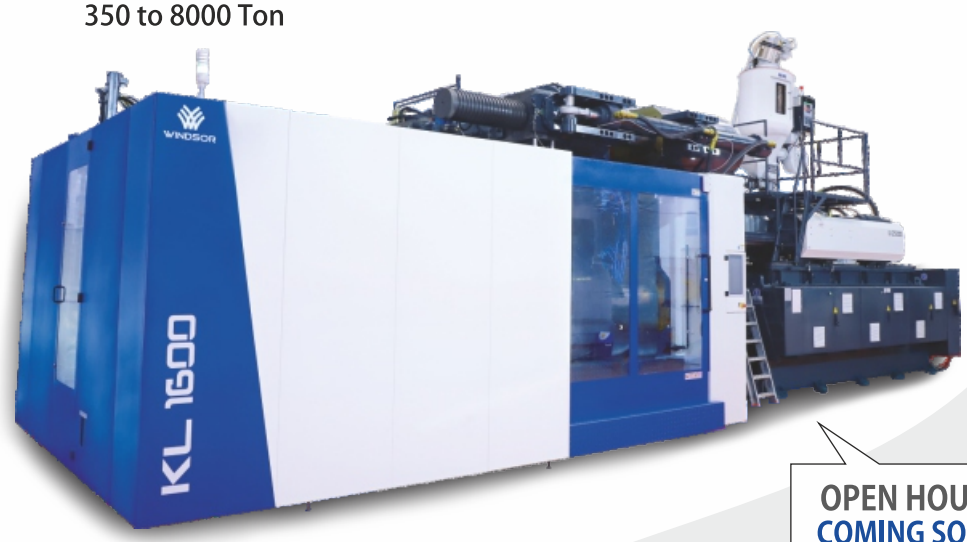

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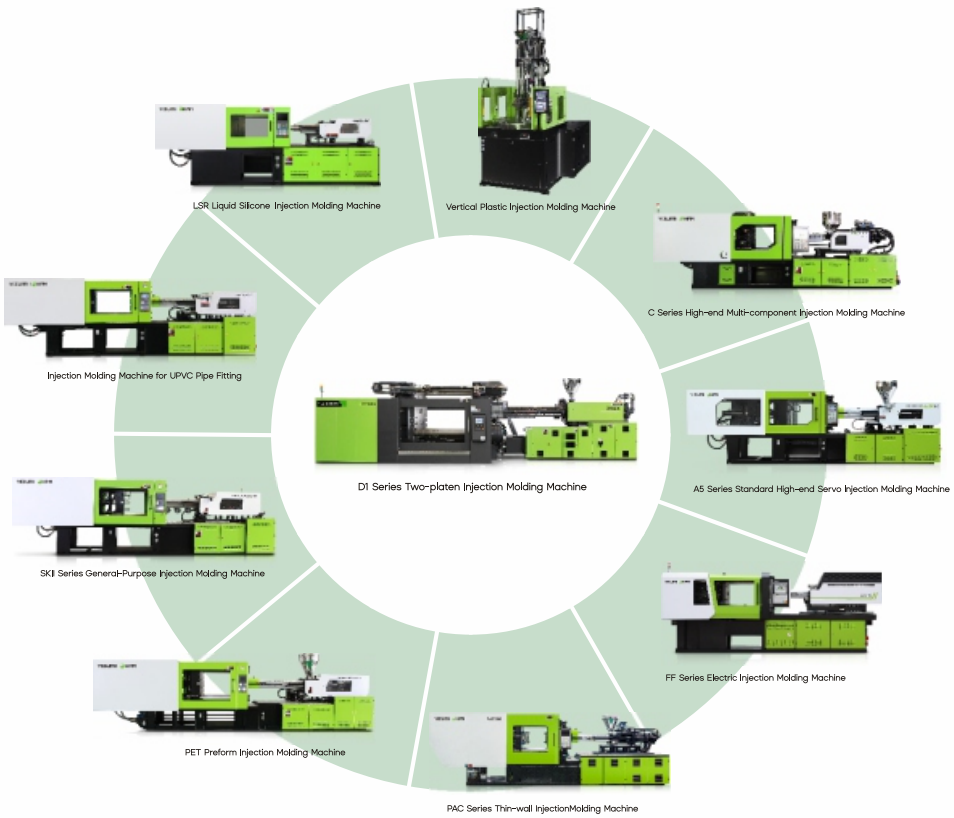

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- The Exhibition is being held in India's commercial capital, Mumbai

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PLEXCONNECT 2023 is supported by the Ministry of Commerce, DCPC as well as the MSME Ministry.

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- Select 600 International Buyers from 115 countries to network and meet with Indian Exporters at the RBSM
- Themed & State Pavilions
- 10,000 + Visitors
- Focuses on MSME Exporters
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[Exhibit Profiles]

- Plastic: Plastic Bending Machinery, Blow Molding Machines, Extruding Machines, Plastic Compounding Equipment, Plastic Cutting Machines & Cutters, Die Cutting & Casting Machines, Plastic Dryers & Mold Heaters, Injection Molding Equipment, Mold Cleaning Equipment, Spin Casting Equipment, Thermoforming Machines.
- Plastic & Rubber Raw Material & Auxiliaries
- Rubber: Rubber Bending Machinery, Mixing & Refining Machines, Product Molding Equipment, Press & Molding Equipment.
- Quality Detection Instrument and Equipment: Measuring & Detection Equipment, Temperature Controller & Components, Electronic Automatic Instrument, Monitoring Device.
- Machinery Parts and Accessories
- Packaging: Converting Machinery, Packaging Machinery, Packaging Materials, Raw Materials & Auxiliaries, Fiberboard Packages, Paper Bags and Folding Cartons, Rigid Packages, Glass Bottles & Tin Cans. Flexible Packaging, Quality Control Systems, Dosing, Coding & Marking Systems, Physical Distribution Systems, Logistics, Research Centers, packaging Magazines & Associations.
- Printing: Printing Machinery & Accessories, Packaging Print & Process Systems, Printing Materials & Supplements, Post-Printing Machinery & Equipment, Coating Equipment, Silk Screen Printing, Pre-Printing Systems, Envelop Making Machines, Inks, Ink Formulating Systems.

[Booth Prices]

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VietnamPlas

21st Vietnam International Plastic & Rubber Industry Exhibition

18th to 21st October 2023

Saigon Exhibition & Conference Center (SECC), Ho Chi Minh City, Vietnam

We have the pleasure of inviting you to participate in Vietnam Plas scheduled from 18th to 21st October 2023 at Saigon Exhibition & Conference Center, Ho Chi Minh City, Vietnam

Show Report 2022

Countries	Booths	Visitors
19	540	13,700

Rising Demand for Plastics

Vietnam imports approximately 1.94 million tons of plastic.

Raw material worth US$ 2.86 billion

Participation Fees :

- ☑ Shell Scheme (Minimum 9 sqm): US $ 320/sqm.
- ☑ Including Needle Punch Carpet: Wall Partitions, Carpet, Company Fascia,3
- ☑ Folding Chairs, 3 Spotlights, 1 Reception Table, 1 Round table, 1 Dustbin,1 Single Phase 5 amp/220v Plug.
- ☑ Raw Space Only (Minimum 36 sqm) : US $ 290/sqm

Please fill up the contract form attached herewith and Emailscanned copy of filled Application form to secretarygeneral@oppindia.org

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Hanoi Plas

The 11th Hanoi Plastics & Rubber Industry Exhibition

8th-11th June, 2023

Int'l Center For Exhibition (I.C.E)

Hanoi, Vietnam

EXHIBIT PROFILES

Plastics: - Blow Molding Machines, Die Cutting & Casting Machines, Extruding Machines, Injection Molding Equipment, Mold Cleaning Equipment, Plastic Blending Machinery, Plastic Compounding Equipments, Plastic Cutting Machines & Cutters, Plastic Dryers & Mold Heaters, Raw Material & Auxiliaries Spin Casting Equipment, Thermoforming Machines.

Rubber: - Flat Plate Vulcanizer Mixing & Refining Machines, Press & Molding Equipment, Product Molding Equipment, Raw Material & Auxiliaries Rubber Blending Machinery.

Quality Detection: -Electronic automatic Instrument, Measuring & Detection Equipment, Mixing & Refining, Machines Monitoring Device.

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Raw Space: USD 250 / sqm (Min. 36 sqm) Corner fee :10% surcharge

Form is attached. Kindly email the scanned copy of duly filled Space Form on secretarygeneral@oppindia.org at the earliest.

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NEWS FROM INDIA

IOCL Seeks Land Transfer From Haldia Fertilizer to Develop an 8.5 MMTPA Petrochemical Complex

Government - owned Indian Oil Corporation Ltd (IOCL) has asked another public sector company Haldia Fertilizer Corporation (HFC) to hand over 175-acres of idle land in Haldia to develop a petrochemical complex with a cumulative capacity of 8.5 million metric tonnes per annum (MMTPA). A urea manufacturing company under the Ministry of Chemicals and Fertilisers, HFC, closed its operations over two decades ago due to a long period of heavy losses. Since then, the land parcel has remained idle.

Now, IOCL has sought the transfer of this idle land to develop a petrochemical project. The company's Paradip refinery has already been transformed into an area for investing in petroleum, chemicals, and petrochemicals. With a cumulative capacity of 15 MMTPA, the Paradip refinery is now surrounded by various petrochemical facilities. Presently, IOCL considers Paradip refinery as a high - profit margins unit that the company plans to replicate at Haldia.

Indian Oil Corporation Ltd's (IOCL's) some of recent expansions

Project site	Capacity additions (MMTPA)	Investment (Rs. Crore)	Descriptions
Paradip refinery	2.822	58,042	For manufacturing ethylene, polypropylene, polyvinyl chloride (PVC), phenol, isopropyl alcohol (IPA) etc.
Panipat refinery	10	34,627	Installation of polypropylene and catalytic dewaxing units
Gujarat refinery	4.3	18,936	Petrochemical and lube integration
Barauni refinery	3.0	14,810	Refinery capacity additions and implement polypropylene unit
Paradip refinery	PTA - 1.2 PX – 0.78	13,805	Integrated projects
Paradip refinery	-	5,654	MEG recovery

Source: Indian Oil Corporation Ltd (IOCL) website; MMTPA = million metric tonnes per annum; Purified Terephthalic Acid (PTA) and Paraxylene (PX)

Leading petrochemical expansions

IOCL has been leading refining and petrochemical capacity expansions in India for the last several years with an aim to meet the country's future demand amid expectations of an automatic increase in consumption with a sustained rise in population. The Central Public Sector Undertaking (CPSU) has announced several capacity expansions through both brownfield and greenfield routes to widen the existing portfolio and add new ones.

Recently, the company declared its intention to set up a mega Dual Feed Cracker (DFC) at its Paradip refinery in Odisha with a proposed capital investment of Rs 58,042 crore. IOCL has already obtained a state Cabinet nod for a special package of incentives to the tune of Rs 60,000 crore for this project. With a cumulative capacity of 2.822 million tonnes, the company plans to manufacture ethylene, polypropylene, polyvinyl chloride (PVC), phenol, isopropyl alcohol (IPA), etc.

The proposed DFC will enable significant industrial development in various downstream industries such as plastic, pharma, API, agrochemical, and fast-moving consumer goods (FMCG) products like personal care articles, specialty chemicals, paints, and packaging materials. This project will help a large number of micro, small and medium enterprises (MSMEs) to prosper in the state and help employ skilled and unskilled manpower in the allied sectors as well.

The board of India's petrochemical giant also gave a nod for an investment of Rs 13,805 crore towards setting up a plant in Odisha's seaport city of Paradip, solely dedicated to manufacturing raw materials for the textile sector. The construction of this PX and PTA plant is slated to complete by 2024.

The petrochemicals complex will have a PX production capacity of 800,000 tonnes per annum which would serve as the feedstock for manufacturing purified terephthalic acid (PTA), a key raw material for the production of polyester yarns. The PTA plant capacity would stand nearly at 1.2 million tonnes per annum post - commissioning. In addition to bringing its petrochemicals product portfolio closer to India's textile - yarn manufacturing units, the project assures to generate about five million man-days of employment over the next three years of the plant's construction.

Plant backed by IOCL's MEG facility in Paradip would serve as a source of feedstock for the company's upcoming 300,000 tonnes per annum textile yarn manufacturing project located in the city of Bhadrak in Odisha. The 357,000 tonnes per annum MEG facility is already under implementation. This project is aimed to meet India's medium to long - term demand on expectations of a possible shift in orders from China to other parts of the world of which India will be the biggest beneficiary.

Projects in line

Among others, IOCL has announced a capacity addition of 10 million metric tonnes per annum (MMTPA) to its existing refinery at Panipat. To meet future demand, the company has proposed to expand its capacity to 25 MMTPA from the existing 15 MMTPA at a total capital outlay of Rs 34,627 crore. The project will also involve the installation of polypropylene and catalytic dewaxing units.

At the Gujarat refinery, the company proposes to invest Rs 18,936 crore for petrochemical production unit capacity expansion from the current 13.7 MMTPA to 18 MMTPA. The project envisages capacity expansion along with its integration into lube and petrochemical production units. This project comprises a revamp of all main and associated production facilities.

With an investment of Rs 14,810 crore, Indian Oil Corporation Ltd is expanding its refining capacity from 6 MMTPA to 9 MMTPA at its Barauni facility. The expansion would enhance the flexibility in operations and would also improve the refining margin. The project also involves a proposal to implement a polypropylene unit to process 200,000 tonnes per annum of feedstock. There are several such projects, the CPSU has taken to boost the availability of crude oil derivatives.

Adani Group Suspends Work on 2MTPA Coal - to - PVC Plant at Mundra to Consolidate Business

Aiming to consolidate operations and address investor concerns after the United States - based short-seller Hindenburg reported irregularities, Adani Group has decided to suspend work on its Rs 34,900 crore petrochemical project in Gujarat. The Group's flagship company Adani Enterprises Ltd (AEL) incorporated a wholly - owned subsidiary Mundra Petrochem Ltd. in 2021 to set up a 2 million tonnes per annum (MTPA) greenfield coal-to-polyvinyl chloride (PVC) plant on the land currently under possession of its group company Adani Ports and Special Economic Zone (APSEZ) in Kutch district of Gujarat.

This casts a shadow on the raw material sourcing business also. The Group had earlier cited plans to venture into the business to supply raw materials to meet its PVC plant. Although the coal-to-PVC plant was initially thought to become a costly proposition, it could have been helpful in stepping ahead in India's self-reliance in PVC supply. This is worth mentioning here that India currently meets over 55 percent of its demand through imports. Industry sources estimate India's PVC demand growth at around 7 percent with cumulative annual consumption at 3.5 million tonnes.

Hindenburg, a research firm that has been popular for its short-selling tactics in the financial investment markets, came out with a damming report on January 24 this year alleging stock manipulation and accounting fraud, among other governance lapses across several verticals of Adani Group. After the publication of this report, Adani Group is reported to have lost market value to the tune of around US$140 billion across its various companies. In the rupee terms, the company is assessed to have lost around Rs 12 lakh crore.

With this valuation collapse amid losing investors' confidence, Gautam Adani, the chairperson of Adani Group, has now slipped to the 30th position in the list of the world's richest persons from the third rank before the report. Owing to the weak sentiment about the present and future businesses, Adani Group has been suspending work on its budding greenfield and brownfield projects.

Interestingly, Adani Group has not only clarified to have done anything wrong but also committed to its comeback strategy by claiming that 'the report is baseless'. The strategy, however, is based on addressing investor concerns around debt by consolidating operations, fighting off allegations, and repaying some loans in phases, enabling the group to gain confidence. The Group has repaid some debts and pre - paid a number of finances raised by pledging promoter stakes in various verticals.

Now, the Group has started re-evaluating projects based on financial availability and cash flow. While some of the debts are being repaid, projects in the initial stage of development are being suspended. According to reports, the Group has decided not to go ahead with its coal-to-PVC plant as initially thought to be set up in Mundra, Gujarat. Under re-evaluation strategy, the company has already canceled a Rs 7,000 crore coal plant purchase and shelved proposals to bid for a stake in power trading company PTC to conserve expenses.

The plan

Nearly two years ago, Adani Group has proposed to set up a 2 million tonnes per annum (MTPA) coal-to-PVC plant at an investment of US$4 billion. The project was expected to produce PVC grades such as suspension PVC resin, chlorinated PVC (CPVC), and emulsion PVC (paste). Feedstock coal of about 3.1 MTPA for this project was proposed to be sourced from Australia, Russia, and other countries. The Group expected to commence commercial production on this coal-to-PVC project within four years after receiving statutory approvals.

According to sources, the Group will not be going ahead with at least 1 MTPA of the greenfield PVC project. Understandably, the Group has written emails to its vendors and equipment suppliers to suspend work on this project on an immediate basis. The mail further asks vendors and suppliers to 'suspend all activities of the scope of work and performance of all obligations till further notice due to unforeseen scenario,' for Mundra Petrochemical Ltd's Green PVC project.

The email further states that the Group was re-evaluating various project/s under implementation at the Group level in different business verticals. Some of the ongoing business verticals are being re - evaluated for their continuation and revision in timeline' based on future cash flow and finance. According to reports, the work under the primary industry vertical will come for further re - evaluation during the next few months.

Ester Industries Commences Commercial Production at New BOPET Telangana Plant

Ester Industries Limited, leading manufacturer of Polyester Films and Specialty Polymers announced that its wholly owned subsidiary Ester Filmtech Limited has commenced commercial production at new Polyester (BOPET) film manufacturing plant in the State of Telangana.

Spread over 50 acres, the 48,000 MTPA unit has been set up at an approximate cost of Rs. 650 crore (including margin money for working capital and GST accumulation). The plant is expected to generate revenues worth approximately Rs. 600 crore upon achieving optimal utilization. development, Mr. Arvind Singhania, Chairman, Ester Industries said “The commissioning of the new unit takes us one step closer in our journey towards transforming Ester into a leading local and global BOPET film manufacturer by offering best - in - class innovative and sustainable products. The new unit provides us the requisite scale and capabilities to help meet the growing BOPET market both in India and overseas offering a range of standard and value added products”.

The products from this new unit will find applications mainly in flexible packaging industry and will help contributing towards strengthening the value chain of the flexible packaging industry. The Company also proposes to export 30-40% of its production, which will help to establish Telangana's footprint on global flexible packaging map.

Cosmo First Expands New Businesses While Temporary Inventory Corrections Impact Specialty Sales

Cosmo First Limited today declared its financial results for the quarter ended Dec 2022.

During the quarter, BOPP and BOPET industry faced excess supply caused due to bunching of new production lines and on the other hand demand disruptions in overseas markets. The contribution margin dropped below sustainable levels and impacted everyone in the industry. The Company mitigated the impact on the back of its strong presence in speciality films segment. The performance could have been better but for

- *One-time inventory loss in Raw materials and Finished Goods (both in India and subsidiaries)*
- *Planned maintenance of some of the production lines*
- *Restricted flow of orders for speciality films due to festive and holiday season in Europe and USA*
- *Larger funding of operating deficit in the rapidly growing Petcare vertical.*

The BOPET line which was commissioned towards the end of last quarter continued to focus on perfecting recipes, processes, and quality parameters for various speciality and value-added films in line with the company's entry strategy in polyester films.

The company's petcare vertical is rapidly expanding and clocked monthly run rate of Rs. 1 crore in sales revenue from its 11 experience centers in various locations and increasing online presence through its website and mobile app.

The company's financials remain strong with annualized ROCE and ROE at 20% and 25% respectively and net debt to EBITDA of less than one time.

In December 2022, the company announced the Buyback of its shares from all the shareholders via the tender route with an outlay of Rs.108 crores. The offer period ended on 9th February 2023 and the shareholders should receive payment by 20th February 2023 as scheduled.

Commenting on the company's performance Mr. Pankaj Poddar, Group CEO, Cosmo First Ltd. said “the near-term outlook for BOPP and Polyester films is expected to be challenging though the company's strong speciality films portfolio should deliver superior returns. Zigly is rapidly becoming well known among pet parents benefitting all pet lovers and the company's shareholders. Specialty chemicals division should double its net revenues while actively focusing on new product launches.”

New Foreign Trade Policy to Focus on MSMEs, Ecomm Zones, AI

India's upcoming foreign trade policy will set up special zones for ecommerce exports and develop new mechanisms to support services related to artificial intelligence and Internet of Things.

India's upcoming foreign trade policy will seek to handhold MSMEs to build their financial capabilities, set up special zones for ecommerce exports and develop new mechanisms to support services related to artificial intelligence and Internet of Things.

The commerce and industry ministry is currently reviewing the existing Foreign Trade Policy. As part of this, it is deliberating on improving India's trade resilience so as to be prepared for unforeseen events such as the Covid - 19 pandemic and integrating Nari Shakti (womanpower) into international trade and value chains to encourage women into export - oriented businesses.

The current policy was announced on April 1, 2015 and was extended till March 31, 2023. As part of the new policy, slated to be released by the end of this month, the government may announce a vision and strategies document for laying the roadmap of goods and services exports from April 1.

Officials said around 10 chapters would be part of the document.

“We are working on ways to facilitate ecommerce exports and discussions are on to setup ecommerce zones on the lines of Software Technology

Parks of India," said one official, adding that detailed strategies to boost ecommerce and build further on Brand India are being contemplated. The ecommerce zones could provide all facilities at one place, including banks, fintech companies, customs clearance and logistics and courier services, along with a separate space for warehousing.

The new trade strategy is aimed at boosting India's goods and services exports that are expected to hit $750 billion in the ongoing fiscal year, compared with $676 billion in fiscal 2022.

Commerce secretary Sunil Barthwal said the ministry has looked at various aspects of the foreign trade policy (FTP) as it is basically a collection of various incentive schemes.

Officials are also adding the aspect of vision into the policy as the ministry is targeting to take the goods and services exports to $2 trillion by 2030.

NCLT Approves Gail (India) Bid to Acquire JBF Petrochemicals for Rs 2101 - CR

The National Company Law Tribunal (NCLT) has approved the government-owned company GAIL (India) Ltd (formerly Gas Authority of India Ltd) bid to acquire the insolvent private sector chemical company JBF Petrochemicals Ltd and revive it, for a total consideration of Rs 2101 crore. GAIL was not the only company that evinced interest in JBF Petrochemicals. As per reports, government and private companies such as consortium of ONGC and Indian Oil, MCPI, Reliance Industries Ltd, KKR Jupiter Investors, HPCL-Laxmi Mittal JV, and even two Jindal Group - backed companies were in the fray for JBF Petrochemicals.

This is one of the rare cases where a public sector entity is acquiring a privately-owned insolvent group and has plans for its revival. In a surprising move, the government owned companies and consortiums have come forward to revive a private company under Insolvency and Bankruptcy Code (IBC).

In October last year, GAIL emerged as the successful bidder for the debt - laden JBF Petrochemicals. GAIL's resolution plan received a 100 percent vote of the committee of creditors (CoC) of JBF Petrochemicals, following that the approval was granted. The insolvency process started under the IBC after JBF Petrochemicals defaulted against a bank loan of around Rs 5,000 crore.

Now the sale of JBF Petrochemicals will equate to a 41 percent recovery for financial creditors. BDO India - backed resolution professional Sudarshan Bhat admitted the cumulative defaulted amount of Rs 5,628 crore (with interest). According to reports, GAIL had offered Rs 2015.4 crore secured and Rs 14.4 crore to unsecured creditors.

GAIL's JBF Petrochemicals acquisition would be only the third such move where a government owned company has acquired an entity under the Insolvency and Bankruptcy Code. Before this, NTPC had acquired Jhabua Power, an Avantha group company, and Indian Oil Corporation came as the successful bidder for Mercator Petroleum Ltd.

While approving the resolution plan, the Mumbai bench of the NCLT headed by a judicial member Dr Madan B Gosavi, and a technical member Ajai Das Mehrotra observed that as far as various statutory rights vested with the corporate debtor in the form of various licenses, leases, and other alike matter, the bench makes it clear that the successful resolution applicant GAIL has to approach the concerned statutory authority for those concessions and those authorities will consider the same as per their established procedure.

The bench approved the assessment as the fair value and the liquidation value of JBF Petrochemicals to the tune of Rs 2719 crore and Rs 1616.6 crore respectively. For JBF Petrochemicals resolution plan, lenders had received seven expressions of interest (EoI) from the joint ventures of government-owned companies and private individual groups. But, only three companies such as IOCL-ONGC consortium, MPCI and GAIL submitted their resolution plan till the scheduled deadline of August 30, 2022.

JBF's corporate resolution plan

The corporate resolution plan of JBF Petrochemicals Ltd was admitted by the Ahmadabad NCLT in February last year, after an out-of-court work resolution collapsed since October 2017. Dubai - based Citex Energy and Assets Care and Reconstruction

Enterprise (ACRE), an ARC-backed by Ares SSG Capital, had offered US$190 million and US$160 million respectively. Reports said that negotiations did not succeed with these interested bidders.

The chemical producer JBF Petrochemicals Ltd has set up a 1.25 million tonne per annum purified terephthelic acid (PTA) plant in Mangalore, Karnataka, at an estimated cost of US$603.8 million. It was a backward integration facility set up by JBF Industries in partnership with KKR to supply PTA to JBF Industries. The plant started a trial run in March 2017 but the company defaulted the same year. Consequently, the company failed to raise an additional US$90 million (Rs 672 crore) long term loan needed to operate the plant.

BASF Begins its First Bio - Based Polyol Production at Mangalore

BASF SE (Ludwigshafen, Germany) has begun production of its first bio - based polyol, Sovermol, in Mangalore, India. This product serves the fast - growing demand of eco - friendly products for applications in New Energy Vehicles (NEV), windmills, flooring and protective industrial coatings in Asia Pacific.

Utilizing the existing facilities at BASF's Mangalore site, the Sovermol production facility is now operational after comprehensive planning and construction.

"At BASF, we leverage our global know - how and competence to serve our markets most effectively. Asia Pacific is the world's fastest growing market for NEV and coatings. The Sovermol production facility is strategically located in Mangalore, close to raw materials supply. This will significantly reduce transportation time and contributes to our ambition to bring "best-in-class" products and services efficiently to our customers in Asia Pacific," said Dr. Claus Dallner, Senior Vice President, Global Business Unit Resins and Additives, BASF.

"We continuously strive to improve our technology and operations to achieve business success. The project demonstrates our capability to make continuous improvements, by remodeling our operations at the Mangalore site," said Dr. Alba Mena Subiranas, Vice President of Operations, Global Business Unit Resins and Additives, BASF.

Sourced from renewable materials, Sovermol contains zero volatile organic compounds (VOC). Sovermol products are used to produce sustainable coatings and adhesives for various industries, enabling customers to reduce their carbon footprint and to save resources.

The BASF site in Mangalore has been in operation since 1996. Spread across more than 200 hectares, it is BASF's largest production facility in South Asia and produces polymer dispersions, fine chemical catalysts and coatings for paper, agriculture and automotive industries.

CPCB Seeks Physical Verification of Plastic Waste Processors before Issuing Operational Certificates

The Central Pollution Control Board (CPCB), the statutory organisation under the Ministry of Environment, Forest and Climate Change (MoEF&CC), has ordered the State Pollution Control Boards (SPCBs) and Pollution Control Committees (PCCs) to do physical verification of the registered Plastic Waste Processors (PWPs) before issuing operational certificates. In a direction issued recently to the SPCBs and PCCs, the CPCB said that the timely completion of the physical verification will complete the registration process of the companies enrolled on the Extended Producers' Responsibility (EPR) portal.

According to the direction, the SPCBs and PCCs of all regions will require to submit the action taken report (ATR) by March 20, 2023, on the physical verifications conducted by them at the units under their jurisdiction till March 15, 2023. According to trade sources, SPCBs and PCCs have already started visiting plastic waste processing units, large collection centres and other facilities, engaged in the circular economy of the plastic recycling industry for compiling reports.

The notification further stated that over 1701 members have registered themselves on the CPCB's EPR portal of which 862

plastic waste processors have been verified physically so far. The SPCBs and PCCs have approved the registration of 620 plastic waste processors, as per the CPCB portal. The EPR portal explains that 1242 brand owners, 1934 producers and 2871 importers with a total EPR handling target of 2.32 million tonnes per annum of plastic waste volume have already been registered.

This is worth mentioning here that the EPR guidelines allow only plastic waste processors registered under Plastic Waste Management Rule, will provide certificates for plastic waste processing, which will be considered for the fulfilment of Extended Producer Responsibility obligations by producers, importers and brand - owners. Non - registered processors, therefore, may be banned from handling plastic scrap therefrom.

CPCB has already made it mandatory for producers, importers and brand owners to provide details of recycling certificates only from registered recyclers along with the details of quantity sent for end - of - life disposal by June 30, 2024, while filing annual returns on the online portal. The details provided by producers, importers and brand-owners and registered plastic waste processors will be cross - checked by the online portal.

By June 30, 2024, however, producers, importers and brand owners (PIBSs) are required to obtain EPR certificates issued by plastic waste processors for the fulfilment of their EPR liability. The CPCB has guided all plastic waste processors to submit their financial report for the handling of the entire quantity of plastic waste by the 31st of March of every year. With this, all processors are required to declare the entire quality of plastic waste recycling and therefore revenue and profit earned by them.

"In view of this, timely completion of physical verification is essential to give adequate time to the PWPs to generate certificates and transfer the same to registered PIBOs enabling them to fulfil their EPR obligations. This is also required to ensure that the PWPs and PIBOs file the annual returns in the same manner as the primary processors, brand owners and recyclers do in the industry," said the notification.

Relief for Taxpayers: Ministry of Finance Extends Deadline for Uploading Invoices on EPR Portal and Allows Bulk Uploads Until May 31, 2023

The Ministry of Finance has issued a circular extending the deadline for taxpayers to upload their invoices on the EPR portal until May 31, 2023, and allowing for bulk uploads. This measure provides relief to taxpayers who have faced difficulties in meeting the deadline due to technical glitches and system errors. However, it's important to note that this is a one-time measure and taxpayers must comply within the given timeline to avoid penalties. The move demonstrates the government's commitment to facilitating tax compliance and promoting ease of doing business.

FSSAI's Directions on Standards of Packaged Drinking Water

Recently, Food Safety and Standards Authority of India (FSSAI) has issued directions under Section 16(5) of Food Safety and Standards Act, 2006. It is regarding the operationalization of Draft Food Safety and Standards (Food Product Standards and Food Additives) Amendment Regulations regarding the standards of Packaged Drinking Water (other than Mineral Water).

Notably, FSSAI has drawn reference to the direction issued vide File No. SS-M015/1/2022-Standard FSSAI dated 30.05.2022, operationalizing Draft Food Safety and Standards (Food Product Standards and Food Additives) Amendment Regulations. w.rt. the values of Total Dissolved Solids, Calcium and Magnesium, and subsequent direction dated 21.06.2022 regarding partial modification in the above directions.

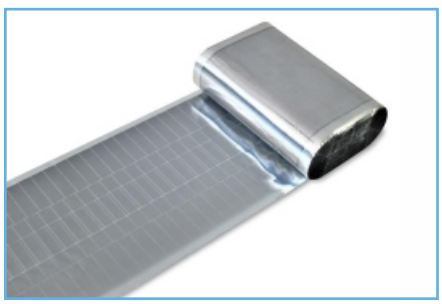
The apex body of Food Safety has received representations from the stakeholders seeking transition time for implementation of the directions, after due consideration of the requests.

Further, the Authority has decided to extend the date of implementation for the above directions by 01.07.2023 or until final notification of ibid draft regulations whichever s earlier. The decision has been taken with the approval of all the Competent Authority in exercise of the power vested under the Section 16(5) of the Food Safety and Standards Act, 2006.

PLASTIC PRODUCTS AND NEW TECHNOLOGIES

SABIC Invests in Expert Validation of ELCRES™ HTV150A Film to Help Enable Adoption of Sic Power Modules

SABIC, a global leader in the chemical industry, will spotlight at the 2023 Applied Power Electronics Conference (APEC), in booth #559, its progress in enhancing, testing and validating high - heat ELCRES™ HTV150A dielectric films that are well - suited for downstream capacitor operations.



The thin films are able to operate at temperatures up to 150°C and can help increase adoption of silicon carbide (SiC) power modules with smaller package sizes and greater energy density. These modules can contribute to the future of hybrid, plug - in hybrid and battery electric vehicles (xEV) by helping to increase range and performance and accelerate charging.

Through a collaboration with Japan's Machine Technologies Co., Ltd., a consulting firm, SABIC is working to help customers streamline capacitor manufacturing by minimizing material variability and aligning film properties, such as slip, with standard processes for biaxially oriented polypropylene (BOPP). To date, Machine Technologies has validated the 5 μm and 3 μm films within the ELCRES HTV150A film portfolio and is currently working with SABIC on thinner gauges. This ongoing collaboration has confirmed the value of ELCRES HTV150A films in supporting the next generation of xEV technology, as well as enhancing critical capacitor applications in industries such as aerospace and alternative energy.

"The capacitor industry is looking for high - voltage, high - heat dielectric films that can enable DC link power capacitors to withstand disruptive hotspot temperatures up to 150°C, and SABIC's ELCRES HTV150A film is the only product to meet known standard requirements," said Dr. Tsuyoshi Kasebe, CEO, Machine Technologies. "Beyond developing higher - performance film solutions, SABIC saw an opportunity to help customers reduce the complexity of downstream operations by proactively aligning its products with current processes. SABIC and Machine Technologies are focused on supporting customers via a rigorous, step - by - step validation sequence that can give capacitor makers greater confidence in their choice of ELCRES film to replace lower-performing materials."

Machine Technologies is comprised of experts with many years of experience developing and manufacturing capacitors. The company's methodology spans multiple process steps, from film metallization to capacitor winding and assembly. Metallized films, prototype elements and prototype capacitors made by Machine Technologies using ELCRES HTV150A film will be on display at the SABIC booth at APEC 2023.

Validating Film for Use in Intricate, Multi - step Processes

Capacitor manufacturing is a highly complex, delicate process that is affected at every phase by film properties. To help customers successfully replace incumbent products with high-heat, high-voltage ELCRES HTV150A film, Machine Technologies evaluates multiple variables to confirm that the film can be used successfully in existing downstream operations. These variables include thickness variation, slip (coefficient of friction) and film roll length.

Data and knowledge acquired from the validation process – and from customer feedback – not only enable SABIC to adjust and improve the formulation and format of existing films, but also help guide development of future products. For example, SABIC has learned that longer rolls are needed to reduce cost and waste in film metallization and is actively investing in equipment to deliver this new capability.

"SABIC continues to innovate on behalf of the power electronics industry by developing ever - thinner gauges of our ELCRES HTV150A dielectric film – while maintaining its signature performance properties," said Ed Kung, senior manager, Resin Design and Incubation, SABIC. "By leveraging the reduced weight and mass and higher energy density of our thin films, customers can design next - generation capacitors that incorporate the newest technologies. These include silicon carbide semiconductors that can deliver fast switching and withstand high temperatures and voltages in capacitor applications such as EV traction inverters, converters and onboard chargers."

High Performance for Professional - grade Power Capacitors

ELCRES HTV150A dielectric film is the first capacitor film in the industry that can provide stable performance at operating temperatures of -40°C to 150°C and frequencies up to 100 kHz, while offering stable capacitance, high insulation resistance and good dielectric performance. It addresses the critical performance gap experienced by traditional polypropylene (PP) films above 135°C. Capacitors built with 3 μm and 5 μm metalized films pass standard electrical and life tests at 150°C for 2,000 hours with low capacitance change and stable insulation resistance. Other key properties include high breakdown strength over the full temperature range, good self - healing and excellent adhesion to aluminum and zinc.

The film has been validated by customers for use with both film-foil and metalized electrodes. Additional key features and benefits, typical properties and potential applications for SABIC's ELCRES HTV150A film portfolio can be found in SABIC's new brochure.

McCormick Redesigns Packaging for Sustainability, Freshness

For the first time in nearly 40 years, McCormick & Co. made a packaging change across the global flavour brand's core red-cap branded herb and spice bottled products.

It's a significant one and involves more than just a packaging change. The new PET bottles that have been tested and preferred by consumers address their desire to cook with the freshest herbs and spices. The brand's new signature Snap Tight lids will assure home cooks that the bottles are closed tight, locking in flavour and freshness between use.

The new bottles have begun to rollout on retail shelves nationwide, and the transition will continue through the year for all McCormick red cap products.

From packaging through at-home use, McCormick has implemented several changes that give consumers reasons to add them to cart. Leveraging the redesign as a substantial opportunity to further their environmental commitments and listening to consumer feedback, the new bottles are made from a 50% post - consumer recycled (PCR) plastic. Prominently printing product names and best by dates on the lid, will help consumers reach for the right flavours.

Clear label designs showcase the transparency and quality of McCormick herbs and spices.

A change was made on the packaging line as well. An improved bottling process draws out excess air during filling, reducing the amount of oxygen inside that can impact freshness over time; and new proprietary Snap Tight lids audibly seal in flavour, so herbs and spices remain fresher, longer.

The company's commitment to using 50% PCR bottles for McCormick's everyday herbs and spices reduces the bottles' carbon footprint by approximately 18 - 23% across all sizes.

LAMILUX Composites Launches a Revolutionary Tank Cladding Material

As the leading specialist for fibre - reinforced composites, LAMILUX Composites, has launched a revolutionary tank cladding material. The new material, developed and manufactured in Germany, is about five times stronger and 30 percent lighter than other tank cladding materials.

LAMILUX X - treme is the spearhead of tank cladding materials. It is a fibre - reinforced composite material with the maximum possible content of reinforcement fibres in a highly elastic epoxy resin matrix. The outstanding toughness saves operators time and money by reducing maintenance and repair costs and also container downtime.

For safe transport in difficult conditions

Tank containers of all kinds are subjected to very high mechanical loads during loading and transport, whether they are used as containers on a cargo ship or as tank containers on trains or on a truck. This is where LAMILUX X-treme comes in: it provides safe and energy-efficient transport of tank containers.

Even under the harshest conditions on the world's roads and seas, the material remains visually appealing and maximizes the durability of the entire structure. The operator also saves on running costs for his fleet, as the tank container has a significantly lower dead weight than one with a conventional exterior shell.

Advantages with LAMILUX X - treme tank cladding

- Reduced maintenance and repair costs
- Maximum durability and less downtime
- High-quality appearance even under the toughest conditions
- Reduced operating costs due to weight reduction

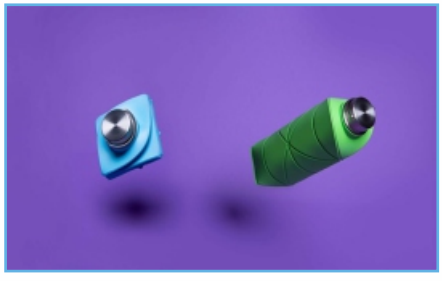
The customer's brand is the most import business value

It's not just about time and money to fix damaged containers, but it's also annoying. Mostly, the containers are repaired via patches, or they are partially replaced with new cladding. This results in containers looking like patchworks and not near a representative as when they were new. The LAMILUX X-treme protects the containers from being damaged, so they don't have to be repaired most of the time. It means that tank containers can remain their new look much longer and represent the customer's brand much better.

LAMILUX fibre - reinforced composites are produced in a continuous, automated production process. The separate production lines ensure minimum delivery times while providing consistently optimum quality, which can be reproduced at any time. The X-treme product range can be made in widths of up to three metres, and the length of sheets or rolls can be changed to meet the customer's needs.

DSM and DiFold Develop Foldable Reusable Bottles

The injection molded reusable packaging from this startup are made from DSM's Arnitel Eco biobased thermoplastic copolyester



DSM Engineering has partnered with Bulgarian startup DiFold on the development of injection - molded foldable products. Specifically, Difold selected DSM's Arnitel Eco biobased thermoplastic copolyester to manufacture its flagship Origami foldable water bottle. Inspired by the Japanese art of paper folding, the patented and award - winning design of DiFold's Origami bottle means it can fold down to less than 10% of its original volume – greatly improving user convenience and reducing the carbon footprint of shipping. The Origami Bottle is said to provide a durable, reusable, and recyclable alternative to single - use water bottles.

Arnitel Eco is a biobased thermoplastic copolyester, partially derived from renewable rapeseed oil. This significantly reduces the material's cradle - to - gate CO2 emissions – delivering a carbon footprint reduction of up to 50% compared to traditional copolyesters. This measurement is based on an in-depth life cycle assessment (LCA), which includes every stage of the material's production, from the growing of the feedstock crops to the finished product that leaves the factory.

According to DiFold cofounders Radina Popova and Petar Zaharinov, circularity and durability were the key factors to consider when choosing a material for their unique product. They wanted a biobased material that could be recycled, as well as having the specific mechanical properties required by the folding design, and found that Anrnitel Eco reportedly offers the perfect balance of elasticity, plasticity, and circularity.

Berry Launches Fully Accredited Child - Resistant PET Bottle Combination for the Pharmaceutical Syrup Market

Berry Global Healthcare is introducing a comprehensive bundle solution to help customers capitalise on the increasing demand for child-resistant (CRC) and tamper - evident (TE) packaging for the pharmaceutical and herbal market for syrup and liquid medicines.

The company is utilising its longstanding design and technical expertise in the healthcare sector to combine a range of bottle and closure solutions that can meet the diverse needs of the market.

The new Berry Healthcare bundle features seven ranges of 28mm neck PET bottles in sizes from 20ml to 1,000ml and a variety of designs, with eight accompanying closures that incorporate tamper-evident and child - resistant features. Customers can select the bottle and compatible closure with liners and dosing cups to meet their particular application and capacity requirements.

This package combination is supplied from eight Berry factories across Europe, ensuring a fast and flexible service for companies of all sizes to help them quickly bring products to market.

Some of the bottles and closures are fully tested and certified as being child - resistant to the latest global standards – ISO8317 standard (EU) & 16CFR1700.20 standard (US). This ensures that the packaging is safe and meets regulatory requirements. The liners that the certification covers are EPE42A, EPE Saranex, F217-4 (PE Faced EPE), and I.H.S . These certifications apply to bottles with 50ml to 250ml capacity.

The variety of PET bottle designs enables manufacturers to choose a solution to satisfy their specific product or branding requirements. PET bottles are the perfect packaging solution for healthcare products, because the strong and lightweight material makes them break-resistant, convenient, safe, and easy to handle during transportation and for the end-user. They also provide an effective barrier against oxygen and moisture ingress, protecting the efficacy of the medicines. The bottles allow products to be clearly viewed and can be easily labelled and branded.

To help companies meet their sustainability objectives, some bottles can be produced in 100% food - grade recycled PET.

Berry says the new Berry Healthcare bundle has been developed in the light of increasing demand for pharmaceutical plastic bottles, caps and closures for the OTC sector, which offer an attractive alternative to glass packaging. The company is seeing particular interest in solutions for coughs, colds and flu remedies, such as syrups and decongestants.

The Berry Healthcare bundle was launched at the recent Pharmapack exhibition in Paris.

Easy to Design Thanks to the Meusburger Colour Codes

Meusburger offers standardised colour codes to simplify 3D CAD design for mould and die making customers. Each colour represents a clearly defined tolerance, and work can be done directly from the 3D model. Downloading is easy via the Meusburger website. The creation of standardised colour codes for 3D CAD design was made possible by Meusburger's collaboration with the Association of German Tool and Mould Makers along with various cooperation partners. In the process, 70 variants of colour code tables were melded into one. Through the defined colours,

tolerances can not only be clearly identified but also recognised in all common CAM systems. This allows you to go paperless and derivations from 2D drawings are no longer necessary.

Further Advantages of The Meusburger Colour Codes

Customers especially benefit from the transferability of models for production at other locations worldwide or by different companies. There are also defined colours for different thread types. Another big advantage is time savings during calculation since the calculator automatically recognises colours and tolerances and does not have to make any corrections. In addition, deep hole drilling lists are created automatically as features are read from the 3D model and correctly identified when imported into the deep hole drilling list. In most cases, the tolerances of the Meusburger colour codes are sufficient, as 4 to 5 colours are usually enough.

With PLEXIGLAS® Molding Compounds, Checkpoint Systems Produces Aesthetically Pleasing Security Antennas in Individual Store Designs

- Checkpoint Systems, the manufacturer of detection systems, is replacing conspicuous gates with a discreet column
- A cover made of PLEXIGLAS® Softlight special molding compound colored in gray enables a homogeneous light effect at a low component depth
- The robust material from Röhm meets sustainability standards in shopfitting thanks to its longevity

Until recently, loss prevention antennas at checkouts or retail exits were often designed as bulky gray panels or pillars with minimal visual appeal. The American company Checkpoint Systems has revealed details of its next generation of aesthetic antennas with innovatively designed covers. Casings on the NS40 and NS42 feature a special light-scattering PLEXIGLAS® product. It enables them to fit seamlessly into the retail environment while delivering an elegant, attention - grabbing light effect. PLEXIGLAS® is the brand polymethyl methacrylate (PMMA) from Röhm in the Americas.

In search of better light

Checkpoint created a product that combined excellent performance with aesthetics, enabling the antennas to complement and blend in with a store's design as much as possible. As the company's Industrial Designer, Ben Rubinstein explains: “Our aim is always to help our retail clients stand out from the competition with products that are aesthetically pleasing, so we decided we needed to review a number of the antennas in our portfolio. While we do our best to make them as elegant as possible, some of the older ones did not look good when the alarms were sounding – as soon as the security function was triggered, the warning lights were uneven and there were hotspots.” Rubinstein set out to find a material that would enable more homogeneous light on the columns and fortunately discovered PLEXIGLAS® molding compounds.

Convincing light scattering

“I quickly realized that PLEXIGLAS® molding compounds offer precisely the properties we need,” comments Rubinstein, who was working on an innovative electronic article surveillance (EAS) system for food retailing at the time. Instead of bulky, conspicuous gates, the new design consists of just one elegant column. An LED light is integrated at the top, hidden beneath an injection - molded cover made of gray PLEXIGLAS® Softlight molding compound. “This special molding compound has a particularly good scattering effect and prevents hotspots,” explains Neville Green, New Business Development Manager at Röhm. “Therefore, covers for RGB LEDs can achieve a homogeneous light effect even at low component depths.” This was a key factor for Checkpoint Systems, as the compact and sleek design of the new NS40 and Ns42 line required the LEDs to sit very close to the material.

Rubinstein adds: “The LEDs are only a few millimeters away from the material. Other plastics quickly reach their limits here when it comes to their ability to scatter light. The PLEXIGLAS® material can scatter light evenly however close we position the LEDs and, for me, this borders on magic.”

PLEXIGLAS® is versatile and durable

When it is not lit up, the molding compound has a black appearance and elegantly blends

in with the low-key design of the columns. However, when the light source is activated, the columns can light up in any color combination and are only red when the alarm has been triggered by a potential shoplifter passing the antenna.

Another feature that convinced Checkpoint Systems to choose Röhm is the material's high resistance. PMMA has one of the highest surface hardnesses of any thermoplastic and boasts good chemical resistance against, for example, cleaning agents. “Security systems at store exits need to withstand quite a bit of wear and tear,” comments Rubinstein. “Our EAS systems at checkouts need to be robust and last for at least ten years. This not only fits in with customers' increasing efforts to ensure sustainability, but also matches Checkpoint Systems' corporate philosophy. We are working towards a genuine circular economy and, to this end, nearly all of the plastics we use are recyclable.”

This is also the case for PLEXIGLAS®: Röhm's durable PMMA molding compounds are “sustainable by design” and are 100% recyclable. This combination of properties is one of the key deciding factors for Checkpoint Systems in partnering with Röhm. As a result, Rubinstein believes it is highly likely that the collaboration will continue for future projects, too. “We have lots of possible areas of application for PLEXIGLAS® products, and we will certainly be taking a closer look at ways to work together going forward,” he concludes.

Eco - Products Earns Industry First for Compostable Packaging with No - Added PFAS

Eco-Products' announced that one of its Vanguard® clamshells has earned CMA-W approval from the Compost Manufacturing Alliance (CMA), making it the first molded fiber item made with no-added PFAS to be approved by CMA.

Vanguard is a groundbreaking line of compostable plates and containers made from molded fiber. The award-winning products use a proprietary chemistry to achieve grease resistance without the addition of PFAS, part of a class of materials sometimes referred to as "forever chemicals.”

A Vanguard clamshell has earned CMA-W approval from the Compost Manufacturing Alliance (CMA), making it the first molded fiber item made with no-added PFAS to be approved by CMA. Manufactured by Eco - Products, Vanguard is a groundbreaking line of compostable plates and containers made from molded fiber. The award-winning products use a proprietary chemistry to achieve grease resistance without the addition of PFAS. To learn more about the Vanguard line, visit www.ecoproducts.com/Vanguard.

Eco-Products, a Novolex brand and certified B Corp, is a leading provider of foodservice packaging made from renewable and recycled resources. Eco-Products offers packaging with real environmental benefits, works with customers to improve composting and recycling, and collaborates with the broader industry to shift how businesses and consumers think about and manage waste. With the goal of Zero Waste, Eco - Products is using business as a force for good. Visit www.ecoproducts.com to learn more.

"Eco-Products is proud to be an industry leader in offering the very best, most innovative products made from renewable and recycled materials," said Ian Jacobson, President of Eco - Products. "CMA's approval of this item continues to distinguish Vanguard as the premier option in the no-added PFAS product category.”

CMA provides field disintegration testing through several prominent processing methods to ensure products sent to industrial compost facilities adequately break down within the production cycle. In an ongoing project testing different molded fiber products, the Vanguard 9-inch, three - compartment clamshell met the requirements for CMA's windrow technology approval (CMA-W). Additional Vanguard items are in the testing process now with results expected later this year.

"Eco Products' certification provides the CMA network of windrow processors with products that not only meet lab and field disintegration standards, but also fill a critical void in the supply chain for PFAS-compliant fiber materials," said Janet L. Thoman, Compliance Director for the Compost Manufacturing Alliance. "We applaud Eco - Products' diligent efforts to create products that work for consumers and composters."

Made from reclaimed and renewable molded fiber, the Vanguard line includes, plates, bowls, trays, containers and portion cups. They are microwave-friendly, cut - resistant and work for take - out and delivery.

Vanguard has received a number of important distinctions and approvals. In January 2020, the Biodegradable Products Institute (BPI) instituted new rules requiring all BPI-Certified items to be under 100 parts per million of total organic fluorine, and free of intentionally added PFAS. Vanguard was the first line of molded fiber products in the industry to achieve BPI Certification under these new rules.

That earned Vanguard the first-place award for Innovation in Manufacturing in the bi-annual Foodservice Packaging awards competition. In 2021, Vanguard achieved GreenScreen™ Silver designation, making Eco-Products the first manufacturer to earn the GreenScreen designation for a foodservice packaging line.

Since then, Eco-Products has expanded the Vanguard line to feature over 40 unique shapes and sizes of products — making it easily the most comprehensive assortment of no-added PFAS molded fiber products available anywhere.

Eco-Products offers a wide range of plates, cups, utensils, straws, trays and containers made from renewable and post - consumer recycled resources.

BMPT Working with Elix Polymers in Automotive Collaboration

Beijing Beiqi Mould & Plastic Technology Co. (BMPT), a supplier of automotive exterior parts for premium OEMs, has selected ELIX Polymers ABS H801 for the spoilers of the new Mercedes-Benz model GLA and GLB series. This is based on an intensive collaboration between BMPT, Mercedes-Benz, Sinochem and ELIX Polymers.

The company claims ELIX ABS H801, an ABS grade modified with polycarbonate (PC), has a number of advantages that make this material suited for the manufacture of spoilers. These advantages include high stiffness, heat and impact resistance, as well as 'paintability'. The density of this material is 4% lower than the previously used PC/ABS grades for this application, which means important weight reductions can be achieved.

According to BMPT, both the tensile modulus (2400 MPa) and flexural modulus (2300 MPa) of ELIX ABS H801 are higher than many PC/ABS grades with a greater PC content. Its impact resistance, with a Charpy notched impact strength at 23°C of 30 kJ/m2, is in the highest range of an ABS grade. BPMT also claims that high stiffness and impact are combined with a very good thermal resistance (Vicat B50 of 105°C).

According to the company, by using glue joints to assemble the parts, further cost savings are achieved, as there is no need to purchase sophisticated and expensive vibration welding machines or equipment. In addition to this, at the vehicle's end of life, the entire spoiler part can be treated as one single piece of PC/ABS, without the need to selectively separate the parts.

ELIX ABS H801 is approved for global Automotive OEMs and has been used in several exterior and interior applications. In 2022 ELIX also developed what the company claims is a more sustainable version called ELIX E-LOOP H801 MR, containing mechanically recycled feedstocks to help reduce the environmental footprint.

ELIX Polymers, a member of Sinochem International, is a manufacturer of ABS (Acrylonitrile -Butadiene-Styrene) resins and derivatives in Europe. Operating from its head office in Tarragona, Spain, and with sales support teams in all key markets, the company is a provider of tailor-made solutions for thermoplastics applications.

Total Energies and COLINES Collaborate to Develop 'Stand - Up Pouch'

Total Energies and COLINES has announced the proof of concept of an unlaminated recyclable stand-up pouch suitable for food-contact applications.

The collaboration has developed a full PE recyclable Unlaminated Stand-Up Pouch, the company's claim this allows for a decrease in packaging thickness. The Machine Direction Orientation (MDO) film has been produced on the COLINES cast line, Polycast as well as the MDO line, allowing for an asymmetrical structure (low density sealing layer on one side, high density stiff layer on the other side). The MDO - PE film formulation is composed of Total Energies Supertough and unique Lumicene high density PE, according to the company's this allows for a range of solutions, fitting customer's needs.

The film has been printed by Cirepa, a printing company for flexible packaging, and then transformed into a Stand - Up Pouch by Dry - Top, a packaging company.

This project, as well as other Stand - Up Pouch projects that Total Energies is working on, will be detailed during the upcoming AMI Plastic Pouch seminar that will take place in Barcelona, from the 20th of March.

Olivier Greiner, Vice President, Polymers Europe & Orient at Total Energies said; "This collaboration is in line with the recent developments to provide packaging solutions that are fully mechanically recyclable, with the end goal to bring more qualitative feedstock on the market. This latter could be used as feedstock for the recycling industry and eventually end up as RE:use polymers, part of the RE:clic range supporting our ambition of producing 30% circular polymers by 2030. This development was made possible by our broad Lumicene® and Supertough® product range bringing outstanding process ability as well as excellent mechanical and optical properties."

20 Micron Nano Minerals Offer BASOFIX - P - Performance Additive for Automative and Other Technically Demanding Applications

Basofix by 20 Microns is synthetic barium sulphate. Imparts high gloss, excellent smoothness and extensive coverage. Its snow white color offers excellent shade and brightness to the end product. Ultra fine barium sulphate particles of Basofix act as a spacer for prime pigments and hence contribute to the hiding. Used in paper coatings and powder coatings.

"Basofix" for Whiter Shades is an inspiring innovation from 20 MICRONS with an ultra - fine average particle size of 0.7 microns specially developed for paint, powder coating and pigments manufacturing application. Special production methods and various inorganic treatments now permit customized solutions for the most diverse range of problems/applications. Basofix minimizes the noise level is acoustic pipes due to its higher specific gravity and provides excellent sound dampening. Basofix Micro performs brilliantly in automotive and powder coatings with its ideal optical characteristics and also providing protection by being mechanically and chemically stable.

Eco - friendly Chotu Pack:

With brand owners continuously looking at reducing environmental impact caused by nonrecyclable packaging, UFlex launched a fully recyclable spout pouch using BOPP (Biaxially Oriented Polypropylene) / PE films for Kissan Chotu Pack. The new packaging solution developed by UFlex provides more homogeneity and ease of recycling in the value chain for the Chotu Pack.

PLASTIC RAW MATERIALS

Glass - Filled, Halogen - Free FR PP for E&E, Automotive and More

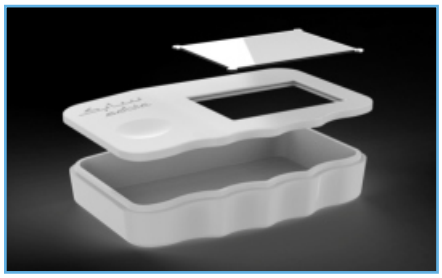
Teknor's Crealen offers excellent flammability ratings and superior glow wire ignition performance while maintaining properties after exposure to moisture and acid.

A new series of glass - filled, halogen-free flame-retardant PP compounds designed to meet the demand for higher voltages and smaller, lighter components in the E&E, automotive, appliance and energy storage markets has been introduced by Teknor Apex. The Crealen HFFR PP compounds are said to offer excellent flammability ratings and superior glow wire ignition performance. Utilizing an innovative halogen free flame - retardant technology, these grades deliver UL 94V0 performance at 1.5mm and achieve UL 5VA at 3.0mm, while maintaining excellent mechanicals properties after exposure to moisture and acid. This unique balance of properties reportedly makes them well suited for a wide range of demanding applications, including thin-wall housings, connectors, brackets, and shields in eMobility, power tools, outdoor power equipment appliances, and electronics.

According to Teknor, Crealen HFFR PP compounds offer a wide range of benefits, such as inherent resistance to moisture absorption, excellent adhesion to TPEs and TPVs in 2 - K molding, and significantly lower density, in contrast to more commonly used glass - filled flame - retardant compounds based on nylon 6 or PBT. Due to these unique performance characteristics, they are an excellent choice for applications that require resistance to acid exposure or for use in high-humidity environments. “Specialty Crealen HFFR PP compounds offer enhanced performance and unique characteristics, that enable electrical system engineers to successfully replace typical engineering plastics, by unlocking design potential and enabling systems cost savings. We plan to expand this product series with further innovation and launch products suitable for extrusion processing for manufacturing of wire & cable products, conduits, tubing, and sheet applications,” said Teknor's v.p. for engineering plastics Pratik Shah.

PC Copolymers for Chemically - Resistant, Thin - Wall Medical Devices

SABIC's LNP Elcres CRX1314W and its biobased equivalent Elcrin CRX1314BTW boast distinct combination of properties for clear covers, screens and display lenses.



Two new PC copolymer resins for medical devices are said to offer a distinct combination of robust chemical and impact resistance, thin - wall transparency, dimensional stability and processability. Recently introduced by SABIC, they are offered as LNP Elcres CRX1314TW copolymer and its biobased equivalent, LNP Elcrin CRX1314BTW copolymer, which reportedly offers up to a 42% reduction in carbon footprint based on life cycle assessment (LCA).

In device applications such as clear covers, screens and display lenses, the CRX PC copolymer resins are said to overcome key drawbacks of incumbent PC resins

and co - polyester resins when exposed to disinfectants or aggressive chemicals. Both grades feature limited biocompatibility according to ISO 109931 and coverage under SABIC's healthcare product policy, which provides stringent management of change processes. Since SABIC's first LNP Elecres CRX PC copolymer resins (which are opaque and custom colorable) were introduced at MD&M West 2020, the continued market need for chemically-resistant materials has driven the development of these innovative thin - wall transparent materials.

Like all LNP CRX materials, the new grades feature exceptional resistance to harsh disinfecting chemicals, such as quaternary ammonium compounds, alcohols and peroxides, which can lead to the environmental stress cracking (ESC) of medical device displays and covers. Furthermore, these materials offer transparency equivalent to that of PC resins at thin-wall geometries of 0.8 mm to 1.0 mm, and offer translucency at higher thicknesses. They also deliver high impact resistance across a wide temperature range (down to - 40°C), excellent dimensional stability and good processability. Both grades meet the UL94 HB standard for horizontal burning. Moreover, to meet the healthcare industry's growing need for high-precision, vibration-free assembly technology, these new copolymer resins provide near - infrared (IR) transmission optical properties that are required for laser welding and are said to enable leakproof, low - stress welds without the need for adhesives.

Covestro PC Chosen by Dermadry for Treatment Trays of Medical Device

Makrolon 2458 PC makes up key components of the latest device for treating hyperhidrosis.

A polycarbonate from Covestro was chosen by Dermadry Laboratories, a leading manufacturer of iontophoresis machines for at-home treatment of excessive sweating. Hyperhidrosis, characterized by excessive sweating, affects approximately one in 20 people worldwide. Dermadry selected Makrolon 2458 PC from Covestro to form an important component of its latest Dermadry Tap Water Iontophoresis (TWI) device.

Dermadry offers three tailored TWI solutions to treat the areas most commonly affected by hyperhidrosis: the hands, feet, and underarms. Through extensive research, Dermadry found existing treatment devices were complicated to use, took up a lot of space, and looked too technical. With its latest iteration, Dermadry set out to design a user - friendly, ergonomic and aesthetically appealing device. The all - in - one Dermadry Total machine addresses these while halting sweat production by using the passage of mild electrical current through tap water to disrupt the signal between the nerves and sweat glands. The device's treatment trays that utilize Covestro PC are designed to make iontophoresis treatment easier and more comfortable for the user, and can also be interlocked, forming a convenient, compact storage case for all device pieces.

The Dermadry team evaluated several different materials for the treatment trays, including ABS and PP, before choosing Makrolon 2458 PC. The team found that this medical PC grade offers the required physical properties, including excellent impact resistance, clarity, quality and biocompatibility —complemented by the strong aesthetics required for this application — a glossy finish and ergonomic design.

Polyplastics' Plastron LFT Cellulose Fiber Reinforced PP Targets Automotive

The material is seen as a suitable candidate for use in door module carriers, center consoles, and armrest cores.

Launched by Polyplastics Group last year, a long cellulose fiber reinforced PP is being targeted at such automotive applications as door module carriers, center consoles, and armrest cores.

Plastron LFT PP reportedly has been shown to offer lower density and reduced greenhouse gas (GHG) emissions than short glass- reinforced resins while delivering the same mechanical properties.

A non - edible biomass raw material derived from organic non - fossil resources, cellulose boasts characteristics such as, negative carbon influence (absorbs carbon dioxide in the air when manufactured) and is sustainable (raw material that can be procured sustainably unlike resources such as natural minerals). Plastron LFT, specifically, incorporates regenerated cellulose fibers made using the solvent method which produces hardly any waste. Polyplastics uses a solvent method cellulose fiber that is said to emit less greenhouse gas when manufactured compared to typical glass fiber. Since it has nearly 10% lower density than glass fiber reinforced PP resin, its greenhouse gas emissions are also even lower when compared in equal volumes.

A significant majority of typical regenerated cellulose is manufactured using a complex process which involves modification of the cellulose followed by dissolving in solvent and spinning and finally restoring the original cellulose form. This process results in significant emissions of greenhouse gases including carbon dioxide. In contrast, the solvent method used by Polyplastics is a closed process that reportedly recovers virtually 100% of the solvent. It generates minimal waste and produces materials that are even more eco-friendly. The company has earned multiple patents throughout the world for resins reinforced with long-regenerated cellulose fiber, including solvent method cellulose fiber.

Dow Introduces New FINGERPRINT™ Grade for the Microirrigation Market

Dow (NYSE: DOW) announced the introduction of FINGERPRINT™ DFDA-7555 NT Bimodal Polyethylene Resin, an evolution of its legacy FINGERPRINT™ Polyethylene Resins. Produced using Unipol™ II process technology, this medium-density bimodal PE resin helps to address the growing need for materials that contribute to reliable, high - performing and sustainable micro irrigation systems that can help increase water productivity, improve crop yields and conserve valuable resources.

FINGERPRINT™ DFDA-7555 NT offers better performance and tougher tape for thin wall micro irrigation tape applications and profile extrusion applications. Additionally, through the ability to down gauge and incorporate post-consumer resins (PCR) in tape formulation, this product offers the opportunity to make a significant sustainability impact. The tape's higher stiffness and longevity in long-term and short-term underground tape applications, as well as physical properties enabling the incorporation of materials with reduced properties such as PCR, will play a large role in developing a more sustainable system.

“We are committed to helping our drip irrigation customers and the growers create strong solutions that will benefit their production, bottom line and sustainability efforts for the long-term,” said Stephanie Giles, Customer and Application Development Manager, Dow.

The FINGERPRINT™ portfolio of products has utility as a premium product line for micro irrigation applications including profile extruded tapes and tubes. This latest FINGERPRINT™ grade offers micro irrigation tape manufacturers who are looking to meet their customers' increasing demands several key benefits, including down gauged wall thicknesses with better draw down characteristics for converters when producing tape with a reliable balance of extrusion ease and toughness. Furthermore, the new grade has high tensile and elongation properties, excellent burst strength and better crack resistance.

Micro irrigation systems are a crucial component of the farming ecosystem that deliver vital water and nutrients where they're needed most – plant root systems. This means that it is critical that the system is built to last year-over - year, even in the most extreme conditions from weather to the everyday hardships of the farm.

A Recyclable Mono - Material PE - Pouch Through Collaboration of Exxonmobil, Henkel, Kraus Folie, Siegwerk and Windmöller & Hölscher

In a breakthrough development, a fully recyclable* mono-material PE pouch has been created that has similar properties to barely recyclable multi - material laminated pouches. The new pouches utilize the latest polymers, inks, functional coatings, adhesives and conversion technology and were the product of a unique value chain collaboration of ExxonMobil, Henkel, Kraus Folie, Siegwerk and Windmöller & Hölscher. The innovation allows for pouches that provide a high oxygen barrier, outstanding package integrity and excellent shelf - appeal, and produces an almost colorless recyclate after the removal of printing ink and the oxygen - barrier coating layer.

Delamination and Deinking:

In order to produce a colorless recyclate, the delamination and removal of the printing ink and coating from the laminate structure is crucial. To this end, Siegwerk's delamination / deinking primer technology was applied on a Windmöller & Hölscher MIRAFLEX", a flexo printing press with a downstream unit.

Depending on the requirements either solvent- (SB) or water-based (WB) primer from Siegwerk's CIRKIT® ClearPrime product range are available. Applying industrial hot-washing conditions enable s delamination and deinking of the pouch, giving an almost colorless recyclate.

High Oxygen Barrier:

Excellent oxygen barrier properties had been achieved through the use of Loctite® Liofol BC 1582 RE, a recently introduced 1 - component barrier coating from Henkel, and CIRKIT® OxyBar BC 1582 from Siegwerk. The coating can be applied on both flexo and gravure presses at industrial machine speeds on various substrates, giving excellent transparency. Its compatibility with recycling has been confirmed by Cyclos HTP and it also meets Critical Guidance by the Association of Plastic Recyclers (APR).To match these requirements, appropriate colored and white inks from Siegwerk were used.

Laminating Adhesive:

To improve recyclability, the partners used Henkel's new solvent - free, 2 - component polyurethane laminating adhesive, LOCTITE® LIOFOL LA 7102 RE / 6902 RE. The system has been designed for mono - material structures and been recognized for its compatibility with recycling as certified by RecyClass.

Package Integrity:

Outstanding packaging integrity is achieved using ExxonMobil's latest generation of performance polyethylene such as ExceedTM S and ExceedTM XP, in combination with ExactTM materials in the sealant layer. The MDO-PE films had been developed by ExxonMobil and Kraus Folie, employing ExxonMobil HDPE and EnableTM performance polyethylene, and produced on their VAREX" extrusion line with inline MDO unit.

Shelf Appeal:

High primer transparency combined with consistent print quality and the inherent gloss of the ExxonMobil PE-based MDO film helps to deliver an excellent shelf appeal of the final pouch. Deinking primer, print image and barrier coating had been applied in one step using a Windmöller & Hölscher MIRAFLEX" with a downstream unit.

*The terms "recyclable" and "recyclability" as used throughout this press release are intended to refer to the potential for recyclability of full PE solutions designed and manufactured in accordance with recycling guidelines such as PRE RecyClass. Ultimate recyclability of full PE packaging will depend on a number of factors outside of the partners' (W&H / ExxonMobil / Henkel / Siegwerk / Kraus) control including, but not limited to, availability of programs and facilities that collect and recycle plastic packaging within a given community. Any and all claims about the recyclability of full PE-packaging are the sole responsibility of the packaging manufacturer.

NOVA Chemicals Commercializes First SYNDIGO™ FDA - Compliant Mechanically Recycled Polyethylene

First NOVA Chemicals mechanically recycled food - contact resin in SYNDIGO portfolio

Low-emission recycled solution allows converters and brand owners to incorporate recycled polyethylene into food packaging

NOVA Chemicals Corporation ("NOVA Chemicals"), a leading supplier of polyethylene (PE) for food packaging, announced that it delivered a commercialized FDA - compliant high - density recycled polyethylene (rPE) resin to market. The new grade is its first mechanically recycled food - contact resin and is part of the Company's recently announced SYNDIGO rPE portfolio.

The resin, SYNDIGO rPE-0860-FC, is a lower - emission option compared to virgin polyethylene and enables converters and brand owners to incorporate rPE into food packaging products. It is sourced from natural high-density polyethylene (HDPE) milk jugs and is ideal for various types of flexible and rigid food packaging.

SYNDIGO rPE-0860-FC resin is an ideal option for converters and brand owners who are transitioning towards more sustainable products and packaging. Three additional resins are commercially available in the SYNDIGO portfolio, which can be used in a variety of non-food contact applications from e-commerce mailers to shrink to industrial films.

Henkel presents latest solutions for sustainable and high efficiency Non - wovens manufacturing at INDEX 2023

Under the motto “Rethink Nonwovens”, Henkel will present breakthrough solutions to enhance the sustainability and efficiency in Nonwovens manufacturing at INDEX 2023, held from April 18 to 21 at Palexpo, Geneva, Switzerland. At stand 2255, Henkel will showcase Technomelt DM ECO, a new sustainability - focused adhesives grade for the Nonwovens market. For high performance, high efficiency bonding applications, Henkel will present its state - of - the - art Easyflow® hot melt adhesive solution, which employs an auto-feed system for safe and efficient delivery to set new standards in process performance. At INDEX, visitors can also learn more about Smart Adult Care, an innovative solution from Henkel Qhesive Solutions that combines Nonwovens with printable electronics to revolutionize adult incontinence management.

“INDEX brings together the global Nonwovens key value chain players to meet, collaborate and discover the latest innovations and best practices. As a leading partner to this dynamic industry, we are excited to presenting solutions that allow our customers to design and manufacture safer, more sustainable, and more cost-effective products and materials,” said Eilyn Meneses Villabona, Senior Market Strategy Manager Personal Hygiene Adhesives EIMEA at Henkel.

Unlocking a new era of sustainability

With Technomelt DM ECO, Henkel is launching a sustainability-focused grade for the first time to the European Nonwovens market. The new range of direct bio-based adhesives for hygiene products construction, enables elastics and positioning applications to be carried out with more than 50% bio-based, non-fossil sources. In this way, Technomelt DM ECO makes more sustainable product designs possible, while helping hygiene manufacturers reduce their CO2 footprint. The adhesives range is compatible with renewable and standard substrates without compromising on process efficiency.

Optimizing Operational Efficiency with Easyflow®

Henkel will also present its Easyflow® hot melt adhesive system at INDEX 2023. This cutting - edge adhesive is based on a new pressure - sensitive, patented product form that enables safe and efficient delivery, and increases production line’s efficiency. Supplied in small, non-sticky micro chubs, the adhesive's unique form melts on demand, and enables the auto-feeding of Technomelt DM adhesives into hot melt tanks to enhance safety and operations while avoiding interruptions to production. The auto - feeding process minimizes the time the adhesive is molten inside the tank, reducing the risk of the build-up of VOCs while also reducing energy consumption by up to 20%. Easyflow®'s closed system integration reduces the risk of adhesives contamination from foreign materials entering the hotmelt tanks.

M. Holland Enters into Partnership to Stabilize Supply, Pricing of PCR Resins

The distributor of thermoplastic resins has partnered with Lavergne, whose portfolio of 100% recycled plastics is not affected by shifting petroleum prices.

M. Holland Co announced a new partnership with Lavergne, a global manufacturer specializing in the formulation of custom compounded engineered resins, to distribute post - consumer recycled (PCR) resins. This partnership will allow M. Holland, an international distributor of thermoplastic resins and ancillary materials, to provide clients with access to Lavergne's certified PCR resins with increased supply chain security and pricing stability, said the news release.

Sustainability is a primary focus for the plastics industry, and the demand for PCR resins has accelerated in recent years, noted Samantha Stone, global sourcing leader for sustainability at M. Holland.

Demand for PCR resins is growing as brand owners and OEMs seek to achieve the aggressive sustainability goals they have set. Demand is especially acute across several durable goods segments, including automotive, consumer electronics, home appliances, and office furniture and supplies.

Lavergne has 35 years of experience in the plastics industry with an emphasis on designing, developing, and manufacturing high - value sustainable resins using 100% PCR plastics. It has manufacturing sites in Montreal, Belgium, Vietnam, and Haiti, providing supply chain security, high-quality certified materials, and stable pricing for M. Holland's custom

SABIC Announces Catalysts Production Project in Saudi Arabia

SABIC participated in a ceremony held in Riyadh under the patronage of HRH Prince Mohammed bin Salman bin Abdulaziz, Crown Prince and Prime Minister, to announce the first package of Shareek projects involving large companies in Saudi Arabia.

Shareek was launched in March 2021 by the Crown Prince to enhance partnership with the private sector, develop partnership between the public and private sectors, and support sustainable growth to build the national economy.

Khalid Al - Dabbagh, SABIC Chairman, and Abdulrahman Al-Fageeh, SABIC CEO (A), attended the event when the company signed a framework agreement with Shareek.

During the ceremony, SABIC announced a strategic project to manufacture catalysts with the aim of transforming Saudi Arabia into a manufacturing hub for specialized materials in line with the national industrial strategy. The project will contribute to industrial advancements as envisioned in Saudi Vision 2030, including improving competitiveness of the energy sector, developing industries associated with the oil-and-gas industries, and raising the level of local content in this area.

CAI Performance Additives introduces anti - hydrolysis polymer additives

CAI Performance Additives announced new anti - hydrolysis polymer additives, ST-HT10 and ST - HT 13.

CAI Performance Additives announces the launch of anti-hydrolysis polymer additives, ST-HT10 and ST - HT13.

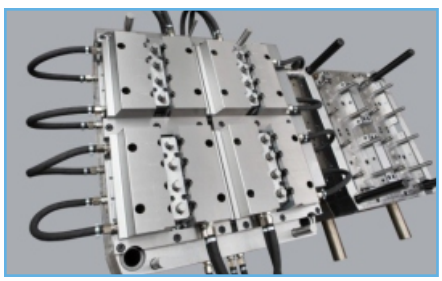
In a wide range of contexts such as medicine, automotive and industrial, the products have a high possibility of exposure to moisture. Thus, resistance is essential for long-term durability. To set our customers up for success, we launched additives for superior resistance to hydrolytic damage.

Offers Superior Protection from Degradation

ST-HT10 is a higher - performing polymeric version, and ST-HT13 is a monomeric version based on the same chemistry. ST-HT10, for example, shows superior protection from degradation over a 60 - day period in polyamides.

PLASTIC MACHINERY

Faulkner Moulds 'UK-First' Technology for Multi - Cavity High Production Toolmaking



Award - winning UK Toolmakers, Faulkner Moulds has again installed trail blazing technology at their Yorkshire-based toolroom.

Their innovative robotic production cell is a 'UK-first', further enhancing the quality and efficiency of their mould tool manufacture. The production cell particularly supports multi - cavity, high - production tooling.

The pioneering manufacturing cell will feed both the Mikron 5-Axis and Sodick spark erosion machines, enabling automated changes of electrodes and of workpieces, further increasing capacity for high cavity tooling, of which Faulkner Moulds has sound experience.

For example, the tool pictured has 16 impressions, is guaranteed for a million shots and moulds at an efficient 7 second cycle time. Faulkner Moulds recently reduced the cycle time on a new 12 impression packaging tool for a household name, from a target of 8.5 seconds to just 6.98 seconds.

Faulkner Moulds' Managing Director, Duncan Faulkner says, “Our success lies in focussing on 3 things – customer service, skills and training, and technology. We never stay still – we are constantly innovating and finding ways to move forward for our customers”.

This year, the three - times UK 'Toolmaker of the Year' winner has also taken delivery of a new Hurco TM8i 2 axis CNC turning centre (lathe) and Mitutoyo Crysta-Apex S CNC Co-ordinate Measuring machine.

The CMM machine responds to increased demand for ever tighter tolerances in toolmaking, allowing highly accurate 3D measurements at high speed. Dedicated software algorithms guarantee high accuracy by eliminating even minuscule geometrical imperfections in the guideways.

The versatile turning centre has in - built features to ease programming, enhance machine speed and ensure outstanding accuracy and surface finish. It is ideally suited to the fast-paced demands of modern toolmaking. Faulkner Moulds' recent experience in high precision turning includes projects for the medical, packaging and industrial sectors.

Other recent investments include a new wire erosion machine and a new CNC sparker that runs to a guaranteed 3 microns accuracy all day.

The three newest machines are already in daily use, helping Faulkner Moulds respond to increased demand for high precision multi-cavity toolmaking and extreme measurement accuracy.

Windmöller & Hölscher and Theurer. Com Work Hand in Hand

Windmöller & Hölscher (W&H) and the leading provider of ERP/MIS software for the printing and packaging industry theurer . com will go common ways concerning the W&H product RUBY. RUBY is the IoT system for optimizing packaging production with regard to the digitalization of the value chain. By intelligently improving parameters, higher productivity

and better quality are achieved. Thanks to data based error detection and alarms in real time, packaging production also becomes more efficient.

The focus of the cooperation is based on a plug and play concept for the new connectivity module RUBY Connect 4 Flow, which digitizes the manual order process at the machine. This enables W&H machines, initially limited to the business units of printing and extrusion, to be networked via RUBY with the C3 ERP/MIS software from theurer.com. The aim is to create a standardized solution for the digital transfer from C3 to the W&H systems and from the W&H systems back to C3. In this way, the transfer of order data and machine settings, as well as production feedback, take place digitally. It allows experts to prepare the job with all relevant machine parameter settings like temperatures, tensions etc. conveniently from the office and to send all this data digitally to the subsequent job level of the different machines. All that remains is to select the next job from the list and all machine parameter settings are already done at the push of a button.

The cooperation brings great added value for W&H customers: There is less integration effort during installation, the degree of automation can be directly increased and human error settings can be reduced. "We are pleased to create new benefits for our customers. Thanks to the cooperation, RUBY will be networked even more efficiently. This does not only save time and prevents errors but also ensures maximum transparency as well as production control," reports Stefan Brinkmeier, Product Manager for Connect 4 Flow at W&H. The concept was already presented in October 2022 at EXPO, W&H's in-house exhibition, and met with great interest from customers. Currently, the interface and data architectures are being coordinated and programmed.

theurer.com offers its customers many advantages with C3 as the leading software for the printing and packaging industry: From digital production orders via MDC/DMI to the transmission of orders to machines and now the connection to RUBY. Nevertheless, RUBY remains an open system that can be networked with other ERP systems than C3.

New, Single - Rotor GP Series Shredders from Conair Package Power and Durability in a Small Footprint

Conair Group has introduced compact and affordable GP Series shredders for plastics processors who need to reduce hard scrap that is too large for a granulator, but who don't need the high throughput or cost of a larger shredding machine.

The new GP Series is comprised of two models, with the GP 924 featuring a 24 - inch cutting chamber and the larger GP 935 equipped with a 35 - inch chamber. Within each chamber, scrap is reduced by a single 8.7-inch (220 mm) diameter steel rotor that cuts against a fixed blade knife, both of which are drop - forged from 4140 high - alloy steel for maximum durability. Rotors are equipped with four-sided, indexable cutting knives (23 or 35, depending on the model) that can be unbolted and rotated to provide fresh cutting edges between sharpenings. The fixed - blade knife, or anvil, also offers dual cutting edges, so it can be unbolted and flipped 180 degrees to provide extended service before sharpening is required. Reduced scrap flows through a filter screen into a hopper area at the bottom of the machine.

Power to the single-shaft rotor is provided by a high-efficiency 25 hp or 40 hp AC motors, coupled through a large belt drive to an oversized, heavy - duty gearbox. These drivetrains, housed in the base of the shredder, produce high cutting torque at relatively low rotor RPM to reduce even thick scrap with limited noise.

Standard GP Series shredders offer a large, open - top infeed hopper, capable of accepting gaylord-sized batch feeds. At the bottom of the hopper, a horizontal, hydraulic ram drives scrap into the cutting chamber. The ram feed is configured for low maintenance, with top and side scrapers that clean and shield the ram face, preventing shredded material from entering and interfering with the ram mechanism.

Ram direction and speed, as well as overall shredder operation, are controlled through programmable logic controller, accessed through a color touchscreen HMI and a master power switch. The HMI offers access to a series of configurable shredding programs as well as onboard alarms that alert operators to changing operational conditions. The GP Series shredders also include complete electromechanical

safeties that disable shredder operation during maintenance access until all equipment access points are properly closed and secured.

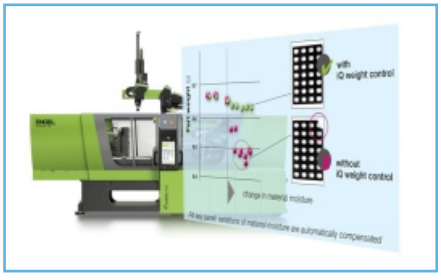
For processors with unique size-reduction requirements, Miller says that GP Series shredders offer a wide variety of configuration and equipment options. “We offer everything from special hoppers, infeed conveyors, and blowers to all of the ancillary equipment needed to build and operate a turnkey shredding system linked to a secondary granulator.”

The Conair Group () offers innovative auxiliary equipment solutions to plastics processors around the world. With 32 degreed engineers, including 16 senior team members with an average of over 23 years of experience, Conair brings unparalleled technical expertise and support to its customers, guaranteeing its products will deliver maximum productive uptime. Twenty parts and service team members respond to tens of thousands of calls each year, answering in an average of about 15 seconds. Over 450 individual products include resin drying systems, blenders, feeders and material - conveying systems, temperature - control equipment, and granulators. Extrusion solutions include line - control systems, film, and sheet scrap-reclaim systems, and downstream equipment for pipe and profile extrusion. Conair also has specialized expertise in every major end market – such as packaging, medical, transportation, building and construction, and many others – and strives to ensure plastics processors succeed in today's competitive global marketplace.

New GP Series general-purpose shredders from Conair are designed for small to medium throughputs of even the hardest scrap. They blend compact design with durable performance and low - maintenance features, including indexable fixed - blade and rotor-mounted cutting knives for long life between sharpenings.

Machine Intelligence Mobilized Against Waste

Part quality was naturally the first target of autonomous molding algorithms, but later developments have focused increasingly on preventing wasted time, energy, material and hardware maintenance.



In Plastics Technology webinar presented by Lukas Neunzig, plastics application engineer at Engel in York, Pa., he titled his talk, "2023: The Year Machines Will Take Over Molding." That immediately intrigued 257 participants , who registered for the webinar. Flashbacks of the "Terminator" movie series – "The Rise of the Machines" – echoed in everybody's mind. His webinar title also evoked the mix of excitement and anxiety stimulated in recent weeks by public chatter about artificial intelligence (AI) "chatbots" that mimic human ability to carry out conversations or answer internet search requests in textual form.

The actual subject of the Engel webinar was the company's suite of iQ software apps for controlling various elements of the injection molding progress. As such self-regulating programs for injection machine control have proliferated, the arrival of "Autonomous Molding" (a phrase used by iMFLUX) has seemed more and more imminent.

The first iterations, like Engel's iQ weight control, were quite naturally aimed at maximizing part quality by ensuring consistent part weight. Subsequent developments – like Engel's iQ melt control, clamp control, hold control and flow control – tackled specific elements of the process to cut down on wasted cycle time, energy, material (through overpacking), and maintenance costs of excessive wear and tear on machines and molds.

How do they do that? By extending screw-recovery time to utilize all the available cooling time, reducing wear and tear on injection units and overheating of the melt through shear. By reducing the clamp tonnage to just the amount necessary for a particular mold, saving energy and mold wear. By optimizing pack - and - hold time to neither undershoot nor overshoot gate-freeze time, preserving quality and saving energy. By regulating pump speed of a mold temperature-control unit (TCU) to provide just the flow required for

adequate cooling – a really big energy saver, according to Engel. Even the quality-assurance aspect of iQ weight control (and similar programs from other suppliers) can be seen as really preventing waste – i.e., rejects and all the material, energy, labor and other inputs that go into any molding cycle that does not produce saleable product.

In the same vein, a Keeping Up With Technology news item to appear in our April issue (and available online now) reports on a new control option from Netstal that saves energy and wear and tear by minimizing system hydraulic pressure in the injection press to just the level required by the particular application.

So, from that angle, all that machine intelligence can be viewed as directed primarily at waste avoidance – hardly a diabolical plot by The Machines to "take over molding" in the sense of taking it away from human control. Rather, it shows awareness by the human experts who designed the software of the common human fallibility – call it ignorance, laziness, or insecurity, if you will – that leads too many setup technicians to program the maximum screw-recovery speed, maximum clamp pressure, etc. as standard practice. All that waste. Today's profit margins won't support it. Somebody, or something, had to provide an alternative.

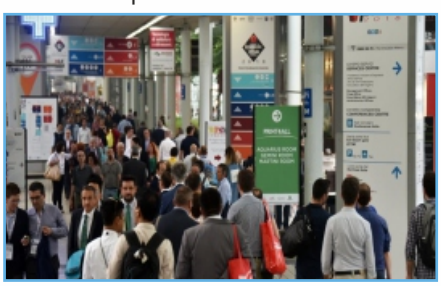
Single View of Bin & Silo Material Levels in Multiple Locations

Got a bin in Buffalo and a silo in San José? BinMaster's latest addition to its cloud inventory software lets you see all your resin inventory anywhere in one view.

New from BinMaster is the Siteview app, which shows all your bin and silo material levels in multiple locations – in one bulk inventory report. This is a new addition to the company's BinCloud software, which already allows remote multi-site monitoring with one login. The BinCloud radar - sensor cloud inventory system has various apps customized for different industries; ResinView is for plastics processors and recyclers.

PLAST 2023 Looks to Target The Resurgence in The Italian Plastics Industry

PLAST, an International Exhibition for the Plastics and Rubber Industry is an industry event that runs from Tuesday to Friday, 5–8 September 2023 at the Fiera Milano fairgrounds in Rho-Pero, Italy. Currently, there are more than 700 exhibitors already registered for the event, with over 36,000 square metres reserved for those within the plastic industry that wish to display their business and new products.



Untitled design - 1

According to organisers, the 2023 edition of the event is already shaping up to be successful, with the added features of the three satellite fairs, each dedicated to an area of 'excellence' in the sector, these include: RUBBER, 3D PLAST and PLAST-MAT.

The exhibition aims to have the plastics industry at its heart with machinery, auxiliary equipment, plastics and rubber moulds all featuring heavily, with over 400 companies in attendance.

The Outlook for the Italian plastics industry

Amaplast's - MECS Statistical Studies Centre sees the plastics industry in Italy and across Europe as an industry that is on the rise following the pandemic, from 2021-22 with production reaching the threshold of 4.5 billion and the industry growing one percentage point on the markets

Growth, although tempered, is recorded in both components of demand: exports increased by 2%, while imports increased by 5%

As regards exports by region, according to ISTAT data for the first nine months of 2022, exports have increased to Asian markets (led by India), the Americas (South America in particular, Colombia out ahead), and Europe. On the other hand, flows to Africa have diminished, both to Mediterranean and Sub-Saharan markets.

In the European market – which overall absorbs almost 60% of the total – sales performance is good in several key markets such as Germany, the major trade partner for Italian machinery manufacturers.

On the other hand, supplies to French converters have decreased by 16% and those the United Kingdom by 5%, probably due to repercussions of Brexit.

CIRCULAR ECONOMY/ BIO-PLASTICS/ RECYCLING

How Japan is Using The Circular Economy to Recycle Plastics

Strong tradition of recycling and resource conservation rooted in ancient cultural beliefs and practices, and supported by government policies today, are supporting the transition to a circular plastics economy in Japan, write Naoki Tamaki and Naoki Wada.

Town residents sort their household waste at Kamikatsu waste recycling facility

In Japan, it is common for individuals to wash their plastic products to remove any food residue before recycling them. For example, after consuming a beverage, the plastic bottle is usually separated into three parts – the cap, the film and the body – before recycling. Indeed, recycling plastic products in Japan is supported by the country's strong long - standing emphasis on resource conservation.

Limited natural resources required for the industrial sector has been a persistent issue in Japan for many years. Despite Japan's industrialization over 150 years ago, natural resources –such as energy and minerals – are still essential for the industrial sector yet, due to scarcity, Japan has relied on imports for nearly 90 per cent of its energy and almost all of its mineral needs.

But, despite these limitations, Japan has managed to achieve high economic growth through processing trade, becoming the world's second - largest GDP country between 1968 and 2010 while currently being ranked third. This was achieved not only through improvements in product technology but also by making manufacturing processes more efficient and by conserving the natural resources that the country has. Indeed, the promotion of recycling has been a top priority for the country's economic security. **Naoki Tamaki** is a Visiting Fellow in the Environment and Society Programme at Chatham House. He specializes in research on the use of ancient wisdoms to realise circular economy.

Naoki Wada is a former Visiting Fellow in the Institute of Development Studies and currently Director in Kanto Regional Environment Office at the Ministry of the Environment Japan. He specializes in environmental policy on circular economy.

Waste management in Japan

The legal framework for a circular society in Japan was formed in 2000 by the Law for Establishing a Recycling-Oriented Society which established the principle of a waste hierarchy.

The national policy framework in Japan has undergone significant changes in recent decades. The rapid economic growth of the 1960s and 1980s resulted in a massive generation of waste that put tremendous pressure on the capacity of disposal sites, particularly in light of Japan's mountainous landscape, making it challenging for local authorities to establish new sites for disposal. The number of illegal dumping cases also increased, indicating that administration of waste management, which simply disposed of what was generated, had reached its limits. But, in the 1990s, the country shifted its focus from waste treatment to emissions reduction and recycling.

In fact, to address this issue, the Waste Management and Public Cleansing Law was revised in 1991 to add waste emissions reduction and recycling to its legal objectives. Meanwhile, in 2000, the legal framework for a circular society was formed by the Law for Establishing a Recycling - Oriented Society which established the principle of a waste hierarchy. Furthermore, in 2001 the Law for the Promotion of Effective Utilization of Resources required businesses to consider recyclability at the design and manufacturing stages as well as also use recycled materials. In addition, practical measures were taken through six product - based recycling laws including those related to packaging, automotives, construction, food and electronic and electrical equipment, based on the extended producer responsibility.

Regarding plastic recycling, in particular, Table 1 shows a comparison of recycling rates in Europe (EU27+3), Japan and the United States. Europe has a recycling rate of 34.6 per cent of collected waste plastics while there is a gap between domestic plastics demand and collected post - consumer plastic waste which is the waste that is collected after being used by the consumers such as single - use food containers, plastic cups, bottles, and other things. According to Plastics Europe, 'The conclusions are currently speculative due to inadequate data,' but it is pointed out that 8-15Mt of the gap is potentially generated as waste which could make the actual recycling rate between 22 to 27 per cent. In Japan, the recycling rates for plastic were 23.8 per cent and 24.4 per cent compared to plastic demand and collected post - consumer plastic waste respectively. (For reference, the recycling rate, including thermal recycling – which is the use of combustible packaging waste for the production of energy through direct incineration with or without other types of waste with recovery of the heat – is 85 per cent.)

Table 1: Comparison of plastics demand, collected post-consumer plastic waste and recycling among EU, US and Japan

	Plastics demand Mt (a)	Collected post-consumer plastic waste Mt (b)	Recycling Mt (c) (c/a, c/b)
EU 27+3	49.1	29.5	10.2 (20.1%, 34.6%)
Japan	8.4	8.2	2.0 (23.8%, 24.4%)
US	37	35.7	3.1 (8.4%, 8.7%)

Data sources:

EU 27+3: Plastics Europe (2021): Plastics - the Facts 2021

Japan: Plastic Waste Management Institute (2021): The Status of Plastic Production, disposal, recycling, treatment and disposal

US: EPA (2022): Plastics: Material - Specific Data, McKinsey & Company (2019): Accelerating plastic recovery in the United States

Towards A Circular Plastics Economy

Last year, in April 2022, the Act on the Promotion of Resource Circulation for Plastics was enacted in Japan to further improve the circulation of plastics. This material-focused regulation aims to promote the circulation of plastic in the entire range of products. The legal system intends to cover the cradle - to - cradle supply chain by implementing measures at three main stages: the design stage, the retail and service stage and the disposal stage.

At the design stage, the new legal system determines the guidelines for the Design for the Environment (DfE) and promotes their widespread use in products by establishing a governmental certification system. Government procurement is also expected to contribute to this purpose.

At the retail and service stage, retailers and service providers, such as hotels and restaurants, are required to take action to reduce the use of plastics following the newly developed guideline. The aim is to reduce the use of single - use plastic products through several measures including stopping the distribution of single-use plastic products, using alternative material products and improving communication with customers to discourage their usage.

At the disposal stage, three mechanisms are designed to cover all plastic products for collection and recycling. For municipal waste, local authorities are required to make efforts to collect and recycle all plastic products while the government has adjusted the regulation on package recycling to enable efficient and integrated recycling of plastics.

For business sectors, two certification systems have been developed for businesses that collect and recycle their products sold to consumers as well as their own industrial waste. These systems grant them legal

exceptions on regulations, including waste collection, to encourage efficient recycling. It is also expected to contribute to business sectors accelerating their collaboration across both horizontal and vertical supply chain partners which is generally said to be the key to achieving a circular economy. Comparing waste sorting systems in Japan and Europe 80per cent of local authorities in Japan separate rubbish into more than 10 types at the collection stations.

Regarding waste sorting systems in Japan and Europe, a wide range of rubbish is generated from households. In around 80 per cent of local authorities in Japan, rubbish is separated into more than 10 types in the rubbish collection stations. Each type has a different collection day in a week. The maximum number of rubbish types for separate collection in Japan is 34 and detailed rules for separate collection exist – such as papers and cardboard to be tied up with rope, broken glass or ceramics to be wrapped with papers to prevent worker injury and waste to be put in the station only on the morning of the collection day to avoid scattering on the street by animals and prevent smells from spreading to the surrounding households. Some municipalities even collect and recycle diapers and the guidelines for the Recycling of Used Paper Diapers developed by the Japanese Ministry of the Environment in 2020 is considered the world's first guidelines for diaper recycling.

Regarding plastic containers and packaging in Japan, all containers and packaging in which plastics consist of the largest portion are subject to collection. In the UK, most rigid plastics are subject to collection while other rigid plastic packaging and most flexible packaging are not. The challenges of flexible plastic packages are the high contamination of food and the variety of polymer types. In the recycling process, which consists of more than half of packaging recycling in Japan, collected plastics are usually sorted roughly by hand, mechanically sorted into different polymer types, shredded, cleaned, melted and granulated. During this process, plastics contaminated with food or non-recyclable materials, such as multi - layered or mixed with paper, are removed and directed to energy recovery.

To increase the recycling rate and reduce the ratio of energy recovery, reducing the number of polymer types are included in the DfE guideline and, of course, small efforts by consumers can play a significant role in increasing the recycling rate of plastics and reducing recycling costs.

Japan's resource - conserving practices are not limited to just recycling though. For example, the concept of mottainai also extends to the efficient use of water. This has become increasingly important due to Japan's limited natural resources and aging infrastructure.

In recent years, the government has implemented various measures to promote resource conservation including the development of eco - friendly technologies and of energy - saving regulations. The role of government policies and regulations in promoting recycling and resource conservation in Japan has been crucial. For example, the country has strict waste separation and recycling laws and local municipalities are responsible for ensuring that households and businesses comply with these regulations. The government also offers subsidies and incentives to companies that engage in resource - conserving practices such as using renewable energy and implementing sustainable production methods.

Despite this, Japan's recycling and resource conservation practices have not been without challenges. In recent years, the country has faced a growing problem of plastic and other waste leading to calls for more sustainable packaging. Additionally, Japan's aging population and shrinking workforce have made it increasingly difficult to maintain the traditional system of waste collection and sorting thereby highlighting the need for innovative solutions and new technologies.

Yet, the strong tradition of recycling and resource conservation in Japan, with roots in ancient cultural beliefs and practices and supported today by government policies and regulations, is pointing the way towards how a circular plastics economy can help address contemporary environmental challenges.

Recycling and Raising Awareness with EREMA Recycling Solutions

CSR Plastic is a young, aspiring recycling company in Turkey. At their location in the city of

Sakarya, LDPE / LLDPE postconsumer packaging waste are recycled into pellets for blown film applications. In order to meet the increasing market demand, CSR ordered an Intarema 1512 TVEplus® recycling machine in June 2022. In preparation for the company's entry into the field of bottle - to-bottle recycling, they decided to purchase also a VACUNITE® 2318 T 1500 recycling plant from EREMA, which will be the first Vacunite® line EREMA delivers to Türkiye. "EREMA is the best - known brand in the world of mechanical recycling technologies.

The machinery manufacturer is well known for its proven solutions that make it possible to produce high quality recyclates and to reduce operating costs and maintenance requirements", explains Ali Sarp Bingöl, board member of CSR Plastic, regarding their purchase decision.

As a signal of their commitment to the society, CSR Plastics has also purchased recycling machine developed by plasticpreneur. This is an Austrian start-up company which is a member of EREMA Group. Plasticpreneur recycling solutions are mobile and easy to operate without prior knowledge. These characteristics make them a perfect solution for CSR for raising awareness of the need for plastics recycling and giving the youngest generation in kindergartens and schools a better understanding of the recycling process and of circularity.

From The Sea Into The Tunnel: Kraussmaffei Customer Oldroyd Uses 100% Sea Plastics for its Products

What do a tunnel and hiking boot have in common? Both have a membrane that prevents the ingress of rain. In the case of the tunnel, the Norwegian company Oldroyd is an expert for the membrane and its injection - molded fixing product. It uses CX machines from KraussMaffei and 100% sea plastics.

Tunnels are an everyday phenomenon in Scandinavia because they are used to get around the many fjords. Norway alone has over 900 tunnels, and the world's longest road tunnel is also located there. The enclosures for the traffic are more complex than one might think because a sophisticated membrane system lies behind the pipes visible to the driver. This system prevents water penetrating the soil causing damage to the concrete.

Oldroyd is the top dog in the area of waterproofing against rain and holds over 90% of the market share in the Nordic countries. The key to success lies in the innovative strength of the family business in Stathelle (around 160 kilometers south-west of Oslo). Originally concentrating on film extrusion, founder John Oldroyd Cheetham also accessed the injection molding technology with the help of KraussMaffei and now successfully operates three hydraulic CX 160-750 with a clamping force of 1600 kN.

So - called spacers, curved products with grid structure, which create a distance between rock and membrane, are produced on these machines in a cycle time of roughly 15 seconds. They weigh approximately 150 grams, whereby there are around 20 different models, varying in diameter and height.

The construction of the Stockholm Bypass (a series of underground motorway tunnels) is currently the world's largest tunnel project. Thousands of spacers from Oldroyd are also used here.

100% sea plastics

300,000 to 400,000 of the spacers are required for one tunnel alone. For these quantities it pays off ecologically to use recycled materials. Oldroyd uses 100% sea plastics, consisting of roughly half PP and half PE. The remnants of broken fishing nets and plastic ropes are collected on the coast of Norway by specialist companies and crushed, washed, and regranulated. The subtle fish scent does not need to be removed for the tunnel construction.

The APCplus machine feature is very helpful for the changing material compositions and resulting viscosity fluctuations. It ensures a very constant shot weight by adapting the switchover point and the pressure level from shot to shot.

Safe "ghost shifts" at the weekend

Efficient automation is required in order to be able to produce plastic products competitively in Europe. All Oldroyd machines are therefore equipped with oversized LRX robots from KraussMaffei. With their very long vertical axle, these large quantities of manufactured products can be stacked up – starting with a ground-level pallet up to a height of two meters. In the case of the tunnel spacers, this volume covers the production of one (unmanned) weekend exactly.

2 - component project with TPE

A new CX with two - component equipment will soon go into operation at Oldroyd because John Cheetham has once again made a development that will change tunnel construction: a 2-component platen, called RoadStar, which is secured on the steel rods that connect the concrete wall and the rock layer. Up to now these platens were made of metal and corroded accordingly, which is why maintenance is required and a replacement after roughly 50 years. Whereas the RoadStars were estimated to have a service life of 120 years in special aging tests. This alone saves a lot of resources. The RoadStar was already tested by Oldroyd customers and was also widely accepted because the integrated TPE layer has a sealing effect, while the other side (made of PE) is impact - resistant. Success on the market and the correspondingly high numbers of units will mean more 2 - component machines will make their way north from Munich.

Construction of the Largest Recycling Plant for Food - Grade PET / HDPE Plastic in Vietnam by Alba Group

ALBA Group Asia, a provider of waste management and recycling solutions in the region, and VietCycle, a nationally established waste collection and plastics recycling company in Vietnam, announced the launch of a cooperation to jointly develop the largest plastics recycling plant for food - grade PET / HDPE in Vietnam.

"Our vision is a world without waste. At the same time, with our holistic approach and through the use of digitalisation, we want to contribute to sustainably improving the living and working conditions of collectors. With this project and the cooperation with our partners from VietCycle, we are taking a significant step in this direction. We are combining our expertise in global circular management and plastic recycling with the VietCycle team's knowledge of the local collection network. The project will be part of the much - needed solution to Vietnam's problem with growing plastic waste. It will also create a significant number of "green" sustainable jobs and improve the social situation of many people. For me personally, this is at least as important as the environmental benefits and the economic success."

At the signing of the cooperation agreement in the capital Hanoi, high representatives of the government of Vietnam and the German embassy confirmed the contribution of the project to one of the most urgent environmental problems in the country and pledged their support. They are aware that Vietnam is one of the biggest polluters of the world's oceans, according to the World Bank. Every year, Vietnam discharges about 3 million tonnes of plastic waste on land and an estimated 0.28 to 0.73 million tonnes of plastics waste into the ocean. Across Vietnam, local governments are struggling to collect, transport, treat and dispose of their growing waste streams. Rapid urbanisation combined with increasing economic and population growth will further increase the volume of waste.

Together with VietCycle, we want to tackle this challenge: The investment sum for the planned plant will be up to 50 million US dollars. We are aiming for a capacity of up to 48,000 tonnes per year. The first phase of operation is expected to start in 2024/2025. The project will use modern technologies to produce food-grade PET/HDPE following international standards set by the EU.

Through this partnership, VietCycle's network can grow and offer a significantly larger number of informal waste collectors an upgrade of their work, which is so important for Vietnam. Gender equality and social inclusion in the collection

system and in the plastic recycling sector are among the key objectives of the partnership. Hoang Duc Vuong, Chairman of VietCycle Joint Stock Company, who I hold in high esteem, said: "Working with ALBA Group Asia helps us realise our dream of recycling plastic waste based on advanced technology, contributing to sustainability and humanity."

In addition to our promising partnership and significant contribution to combating climate change in Vietnam, the expansion of the network will enable us and VietCycle to reach many of today's still very disadvantaged collectors and improve their lives by offering training and social security services. To this end, we will also involve the ALBA BERLIN Academy Asia, which is already active in ten countries, in order to combine existing offers with its school, sports and training programmes."

- Interzero
- Company & industry

Australia's backlog of soft plastic could be processed overseas before supermarket scheme is rebooted

Environment groups say strategy to restart recycling scheme does not go far enough in addressing waste problem.

Thousands of tonnes of soft plastic that was collected and dropped off by supermarket customers, and has been stockpiled since the collapse of a domestic recycling program, could be shipped to the US for processing.

The Albanese government has indicated it would grant an exemption to allow Coles, Woolworths and Aldi to send the plastic offshore for recycling despite a national waste export ban announced by the Morrison government in 2019.

The supermarkets have announced they hope to start a new pilot program collecting soft plastic at some sites before the end of the year, but it would depend on first clearing more than 12,000 tonnes across sites stockpiled in New South Wales, Victoria and South Australia.

With no local recycling facilities available to deal with soft plastic at this scale, the environment minister, Tanya Plibersek, said the government would support an export proposal "when there is an environmentally sound pathway for processing this material for recovery purposes offshore".

"Ideally, any exported soft plastics would be processed into recycled pellets that can be remanufactured in Australia," she said.

Germany on Cusp of Single - Use Plastic Levy to Support Regional Clean - Up Efforts

The cost of cleaning public spaces could be passed on to manufacturers rather than local councils under the single - use plastics fund act.

Germany is nearing the approval of a law charging manufacturers a levy for the cost of collection, cleaning and disposal of single - use plastic.

From next year, the cost of cleaning public spaces could be passed on to corporations rather than local councils following a law passed by the Bundestag, Germany's elected federal parliament, on 2 March 2023.

The draft single - use plastics fund act dictates manufacturers of items including plastic cups, bottles and crisp packets should contribute to a state fund. The fund's annual income is expected to be up to EUR450m (US$478.3m).

Administered by the Federal Environment Agency, Umweltbundesamt (UBA), the fund will be available to local authorities to go towards rubbish collection and cleaning costs, as well as "awareness - raising measures".

Cities and municipalities incur costs of up to EUR434m per year for collection and cleaning, according to a UBA study.

The legislation proposes manufacturers start to pay the levy from spring 2025 based on the type and quantity of products sold in 2024.

The German Retail Federation said it was difficult to estimate what total costs to businesses would be due to "the still unclear definition of the term 'manufacturer'."

Having passed the Bundestag, the law will now pass to the Bundesrat (federal council) for approval. It is set to discuss the draft on 31 March.