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For IFCA Membership and for Advertising in IFCA Newsletter, please contact Secretariat:

Indian Flexible Packaging and Folding Carton Manufacturers Association

B - 502, Kailash Esplanade, 5th Floor, Opposite Shreyas Cinema, LBS Marg, Ghatkopar (West), Mumbai-400086

Contact:

Mr R Chandrasekhar - 9619614052 Mr Narayanan - 8879431651 Mr Milind Wagle - 9821127409 E-mail: pffca01@gmail.com Website: www.ifca.net.in

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Editor **Mr Vilas Dighe** 9820501422



Consumer Packaging in India

ackaging has a unique role in Consumer Product Industry. Today, it has become an integral part of the product and the Brand. We enjoy vast range of our favorite products thanks to the packaging industry.

Packaging industry plays an important part by creating wealth through a vast range of manufacturing activities and preserves the value of many products manufactured by various industry sectors. Packaging was not just considered to be a protective and sealing element in the industry, it is a branding platform that can be absolutely used by a company in today's modern economic world. A unique packing by itself attracts more sales than a retro or ordinary packing. Packaging has a close relationship with an Indian consumer which goes beyond just 'use and throw.' In Indian economy, packaging industry served more than just a huge value addition and employment involved, it helped preserving product quality and elongated the shelf life of uncountable product ranges from milk to biscuits, medicines to drugs, processed foods, vegetables and fruits, edible oil, electronic appliances and so on. India, which is a seriously developing nation, has no room to compromise in terms of packaging where the major concentration has to be on product development and quality handling.

It is worthwhile to first look at some of the key factors that are in favor of consumer goods and therefore drive growth of consumer packaging in India. The factors include, population of almost 1.4 billion, growing consumerism, growing rural market, growing literacy – particularly 'smart phone literacy' driving on-line purchases, highest GDP, promotional encouragement by government, to MSMEs, 'Make in India' campaigns, ease of credit facilities

The India Packaging Market is expected to reach USD 204.81 billion by 2025, Packaging is among the high growth industries in India. Currently the 5th largest sector of India's economy, the industry has reported steady growth over past several years and shows high potential for much expansion, also in the export market. Over the last few years Packaging Industry is an important sector driving technology and innovation growth in the country and adding value to the various manufacturing sectors including Agriculture, Food and FMCG segments.

Plastic is one such inevitable material used in consumer packaging. But our relationship with plastic needs some major rethinking to protect the environment. While we all swear by the use of plastic in our daily lives, the way we use it is what creates waste. Sustainability' is no more a buzzword in the business environment it has become the need of the hour. In the world of packaging, Sustainable packaging is any packaging that includes environment friendly materials during the course of manufacturing and leaves behind no or very less environmental impact during its entire life cycle.

Packaging Industry, more so, the flexible packaging and carton packaging have made tremendous stride in the last few years. With market on an unprecedented growth path, innovations and creativity becomes the key to sustenance in Consumer Packaging Industry.

Vilas Dighe

Editor



Trends in Consumer Packaging in India

Amit Shah, Joint President & CMO, Flexible Packaging, UFlex

f the last two years has taught us anything, then it is how unpredictable the future is. While 2020 saw an unexpected and huge upsurge in packaging demand in India and the world due to hoarding and hygiene reasons with the onset of the pandemic, the subsequent year 2021 experienced fluctuation in input cost that impacted the flexible packaging industry. However amidst all this, the industry had a slow yet steady growth in flexible packaging consumption largely due to a swing towards packaged, ready-to-eat food offerings. Simultaneously, brands moved their focus back to sustainable packaging! It has been interesting to see people slowly adapting to healthier lifestyle, pick healthy foods packed in safe packaging and their increased conscience to have a better tomorrow!

As a cascading effect, the year 2022 seems to have a more inclusive spirit with sustainable packaging taking center-stage. Consumers are shifting towards smarter, greener, more accessible and affordable packaging options but with a much more innovative, ingenious and artistic outlook. There are two key factors we see driving change in packaging-one, an increased focus on climate change and sustainability, and second the need for improved hygiene.

Addressing these concerns whilst making



sure the products meet the market standards, many FMCG companies and packaging manufacturers are reconsidering sustainable packaging solutions to position themselves as a responsible brand. We all agree that quality convenience and packaging design plays a major role in influencing consumers' buying decision. It provides for a product experience, unique to the consumer as well as speaks about the brand values and ethics. With a significant amount of brands & consumers pushing for sustainable flexible packaging solutions, here are some packaging trends 2022 with a fresh, futuristic take!

Sustainability has been in for a few years but post the pandemic outbreak, its want has now transformed into an alarming need driven by the principle of -Reduce, Reuse, Recycle & Return- embraced by brands and packaging companies. They have been focused on developing packaging that fits one of these four criterions, i.e. it either reduces the volume of packaging to just what is needed thus cutting down on packaging waste

or reduces the amount of plastic at source; packaging that can be reused without sacrificing quality or purpose of packaging content like packaging developed with post-consumer recycled content (PCR) or is one that is fully recyclable. Employing methods like mono-materials in flexible packaging solutions, usage of sustainable and natural resources as packaging materials make the products eco-friendly, lightweight and affordable. Return to earth as a useful residue is another technology that packaging companies have introduced in the form of biodegradable packaging or bioplastics.

Minimalist packaging brings a much rather classy aesthetic, a stark contrast to the loud, bold and flashy colors and designs of the modern packaging industry. The appeal of 'less is more' is increasingly preferred by the consumers as simplicity with elegance is all what the consumers need today. Utilizing fewer materials, inks, labels and adhesives, minimalism makes it easy for the eyes and resultantly leaves lesser impact on the environment.

Tamper-evident
packaging makes the
consumers aware if the
product has been opened
thereby confirming for its
safety and authenticity. The
materials used in tamperevident packaging include
seal bands, lidding films,
blister packs, tamperevident closures. This helps

in protecting the products from possible tampering or damage and the consumer can be assured that their packages have not been mishandled by anyone. This is especially gaining importance with rise in ecommerce buys by consumers.

Vintage packaging has gained prominence recently as many consumers are intrigued by the idea of 'good, old days', reminiscent of the much simpler and peaceful times. The appeal that comes with the vintage aesthetic will always be unmatched with its nostalgic, old school color schemes, vibrant designs and classy typography that are paving up an emotional connect with the consumers.

Science and technology has emerged as a key enabler to facilitate interactive communication of consumers with packaging. Brand owners today have the opportunity to use intelligent packaging via interactive formats on their packaging e.g scanning codes and smart labels for personalized information, journey, product tracking and even instructions on how to use the product that they wish to provide to the consumer. This way, users learn a lot more about the product that companies can provide over their packaging.

Being the wonder material that plastic is, it has been a staple in packaging for eons but we can't negate how its waste is harming our planet. The industry has to create solutions that fix the problem of packaging waste forever. Almost 9 out of 10 enquiries that we receive at UFlex has a key sustainability component and this will continue to drive brands in this and coming years as well!



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Upcoming Manufacturing Facilities: India [Dharwad]

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UFIex Rides High On Innovative Product Developments

Launches a host of innovative products & solutions across the entire flexible packaging value chain in October - December 2021

Flex, India's largest multinational in flexible packaging materials & solutions and a global leader in polymer sciences has been riding



the waves of innovation to build packaging products, applications & solutions that will further enhance the role of packaging as a value-added responsible packaging.

In the quarter ending December 2021, UFlex unveiled a range of new products and solutions that meets various packaging needs of brands while aiding the consumers with added convenience and features. These developments affirms



UFlex' 360 degree focus on brand needs, user experience, and commitment towards the environment.

Reaffirming UFlex' commitment towards responsible packaging. Ashok Chaturvedi, Chairman and Managing Director UFlex Limited said, "UFlex has been walking the green path by recycling post-consumer MLP mixed plastic waste; upcycling recycled resins into our PCR films range and also creating solutions that use lesser amount of virgin plastic at source. The new high value line of products and solutions are aimed at adoption of responsible packaging and mirrors our increased focus and investments in R&D. We have already been recycling almost 30,000 tonnes of plastic waste per year with a target to reach 1,00,000 tonnes. The new recycling lines to be commissioned in our Mexico and Poland facility and the proposed recycling infrastructure in Egypt will help us realize our

Highlighted below are some of the marque products & solutions unveiled during the quarter.

Flexible Packaging Business

1) 3D Bags with Perforation to Give Kids an Easy-tear Experience: Kids unboxing their gift packs is nothing less than a celebratory ritual where they seek an emotional experience in checking what's inside the pack. However, when opening the package becomes an arduous task, it dampens their spirit. UFlex' product development team responded to the brand's ask for convenience that children need to access the toys or goodies inside the pack easily and introduced a smart solution by adding one extra attachment with a perforation line on the 3D bag enabling easy tearing of the pack. This absolutely novel concept has added convenience to joy and enthusiasm of children opening the package, thus making the brand enjoy popularity amongst them.

2) Standee Spout Pouches to Pour Out Chai: Beverage cafes have been embracing innovations that helps them cover the last mile smoothly to deliver hot, piping tea in its most pristine state to chai-lovers. Fulfilling



the need of beverage cafes to retain the temperature of tea for a long duration, UFlex has developed a special standee spout pouch that delivers the comfort of drinking brewed tea and

enhances users' experience. The pouch structure is made with BON and special grade PE along with 21mm spout on the top for spill-free pouring of the tea. With this pouch contained in a tea delivery box, the cafes are more confident of delivering the goodness of brewed tea at the doorstep of the consumers seamlessly.

3) Paper-based Packaging Laminate for Tetley Tea Bags: With rising concerns around packaging waste, Tata Consumer Products that wanted to make a switch to sustainable packaging for its brand 'Tetley Tea' collaborated with UFlex to supply its green tea bags in a paper-based packaging. For this, UFlex developed a packaging structure made of paper and aluminium foil with registered hot stamping feature using emerging high energy curing chemistries to deliver a high performance and low migration product system that supports crosslinking of inks and high gloss coatings. The advanced development process at UFlex besides being environment friendly with no CO2 emissions, replaces the conventional process in which solvents were used. The paper-based packaging structure can be easily recycled thereby taking the brand a step closer to its green mission and giving consumers a sense of pride in using sustainable packaging format.





Holography Business

1) Mirror Film for Safe & Appealing Toys: Toys help children have fun along with catering to their developmental needs, and are often their best friend. But in a world that is crowded with different options, the toy manufacturers have a tough job of making them appealing for kids who are known to have a short attention span. To address this challenge, UFlex has



introduced a mirror film for the toy segment under the 'Make in India' initiative to showcase its cuttingedge technology for toy segment applications. This new product made of soft polyester material, has been designed to



incorporate various patterns to ensure learning without compromising on child safety. The mirror-like effect has been achieved with an acrylic coating on the film. Replacing the traditional glass, the toy's mirror is unbreakable, foldable and appropriate for a child's use without any worries of accidents. Due to its success in the toy segment, extending its use in fashion and accessories segment such as on handbags, wallets, shoes, etc. is being explored.

Packaging Films Business

High-barrier 1) Metallized Recyclable BOPP Film 'B-TUH-M' for Food Packaging Applications: Low-unit packs (LUP) and Multi-unit packs (MUP) such as biscuits, bakery & snacks often witness quick consumption. These packs require a packaging structure that is made using a metallized film that offers superior oxygen (<10cc/m2/ day) and moisture barrier (<0.10 gm/m2/day) with robust seal performance. B-TUH-M, a high barrier and robust seal metallized BOPP film has been developed by UFlex to replace the three-layered structure with two-layers in numerous seal packaging formats especially multi-unit packs. The film offers good optics, excellent printability, and consistent slip & anti-static properties. The high barrier film's structure imparts excellent high seal strength of 1500 gm/25 mm, hermetic seal, high & broad hot tack and low SIT. The film also offers good metal adhesion for brilliant metal appearance, good extrusion bond and excellent resistance to metal cracking. Due to its ability to be recyclable and reduced

layers in the laminate, this sustainable film is greening our portfolio even further.

2) Multi-layered Monomaterial BOPP Film 'B-TGM' with Outstanding Oxygen, Aroma & Moisture Barrier for Pouches and Bags: Some oxygen-sensitive foods like dry-fruits & nuts need to be packed such that it helps retain its freshness and quality for long while locking in its aroma. The newly developed B-TGM BOPP is made to address the barrier requirements for oxygen, moisture and atmospheresensitive products. B-TGM is a special effect coated BOPP film with the best oxygen barrier delivering the least OTR ever for a



visibility is an environment friendly solution; and has properties infused into the mono-material film through a unique step proprietary process onto a specially formulated coating and base film substrate. This multilayered mono-material BOPP film substrate is specially designed with special polymers to achieve ease of processing for the converters that consequently enhances shelf life of the packed products.



BOPP film (<0.28 cc/m2/day). It has excellent water barrier properties (<2.9 gm/m2/day) in duplex structure, exceptional moisture resistance and low heat seal initiation temperature (95 °C). The recyclable film that offers excellent clarity and product

Chemicals Business

1) High-performance Sealing for Packaging with Flexbon 601A_Flexbon 601W Adhesive: A high opacity and two-component solvent-free white adhesive, 'Flexbon 601A_Flexbon 601W' is best suited for food packaging such as snacks and staples





that requires added strength in sealing. It is compatible with various films such as PET/MET PET, BOPP/MET BOPP, PET/MET CPP. Due to its excellent wettability that helps it maintain a firm contact with substrate, the product reduces the requirement of white ink coating substantially and delivers good optics. These factors add value to clients' products by offering optimum results that elevates the look of a printed pack considerably making them even more eye-catchy.

- 2) Two Component Solvent-free Adhesive, Flexbon 702A_Flexbon 777C for Multiple Laminates: It is a two-component solvent-free adhesive used for general to medium performance in snack packaging applications. It provides fast cure, high-run speeds with an excellent appearance to the laminates. This product offers excellent wetting on metallized substrates to give speckling-free performance on PET, BOPP, LDPE, MBOPP, MCPP and MPET based applications.
- Flexcure Super Glide Coating for Lustrous Looking Packs: The attractive appearance of a clear, glossy coating is an important feature for many packaging applications. Flexcure Coating is a free-radical chemistry-based UV coating, that is applied in-line over wet or dry UV inks, or offline over dry conventional inks to impart excellent slip & scuff resistance properties. Flexcure Super Glide Coating is a great fit for fast curing in different types of food and non-food applications such as PVC sheet, mono-cartons and book titles.
- 4) FlexFab HR Ink for Cement & Fertilizers Packaging: Packaging for



building materials and fertilizers require ink with sharp printability and impressions due to the intrinsic woven packaging structure. With its expertise in ink domain, the Chemicals business has addressed this challenge with FlexFab HR Ink, a solvent-based printing ink designed for printing on HDPE/PP woven packaging structures. Due to its sharp printability, high strength, excellent adhesion on laminates and scratch resistance properties, FlexFab HR Ink is highly valued by its customers.

Engineering Business

Registered Lamination Process led Machine for Clear Product Packaging: Brands have always been exploring ways to earn consumer's trust and gain credibility for their product. One way to achieve this is to give consumers a clear view of what's packed inside via a see-through window. However, in achieving this, the aesthetic of a pack often tends to get compromised. To ensure a fine blend of giving a clear view as well as maintaining visual appeal, the Engineering business of UFlex has introduced registered lamination process. The automated process embedded in the machine combines two films into the process that keeps track of the pre-printed mark on film on both unwinders. This process detects any errors emanating which yields a precise registered lamination product with zero defect output. During the entire process, the products' visibility & packs' aesthetics remains the focal point. This process has already found acceptance by quite a few customers wanting to promote product visualisation.

For media queries, contact: Aarti Laxmanan | UFlex | E: corpcomm@uflexltd.com | M: +91 98998 13325

About UFlex:

UFlex is India's largest multinational in flexible packaging materials and solutions and a global polymer sciences corporation. Since its inception in 1985, UFlex has grown from strength to strength to establish presence across the world though manufacturing units and customers. Today, it has state-of-the-art packaging facilities at multiple locations in India and has packaging film manufacturing facilities



in India, UAE, Mexico, USA, Egypt, Poland, Russia, Hungary and Nigeria.

Integrated within its core business profile of Flexible Packaging and Packaging Films are allied businesses like Aseptic Liquid Packaging, Engineering, Cylinders, Holography and Chemicals which further gives UFlex a superior edge over competition. UFlex offers technologically superior and sustainable packaging solutions for a wide variety of products such as snack foods, confectionery, sugar, rice, other cereals, beverages, tea & coffee, dessert mixes, noodles, wheat flour, soaps, detergents, shampoos, conditioners, vegetable oil, spices, marinades & pastes, dairy products, frozen food, poultry, anti-fog, pet food, pharmaceuticals, contraceptives, garden fertilizers, plant nutrients, motor oil, lubricants, automotive and engineering components etc. A B2B manufacturer, UFlex has also added new consumer facing products to its portfolio, like sanitizers and N-95 masks.

The group with a 9000+ strong multi-cultural workforce has been providing innovative, value-added and sustainable packaging solutions to numerous Fortune 500 companies, spread across 150 countries worldwide.

A winner of various marquee global awards for its products' excellence, innovation and sustainability, UFlex became the 'first company in the world to recycle mix plastic waste' earning it recognition at Davos Recycle Forum in 1995. For more details, click on: www.uflexltd.com

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UFIex Chemicals Introduce Zero Liquid Discharge Technology at its Noida Facility for Water & Environmental Protection



Saving 20 kilolitre of water everyday

oida, India:
Driven by
the aim to
attain water
sustainability
and reduce its
consumption and pollution,
the Chemicals production

unit of UFlex situated in Noida is now a Zero Liquid Discharge (ZLD) facility. ZLD is a strategic waste water management system that ensures that there is no discharge of industrial wastewater into the environment, which is why UFlex has proactively adopted this technology to significantly reduce their freshwater consumption by recognizing the importance of wastewater purification and recycling. The

Chemicals plant that has adopted ZLD technology has started saving close to 20 kilolitres of water/ day.

UFlex' Chemicals business develops ecofriendly, sustainable and



food-safe compliant inks, adhesives, coatings and biodegradable packaging solutions such as primers, barrier, gloss and heatseal coatings which are ecologically conscious with a lower carbon footprint. While UFlex has been making a conscious effort to bring down the use of water while developing these solutions, with the implementation of ZLD technique the plant has ensured that no liquid waste is eliminated and its maximizes water usage efficiency.

The zero liquid discharge Chemical plant uses a 100% supply of effluent treated water of Sewage treatment plant (STP) as well as Effluent treatment plant (ETP). It is subsequently treated through the combination of technologies like Membrane Bio-Reactor (MBR), Reverse osmosis (RO), and Agitated Thin Film Dryer (AFTD). The permeate good quality water which is the final product derived is thus re-used in boiler feed, cooling tower makeup water, and fume hoods; without being discharged into the municipal sewer thereby putting the discarded water back to use. The rejected water is converted in to solid waste residue via evaporation process which is in turn discarded as hazardous waste (as per the regulatory norms).

Expressing his delight on this new development, Rajesh Bhasin, Joint President, Chemicals **Business at UFlex** commented, "At UFlex Chemicals, we are proud to announce that our Noida Production has achieved the status of a Zero Liquid Discharge facility. We have adopted this technology to contribute positively to the environment by considerably reusing and recycling waste water in order to save groundwater consumption and is a big move for us in reducing our overall water consumption and ensuring that wastewater does not get discarded into the environment. We are working hard to follow the circular economy model at our facility and systematically implement means that are environmentally conscious so that we can conserve our natural resources for the future. Progressing further, we look forward to implementing the ZLD technology in our other production facilities as well, in order to contribute towards a sustainable future."

About UFlex Chemicals Business:

The Chemicals
Business of UFlex that was incorporated in 1994 and headquartered in Noida is the leading provider of flexible packaging Inks, water-based, solvent-less and solvent-based adhesives and speciality UV & LED Coatings with the full range of UV and LED inks/ coatings for sheetfed offset, letterpress & narrow web application serving customers across the

globe. Noida and Jammu plants are accredited with several certificatessuch as ISO 9001:2015, ISO 14001:2015, ISO 45001:2018, ISO 50001:2018, and ISO 31000:2018. Its state-ofthe-art R&D centre is NABL (ISO/IEC 17025:2017) accredited & recognized by The Department of Science and Technology, Government of India. The verticals' prime focus remains on developing sustainable technology, customized products, foodsafe toluene free compliant inks as per IS 15495:2020 and providing on-site support to our customers.

For details please visit: https://www.uflexltd.com/ chemicals.php

About UFlex:

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For more details, click on: www.uflexItd.com



Growing Trends of Sustainability in the Packaging Industry

he role of sustainable materials has grown exponentially in packaging sector. Packaging Industry is taking longer strides towards green solutions, as brands and businesses are opting for sustainable packaging more than ever. **Sustainable Packaging** is not only considered critical to the circular economy and environment friendliness but is now becoming important among consumers as well. Ever since the pandemic outbreak, it is interesting to see consumers getting

more inclined towards sustainable packaging, not just to enjoy the virtues of safely packed consumables but also with a view to contribute their part in protecting the environment for a comfortable living.

So, What Exactly is Sustainable Packaging?

'Sustainability' is no more a buzzword in the business environment it has become the need of the hour. In the world of packaging, Sustainable packaging is any packaging that includes environment friendly materials during the

course of manufacturing and leaves behind no or very less environmental impact during its entire life cycle. In the quest to peddle the movement of circular economy, use of sustainable materials in developing new packaging is a viable alternative that leaves a positive impact on the environment. Therefore, any packaging that is recyclable, safe for the environment, uses renewable and reusable raw materials and implements environment friendly manufacturing practices with minimal impact on natural resources falls under the

classification of **sustainable packaging**.

Conventional ways of manufacturing of flexible packaging employ various formats of plastics in form of layers. These layers demand not just complicated methods of manufacturing and recycling but also leave behind a detrimental impact on the environment. Adopting green packaging solutions is the most effective way to combat this problem. With rising conscience towards safe packaging, hygiene and environmental awareness the adoption of sustainable packaging is gaining



grounds to become one of the most recent trends in **flexible packaging** sector. Packaging converters and brands are embracing various **sustainable packaging** options solutions to check the green packaging requirements. Some of these include:

Replacement of Fossil-Fuel-Based Plastics With Bioplastics:

With growing focus on sustainability, use of bio-plastics in packaging industry is on the rise. Bioplastics are made from biodegradable, renewable resources such as corn starch, proteins, and polylactic acids. Bioplastics leave far lesser carbon footprint and decompose much faster than traditional plastics. Bio-plastics are made of natural composition due to which they can be naturally recycled by biological process.

Using sustainable inks and dyes

A world without ink would essentially be a world without colour. Beyond the mandatory elimination of heavy metals from printing jobs such as cadmium, lead and mercury, alternative eco-friendly inks today come in various forms such as water-based, biodegradable, latex, UV & EB curable inks and more. Inks based on natural ingredients consist of a major percentage (50 to 90%) of renewable resources in the form of inedible plants and algae, which do not hurt the food supply whilst also lowering carbon footprint with lesser consumption of water and energy. With Sustainability on the rise use of solvent-free and water based inks are gaining momentum as they complement ease of recycling and help

brands step closer to their sustainability goals.

Sustainable adhesives:

With sustainability taking the centrestageuse of sustainable adhesives in flexible packaging is gaining acceptability. Sustainable adhesives such as solvent-free, recyclable, compostable and biodegradable adhesives taking foreground and with their introduction packaging manufacturers and brands have been able to elevate their sustainable footprint in the ecosystem. Sustainable adhesives leave less environmental impact and carbon footprint and VOC(volatile organic compounds) and its use is gaining prominence for printing and packaging jobs in the recent times.

Utilizing recyclable and reusable materials:

Switching from single-use plastics such asthermocol, styrofoam to recyclable materials like corrugated cardboard, paperboard, etc. brands are now considering a wide range of materials that are fully recyclable. Paired with reusable packaging, this strategy meets the demands of the increasingly aware consumers who want more sustainable options while keeping in mind environmental concerns. It also lessens disposal costs for consumers, reduces waste and is very beneficial for a circular economy.



Rightsizing – That Extra Packaging:

A fairly new trend, it refers to the "practice of reducing packaging size, fill material and paper waste through conscious design choices". This helps in minimizing space in addition to protecting the contents resulting in a reduction in the amount of waste per package.

In its pledge towards creating a plastic waste free planet, **UFlex** has been recycling plastic for more than three decades. The company has established recycling units in its plants that converts MLP Waste into Pellets and that are used to manufacture industrial and household products. The company has also installed postconsumer plastic waste and post-consumer PET bottle waste recycling lines at its strategic locations across the globe. Focusing on transforming plastic waste into wealth,

UFlex is also working on packaging solutions that approach stronger towards sustainability and aims at keeping plastic in the economy but out of the environment.

Source: https://www.uflexltd.com/blog/growing-trends-of-sustainability-in-the-packaging-industry/

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