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A journal for the growth and development of plastics trade & industry

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Editorial

Dear Friends,

The month of June and July has been all about sports! The World Cup and India's fine run in it was followed by interest by everyone until the excitement came to an abrupt stop in the semi-finals. The finals however turned out to be even more dramatic with a double tiebreaker in one match providing an inconclusive outcome and a shock winner. The general consensus however was that the match and this trophy merited two joint winners.

Not unlike the perception battle being fought between plastic and compostable paperboard food packaging. Both have their merits and demerits and neither can be declared the unambiguous champion when it comes to packaging of edible foodstuffs. While single use plastic has been rightly criticized for contributing to global pollution, cardboard isn't quite the panacea that it is made out to be. Emerging studies show that paperboard packaging can start hosting bacteria and other contaminants in select cases. It is in cases like these that good umpires or regulators can make a world of difference by developing guidelines on the usage of material on the basis of durability and material being stored in them.

Oh, and we also had the Union budget in the beginning of July, which would have been passable in its tedium had it not been for the customs duty hike of 2.5% on polymers that will likely affect the margins and business of almost everyone in our forum.

Do write to us at IPF and Plastics India expressing your suggestions for improving the experience and positive feedback if you liked what you saw. If we incorporate your essay in our next publication, you will receive a small token of appreciation. Mails must be addressed to me and mailed to office@ipfindia.org

Harsh V. Agarwala
Co-Editor

Presidential Address

Dear Friends & Colleagues,

The much awaited budget 2019 was presented by the Hon'ble Union Finance Minister Ms Nirmala Sitaraman on 5th July 2019. The government tried to present a balanced budget by keeping personal income tax unchanged but raising taxes in certain areas. Cess on fuel has been increased by Rs.1, making petrol and diesel costlier that will have its own cascading effect. Customs duty on some Plastic Products has increased from 10% to 15% as given below.

- HS Codes of Heading 3918 : Floor coverings of plastics, whether or not self-adhesive in rolls or in the form of tiles; wall or ceiling coverings of plastics, as defined in note 9 to chapter 39.
- 39269091 – Other; of polyurethane foam HS Code, and
- 39269099 – Other
- Basic Customs duty on PVC increased from 7.5% to 10%. Basic Custom Duty on Naptha falling under 2710 reduced from 5% to 4%. Basic Customs duty on Ethylene Di-Chloride (EDC) HSN Code 29031500 reduced from 2% to NIL.

The Federation in association with Indian Plastics Institute (Kolkata Chapter) organized a Seminar-cum-technical lecture on "3D Printing – The Next Industrial Revolution" on 21st June 2019 at its Conference Hall. In this connection a few lines on 3D printing in plastics is given below:

The 3D printing plastics market is segmented on the basis of type into polymers, metals, ceramics, and others. The polymer type segment will dominate the market in the upcoming years. The growth is attributed to the low production expense of polymers. Also, polymeric reliable as compared to the metal. That is why it is gaining significance across the globe. Based on the end-use, 3D printing plastics market has been segmented into healthcare, consumer products, aerospace & defense, industrial, automotive, education & research, and others. Healthcare sub-segment is expected to dominate the end-user segment. The growth of the sub-segments attributed to the significant application of healthcare in dental surgery, replacement of burnt skin, and airway splints for babies and many others.

North America is growing with the highest growth rate in the global 3D printing plastics market. The region is likely to continue its domination over the forecast period. The growth of this regional market is attributed to rapid technological advancements across the region. The high adoption rate of 3D technology across various industries will fuel the growth of the regional market. Europe is predicted to have a substantial revenue share in the global 3D printing plastics market. The region is considered as diverse and developed. Asia Pacific 3D printing plastics market is anticipated to provide significant growth opportunities for the players during the forecast timeframe. The growth can be attributed to the increasing usage of polymers for the mass production and tooling operations such as thermoplastics, ABS, bio-plastics, and resins in automobile and aerospace industry.

In India, the market for 3D printers is at its nascent stage; however, offers huge growth opportunities in the coming years. Low market awareness, cost constraint, and lower domestic production are witnessed as key hurdles for the adoption in the country. Expected domestic production, low cost of manufacturing, and increasing penetration across various applications coupled with Make-in-India campaign would spur the 3D printer market in India. However, with low cost of production, increasing awareness & penetration, and advancements in material research, 3D printer market is expected to witness tremendous growth in the coming years.

With warm regards,

Alok Tibrewala
President

Secretary Message

Dear Plastizens,

Sharing some of the recent major activities of IPF

1. We all want 360 degree growth of our organization. Hence, A workshop on "Small Steps, Big Change" was held on 25th May 2019 at IPF Conference Hall where "Good health shall bring Growth" was conceptualized, discussed and implemented. The speaker was Ms. Heena Nafis, a leading nutritionist of Eastern India.
2. All elected, co-opted and past president have been informed through e-mail to file their DIR-3-KYC as per Rule 12A of Companies (Appointment of Directors) Rules, 2014. They have been requested to file their KYC by 30th June 2019.For knowing more, contact the secretariat.
3. An email has been sent to all members regarding Organisation of Plastics Processors of India organizing a Seminar on 20th September 2019 at Topaz, Hotel Hindusthan International, Kolkata on 'Crucial Role of Maintenance in Plastic Processing Industry'. IPF members have been offered a discount special discount on participation fee. All who are interested, please block your dates and contact immediately with Mr. Deepak Lawale at oppi@vsnl.com
4. IPF intends to take a delegation to K 2019 – PLASTICS AND RUBBER EXHIBITION to be held in Dusseldorf, Germany from October 16 – 23, 2019. Shri Pradeep Kr. Kedia is Convenor of 'K' tour. In this connection an email has been sent to all members, giving details of cost and travel itinerary, requesting members to intimate their interest in visiting 'K' exhibition. All members are requested to get in contact with Mr Pradeep Kr. Kedia quickly as we have limited seats.
5. The Federation was invited to a programme on World Environment Day 2019 held on 4th June 2019 at Biswa Bangla Convention Hall, New Town, Rajarhat, Kolkata by West Bengal Pollution Control Board, GoWB.. The programme was started with Welcome Address by Dr. Kalyan Rudra, Chairman, West Bengal Pollution Control Board.

   The Chief Guest was Dr. Soumen Kr. Mahapatra, Hon'ble Minister-in-charge, Department of Environment and Public Health Engineering, Govt. of West Bengal. Guest of Honours were Shri Shubhaprasanna Bhattacharya, Eminent Painter and Swami Shubhakarananda, Ramkrishna Mission Ashram. Shri Indevar Pandey, IAS, Addl. Chief Secretary, Department of Environment & Forests, Govt. of West Bengal was as a Special Guest. Shri Jayanta Bandyopadhyay, Executive Secretary - IPF represented the Federation in the said programme and met MIC and briefed him about the activities of IPF related to the environment. Lastly vote of thanks was given by. Dr. Rajesh Kumar, IPS, Member Secretary, West Bengal Pollution Control Board. The Programme was well attended.
6. Shri Alok Tibrewala, Myself and Shri Jayanta Bandyopadhyay met Mr. Debabrata Majumdar, MMIC-Solid Waste Management (SWM), KMC and Mr. Subhasish Chatterjee, Director General-SWM, KMC for discussing the solid waste management in West Bengal. We have been assured that, In future we shall work more closely with each other. IPF has assured that we will identify some good recyclers so that the collected waste can be segregated and sent to the proper place for recycling.
7. A Seminar cum Technical lecture on 3D printing - The next industrial revolution was organized by Indian Plastic Institute in association with Indian Plastic Federation at IPF Conference Hall. The name of the Speaker was Mr. Parth D. Gathani.

Friends, with stable government in place, we all want the economy now to move on the growth trajectory. Lets tighten our belts and prepare ourselves for the growth.

Government is also keen on defining the draft of single use plastic. We are also sending a representation to them so that a proper code of conduct is set. In this regard, any member having any inputs, please share with me or our environment chairman, Shri Rohit Anchalia.

We are organizing workshop frequently for the knowledge enhancement of our members. Please come forward with large numbers to participate & grow our knowledge.

With warm wishes

Manish G. Bhaia
Hony. Secretary

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TECHNICAL LECTURE ON "3D PRINTING" – THE NEXT INDUSTRIAL REVOLUTION

Indian Plastics Institute (Kolkata Chapter) jointly with Indian Plastics Federation held a Technical Lecture at IPF Conference Hall. The subject matter of the Technical Lecture was '3D Printing – The Next Industrial Revolution'. The speaker was Mr. Parth D. Gathani, Co-founder and CEO of Trivimus Technologies, Eastern India's leading industrial 3D printing and product Development Company. Many members attended the programme.

WARNING: COMPOSTABLE FOOD PACKAGING MAY BE HAZARDOUS TO YOUR HEALTH

Compostable food packaging is becoming all the rage as an alternative to that evil material plastic. More and more restaurants where I eat are putting my leftovers in compostable paperboard boxes. However, according to a new study, compostable food containers might not be the environmental panacea they're cracked up to be.

A new study by researchers led by Youn Jeong Choi of Purdue University in Indiana found that per- and polyfluoroalkyl substances (PFAS), used as oil and water repellents in the making of containers to prevent leakage, transform into perfluoroalkyl acids (PFAAs) inside large-scale composters. The results of the new study showing how compostable food containers might be harmful when the compost is used in soil for food crops were published on May 29, 2019, in Environmental Science & Technology Letters.

PFAAs have been shown to migrate from commercial fertilizers into humans, said an article on the study in Cosmos magazine, "Compostable Food Packaging May Contaminate Compost," written by Andrew Masterson.

"Long-chain PFAS, particularly perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS), have been linked to poor health outcomes, including increased cholesterol and lower fertility," writes Masterson. "As a result, U.S. companies have phased out production and shifted to the short-chain varieties. Little research regarding their health impacts has so far been conducted."

The research of Choi and colleagues, while showing no evidence related to any specific health concern, does provide a "brute measure" of the degree to which perfluoroalkyl acids persist through commercial processes. The researchers tested 10 samples, drawn from facilities in five U.S. states. Seven of the samples were taken from large-scale composing facilities that used food containers in their mix; two were from operations that excluded the containers; and one was from a backyard compost bin.

While all of the samples contained perfluoroalkyl acids, levels were much higher in those derived from compost materials that included food containers. "Most of the PFAAS were directly attributable to the degradation of short-chain PFAS, although all samples also contained smaller amounts of the long-chain type—reflecting their continued use in some other countries," said the article.

The bottom line is that scientists don't know whether putting the compost from these food containers into crops is healthy for humans. A report on the research in Courthouse News, published May 29, said, "Biodegradable bowls, cups and cartons can be added to compost piles, because they are made with materials that degrade relatively quickly."

However, these biodegradable and compostable food containers require liners that have oil- and water-repelling properties (PFAS), said another article in Popular Science ("Eco-friendly Packaging Could Be Poisoning Our Compost"). "PFAS are useful, but the major problem with many of them is that they never fully break down in the environment, and some have been found to pose serious health risks," writes Ula Chrobak, author of the article.

Chrobak noted that Heather Trim from Zero Waste Washington called Linda Lee, an agronomist at Purdue University and lead author of the study, concerned that this push to compost all these food containers had become worrisome. She told Lee, "I think we've made a big mistake—we didn't know about these perfluorinated compounds."

"In composting systems, these chemicals could become a problem in two ways. First, if the compost is applied to crops, the plants could absorb the PFAS, and we'd ingest the chemicals as we ate vegetables from these fields. The shorter-chain molecules are also very soluble, and can move into groundwater and rivers, thus threatening drinking water supplies," write Chrobak.

Test results sent to Zero Waste Washington prompted the passage of Washington's Healthy Food Packaging, which bans all PFAS in paper food containers, long and short chain, and takes effect in 2022.

Courthouse News' Martin Macias Jr. said that, in an e-mail, Linda Lee stated what the packaging industry—and consumers—must do next. "They will need to invest in finding alternative protective coatings, which at this moment is likely to be a challenge. Also, as consumers realize more about this chemical class, they will start to look to support products that do not contain them," Lee wrote. "Many may also choose not to compost their compostable packaging."

I've got a great idea: How about using recyclable thermoformed food containers that don't need chemical liners to keep grease and liquids from leaking through!

Hey, better the devil you know than the devil you don't know. Call a halt to this never-ending search for the perfect biodegradable/compostable lined paper food container that is probably worse than the plastic it's trying to replace.

Source : Clare Goldsberry

BEN & JERRY'S TO ELIMINATE SINGLE-USE PLASTICS IN SCOOP SHOPS WORLDWIDE

Unilever recently provided an update on its movement toward eliminating plastic packaging waste from the environment. The company's global strategies include ensuring all plastic packaging is 100% recyclable, reusable or compostable by 2025, and making a commitment to using a minimum of 25% post-consumer recycled resin in its plastic packaging by 2025. A short-term goal involves reducing packaging weight by one-third by 2020.

Many of Unilever's consumer product brands already use 100% post-consumer

recyclate (PCR), something Unilever wants to increase. Other brands are making significant progress by including 25 to 50% PCR in some packages, including Suave, Dove Men+Care, AXE, Vaseline and Caress.

Eliminating single-use plastics is a big goal at Unilever's wholly owned subsidiary Ben & Jerry's, which made a major commitment to "no plastics" this year by announcing it would remove single-use plastics from its Scoop Shops. The brand will no longer offer plastic straws or spoons in any of its 600 shops worldwide this year; it will address plastic cups and lids by the end of 2020, according to Unilever's update report.

Ben & Jerry's Scoop Shops currently hand out 2.5 million plastic straws a year, and 30 million plastic spoons, according to Jenna Evans, Ben & Jerry's Global Sustainability Manager, who is leading the transition from plastic straws to paper straws (available by request) and plastic spoons to wooden spoons. "We're not going to recycle our way out of this problem," said Evans. "We, and the rest of the world, need to get out of single-use plastic."

In the announcement made by Ben & Jerry's, the company noted that on April 9, 2019, Scoop Shops completed the transition to wooden spoons. By the end of next year, Ben & Jerry's will find an alternative to clear plastic cups, plastic-lined cups and plastic lids.

It's going to be interesting to see what type of material Ben & Jerry's will find for its ice cream cups if they no longer accept paper cups with a polyethylene lining. Wax linings are an alternative, but either way, linings make the paper cups non-recyclable. A clear plastic cup would be far more eco-friendly and perhaps the company could find a way to educate its customers to put them in a recycling bin. Littering by uncaring consumers is the biggest problem we have with regard to waste packaging in the environment.

Many of us remember the days of the wooden ice cream spoon attached to the bottom of a paper ready-to-eat ice cream cup with paper lid. Nothing could be worse than eating ice cream with a wooden spoon—splinters in your lip, anyone?—not to mention that the manufacturing process takes far more energy and kills more trees than plastic spoons.

The announcement noted that the company has a history of striving for more sustainable packaging solutions. Pints and "tubs" (as Ben & Jerry's container is known in the UK and Europe) have been made with Forest Stewardship Council (FSC)–certified paperboard since 2009. But because they are coated with polyethylene to create a moisture barrier, they are difficult to recycle. Evans said Ben & Jerry's is looking at options. "Over the past year, we have begun an intensive effort to find a biodegradable and compostable coating that meets our product quality requirements," she said.

What Evans fails to understand is that anything labeled "biodegradable" is only biodegradable if left out in the open for a length of time where sunlight, microbes and moisture can work on the material. California is one state, in particular, that has a distaste for all things claiming to be biodegradable.

Evans noted that in the "short term, eliminating plastic straws and spoons is not going to save the world." No, duh! I guess no one over there saw the survey showing that using plastic straws is at the bottom of consumers' "guilt meter."

Studies continue to show that plastic is far more eco-friendly in terms of energy and resource savings than many alternative materials. I guess Jon Huntsman Sr.'s comment would be appropriate here when it comes to using wooden spoons to eat ice cream: "Use old dinosaurs, not new trees."

Source : Plastics Today

NATURE WORKS EXPANDS INNOVATIVE APPLICATIONS OF INGEO BIOPLASTICS

At CHINAPLAS 2019, advanced materials company NatureWorks has showcased new, innovative applications using Ingeo biomaterials across a spectrum of industries, from coffee capsules to food appliances to 3D printing.

These applications demonstrate how Ingeo can be tailored to enhance performance attributes critical to application performance from barrier, to heat and impact resistance, to thermoformability, all while embracing the concepts of a circular bioeconomy.

As part of NatureWorks' commitment to the circular bioeconomy and decoupling materials from fossil feedstocks, the company announced earlier this year that by 2020, 100% of the agricultural feedstocks used for Ingeo biopolymer will be certified as environmentally and socially sustainable.

"New materials innovation is being driven by the tenants of the circular bioeconomy, and as we seek to decouple plastics from fossil feedstocks, we remain committed to feedstock diversification and to critically assessing the sustainability of every feedstock we use," said Rich Altice, President and CEO, NatureWorks.

New break-away formulation for 3D printing

As introduced, filaments made with Ingeo PLA have notable 3D printing characteristics such as precise detail, good adhesion to build plates (no heating needed), less warping or curling, and low odor (no strong, greasy, or oily smell while printing). These properties make Ingeo PLA well-suited for 3D printing using many different types of printers and for a broad range of printing applications.

"We started in the consumer printing. Now, we see a lot of interest for new products in the professional market," said Rich Altice. "Therefore, we developed Ingeo 3D450, 3D850, and 3D870 to meet the demanding printing needs of professional users."

The company launched Ingeo 3D450, a new break-away formulation for use in dual extrusion 3D printers, in March this year.

The clean, fast mechanical break-away of Ingeo 3D450 support structures results in parts with high finish quality, reducing post-processing time and improving

overall productivity. The new grade of Ingeo offers heat and impact resistance performance comparable to ABS but without the chemical fumes associated with ABS.

"With trends towards printing on large format printers and designing complex print geometries, functional break-away support structures are essential," said Rich Altice. "Combining the printability and low warping tendency of Ingeo with optimized adhesion, 3D450 provides the required adhesion between the supports and the part, yet allows for clean separation."

According to Rich Altice, applications for Ingeo 3D450 support materials include complex industrial parts such as jigs and fixtures, biomedical devices, patterns for investment metal casting, and architectural and retail models.

Talking about the challenge of developing products for 3D printing, he commented: "The biggest challenge we are facing is that the market is evolving very fast and there is so much interest in Ingeo now. We want to keep innovating and developing new solutions that meet the evolving needs of our customers."

"In China, Ingeo PLA is an essential material for 3D printing. PLA is a default material for 3D printing not because of its sustainability benefits, but because of its performance. It is not just popular in the consumer market, but also emerging in the professional users and industrial market segments. The prospect for 3D printing is very good," said Pauline Ning, Marketing Manager Asia Pacific, NatureWorks.

Save energy with refrigerator liners made from new Ingeo system

As introduced by Rich Altice, another highlight at the show was the first-of-its-kind refrigerator liners made from a new Ingeo system, showing how Ingeo's barrier properties can be leveraged to increase the energy efficiency of refrigerators by 7-13% annually over the life of the appliance.

"We have pushed the boundaries for how the right materials can help reduce the energy consumption of a refrigerator," he said.

"A new rigid and durable sheet made of Ingeo can replace high impact polystyrene refrigerator liners. The energy savings over its lifetime are equivalent to 2 years energy free operation compared to the incumbent liners," he mentioned.

Green packaging to promote circular economy

Sustainable packaging is an application for Ingeo biomaterials to contribute to the goals of the circular economy from recycling to diverting food waste to compost.

At the show, NatureWorks featured the results of the investments it's making to support the functionality needed for compostable coffee capsules.

For many years, NatureWorks, compounders, converters and coffee companies have engaged in comprehensive research efforts using Ingeo to solve the many technical challenges.

Steve Davies, Vice President, Performance Packaging, NatureWorks, said these technical challenges include making the capsules that meet temperature, pressure, and filtration requirements yet are still compostable. These technical achievements have opened up new pathways to achieve success in both coffee platforms.

"As the legislative pushback on plastics is going strong, the market is looking for fully compostable coffee capsules. It is a very fast-growing and potential market for us," he explained.

A new generation of coffee capsules made from Ingeo biopolymer, which are not only compostable, but help to improve the consumer experience in terms of flavor and aroma with better organoleptic properties, was demonstrated at the show.

Commenting on the outstanding integrated oxygen barrier in multilayer capsule structure, Steve Davies said: "The oxygen barrier of Ingeo construction with a compostable barrier layer exceeds that of incumbent PP/EVOH structure even at high relative humidity. In this case, there is no need for secondary packaging."

In addition, specific to the market in China, NatureWorks also demonstrated examples of adhesive tape and air-filled packaging made from Ingeo for e-commerce packaging and carrier bags used for supermarkets.

Views on bioplastics and plastics ban

Not all bioplastics are biodegradable. The biodegradability of bioplastics is one of many hurdles to overcome when trying to push the market for the materials.

Pauline Ning pointed out: "When we talk about bioplastics, some people always think about one attribute – biodegradability, which is not true. We should look at the different aspects of the materials, such as the performances or other functions that can bring to the users."

Steve Davies also shared his observation on the acceptance of bioplastics in Asia. "Every year, there are stronger demands for bioplastics in Asia, in particularly in China," he said.

"A good example at the show is that 3 machinery companies, for the first time this year, are running demonstrations with Ingeo. There is an evidential proof point - In the past, they would run a PET thermoforming demonstration; Now, they are running PET and Ingeo because the market is now looking for compostable solutions," he explained.

For example, Italy-based machinery maker AMUT has collaborated with NatureWorks for extrusion and thermoforming food contact approved processes. At the fairgrounds, AMUT-COMI ran the ACF model thermoforming machine with Ingeo sheet manufactured by COEXPAN.

Since 2015, NatureWorks has partnered with the Ellen MacArthur Foundation to support the foundation's New Plastics Economy initiative, which is a comprehensive strategy for creating a global plastics system based on circular economy principles.

"We are proud of our role in the circular economy," said Rich Altice. "Plastics bring enormous value and utility to the world. There isn't just one solution to the challenges that the world is facing around plastics. So we think our role is to bring advanced bio-based materials to the manufacturers to reduce impact on the environment."

"In our opinion, a plastic ban cannot solve all the problems. We should figure out how to solve the problem with innovative technologies and fundamental redesign of packaging formats," he concluded.

Source : CPRJ Editorial Team (SC)

STRIVING FOR BALANCE BETWEEN RECYCLABILITY AND FUNCTIONALITY

In the packaging sector, packaging films are enjoying continuous growth as flexible packaging is a more efficient type of packaging.

"The trend in packaging sector is moving from rigid towards flexible packaging, as flexible packaging uses less material for production, as well as less space and energy consumption for logistics," Reinhard Priller, Sales Director of Brückner Maschinenbau, explained.

However, challenge comes along with opportunity. At present, film manufacturers are striving for the balance between higher recyclability and better functionality, for example, the barrier function.

According to Reinhard Priller, Brückner has already invested in R&D facilities for the next development of flexible packaging films production in the earlier stage. The company has the know-how and flexibility, and has discussed with customers about their needs, and is working on that direction to deal with the challenge.

He believes that both high recyclability and good functionality can be achieved, and one of the solutions will be laminated and coated films.

Brückner Maschinenbau is one of the market leaders for film stretching lines. In addition to packaging film markets, the company also specializes in the technical film markets, such as the battery separator films, optical films, etc.

Reinhard Priller remarked that photovoltaic systems, electric vehicles and folded display of smart phones are the growth drivers of technical films.

Regarding product development, he mentioned that Brückner continues to help customers reducing costs and increasing efficiency, and the new control and operation system has already successfully implemented on the first production line. In the next step, the company will study how to make use of the big data extracted.

Focus on specialty films and circular economy

At CHINAPLAS 2019, Brückner Maschinenbau presented their latest stretching lines for technical and specialty films as well as solutions for better recyclable packaging films.

Brückner's industrial lines for battery separator film production are already installed worldwide and especially in China. Various solutions and processes were shown at the company booth, including lines and components for the wet process and patented EVAPORE process.

Meanwhile, the unique LISIM simultaneous process, applied to wet battery separator film production, was also introduced. Other show highlights for battery separator film production were powerful and efficient sequential & simultaneous lines up to 5.5m working width for the wet process, as well as the patented MD relax chain with motorized inline adjustment for low MD shrinkage films.

Brückner adopts a strong approach to recyclability and circular economy. At the show, the company presented a new BOPE line concept with a huge potential for the flexible packaging markets and the upcoming circular economy.

As said, the line provides easy sorting and recycling, and new mono-material solutions as substitution of not recyclable multilayer structures and material composites. In addition, the films are with excellent mechanical and optical properties.

The new Brückner inline coating system, a cooperation with the German coating specialist Kroenert, was also introduced. It was developed for manufacturing of mono-material high barrier films which are better sortable and recyclable.

The system also reduces further converting/ laminating steps, and is available as retrofit for all existing production lines through Brückner Servtec.

Source : CPRJ Editorial Team (VC)

CONSUMERS VIEW PLASTIC AS LEAST ENVIRONMENTALLY FRIENDLY FORM OF PACKAGING, SURVEY SAYS

A survey of 6,000 consumers in 11 countries conducted by Accenture, a global professional services company headquartered in Dublin, Ireland, gives the plastics industry a glimpse into its negative public image. The survey was previewed on June 6 at the American Chemistry Council (ACC) Annual Meeting.

The survey found that 83% of respondents believe it's important or extremely important for companies to design products that are meant to be reused or recycled. Nearly three-quarters (72%) of respondents said they currently buy more environmentally friendly products than they did five years ago, and 81% said they expect to buy more over the next five years.

"The shift in consumer buying, with more consumers willing to pay extra for environmentally friendly products, reinforces the need for companies to increase their commitment to responsible business practices," said Jessica Long, Managing Director, Accenture Strategy. "Companies across industries have started to lead with purpose, including embracing the circular economy as a greater opportunity to drive growth and competitive agility."

While more than half of consumers surveyed said they would pay more for sustainable products designed to be reused or recycled, it was no surprise that quality and price remain the top consumer concerns. Many consumer surveys over the past decade have reported that while consumers say they would pay more for "eco-friendly" or sustainable products,

they tend to vote with their wallets when they shop, hence, the importance of price (84%).

Quality and price were bigger concerns for consumers than health and safety (49%) in choosing what to buy. Low in consumer considerations was "environmental impact" at just 37%.

That last statistic is quite telling: Consumers don't really understand the environmental impact of various packaging materials, such as plastic versus paper or other "alternative" packaging materials. Perhaps that is why plastics are perceived to be the least environmentally friendly type of packaging, as cited by 77% of the survey respondents. Paper products were perceived to be the most environmentally friendly by 55% of respondents.

Perception is everything, so it is said. Obviously, it even trumps science in the eyes of consumers. This survey is more evidence that the plastics industry isn't doing a very good job of getting the word out to consumers about the benefits of plastic, which has been proven to be more eco-friendly than paper alternatives.

It's sad that the nay-sayers who see plastics as an existential threat to the planet cannot see the benefits of this material and continue to speak of plastic as "dangerous," thus driving public perception. For example, an article in an online issue of National Geographic had a headline that read, "Dollar stores moving to pull dangerous plastics from shelves." The article goes on to say that Dollar Tree, one of the largest dollar-store chains, signed on to a program that will help it get rid of plastic products that contain "harmful chemicals, including the plastic additives bisphenol A (BPA) and phthalates."

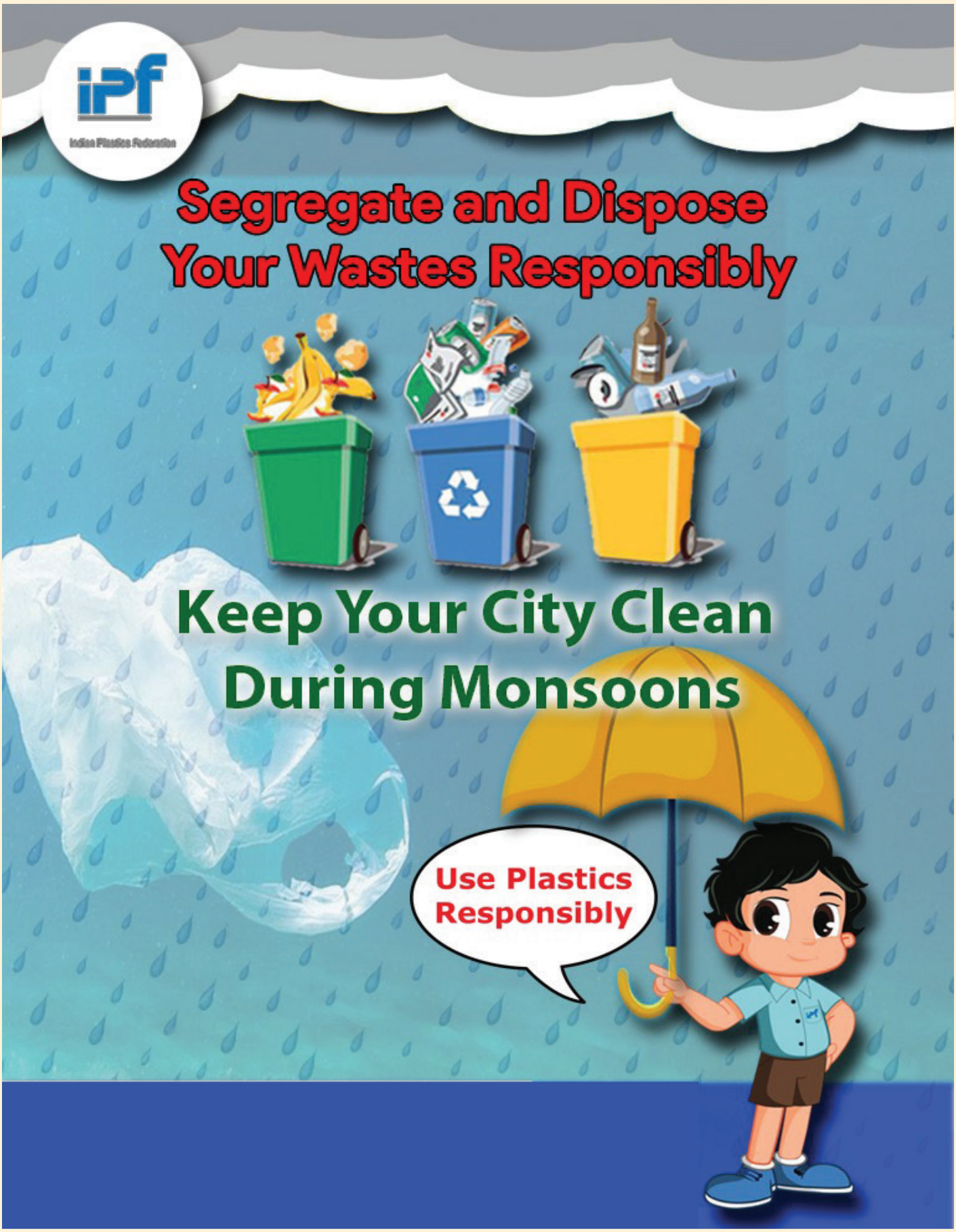
The article quotes a project manager from the Investor Environmental Health Network: "Dollar Tree is a case where we felt it was also an issue of social justice," said Alexandra McPherson. "Are people who can't afford organic products inadvertently being sold the most toxic ones?"

The National Geographic article goes to great lengths to point out all of the products stocked at dollar stores, which the article claims serve mostly poor people in small rural towns, that contain phthalates including DEHP and DIBP. The article claims that in 2014 an organization called the Campaign for Healthier Solutions collected more than 160 dollar-store products and found that 81% of these tested hazardous. The writer calls out the numerous diseases that these "hidden toxic chemicals" cause.

Gee, it's no wonder that consumers have a negative perception of plastics when articles like this one in National Geographic use unscientifically proven scare tactics. To be journalistically correct, they could have at least added some of the recent reserarch by the FDA stating unequivocally that BPA and phthalates have not been found to harm humans.

People need to be shown the full picture—they need scientific facts . . . if they can handle the facts!

Source : Clare Goldsberry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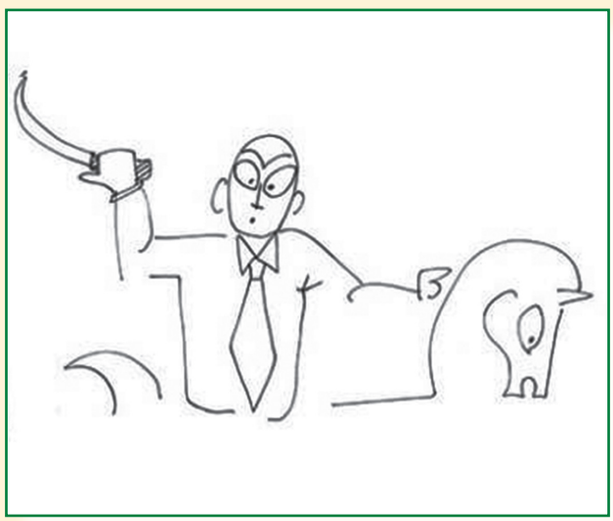
Keep Your City Clean
During Monsoons
Use Plastics
Responsibly

SHIVA THE CORPORATE DESTROYER OR KALKI?

Dr. Devdutt Pattanaik

Kalki, the tenth avatar of Vishnu, is very popular amongst young people, who visualise him as an Avenger, part of a cosmic end game. He is visualised as riding a white horse, brandishing a fiery sword, cutting down people. The story about Kalki is not very wellknown; but the general belief is that he destroys bad people and restores the good world order, very much like a superhero. However, that is not the case.

The tenth avatar of Vishnu is seen as the form before Pralaya. He is mentioned first in Mahabharata and is linked to Parashurama, who kills unrighteous kings. His story is elaborated primarily in the Puranas and shows influence of Zoroastrian and Christian messianic ideas. But there is another destroyer in Hindu mythology and that is Shiva. Shiva is part of the Hindu trinity, and in popular understand these three forms of divine are responsible for Generating, Operating and Destroying the world (hence English acronym GOD, as per whatsapp forwards).



But is there a difference between Shiva, the Destroyer, and Kalki, the Destroyer? The confusion arises because Kalki is supposed to be a form of Vishnu also known as the Operator or preserver or sustainer. An understanding of this difference helps us understand the value of destruction in life.

In Hindu mythology, Brahma creates the world; therefore, he is associated with desire. He is visualised as a priest. Desire is expressed as and when the ritual performer expresses his sankalp, or intention, for conducting the ritual. While Shiva rejects rituals, he also rejects all things material. He wants nothing and so expresses no Sankalp. He is visualised as a hermit, as someone who destroys desire, and walks away from the life of a householder. He will not create an organisation. He does not see the value of creating a world that ultimately indulges the ego. Vishnu, on the other hand, is the preserver of culture, rituals and social structure, thereby restoring order. His actions attract Lakshmi (affluence and abundance). He places desire in context, and does not let it go out of hand.

The Hindu Trinity is not involved with nature (prakriti) which is visualised as the Goddess, hence eternal; they are creating, sustaining or rejecting culture (sanskriti). That is why destroyer Shiva who has no desires is visualised as a hermit smeared with ash, and the preserver Vishnu who does not reject desire is visualised as householder, with silk and sandal paste.

Why then does Vishnu destroy things? He destroys things, in the form of Kalki, when people stop respecting dharma, in other words, when humans behave like animals: territorial and dominating, more interested in being alphas than helping the omega. When people become dominating and territorial, the existing society needs to be destroyed and a new structure must be formed. We see Vishnu struggling to maintain the social order, in various forms: as Parashurama, Ram, and Krishna. But when everything fails the entire system, the entire edifice of the structure of society must be destroyed, and Vishnu shall do this as Kalki.

Organisations are built by people who have the desire to achieve something. This desire makes them Brahma, the creator of the organisation, but when their desire ceases and they let go of the organisation and they become Shiva, the destroyer.

Many leaders are so busy creating and desiring, they do not often wish to let go. This is the reason they don't delegate, they don't retire and they do not allow companies to move on without them. These leaders cling to their Brahma role, which creates chaos and disorder, necessitating the arrival of a Kalki, who, to save the organisation, needs to get rid of such leaders, and change the old order to a new system.

Shiva builds not organisations. He inspires leaders to let go of their attachment to organisations and retire, having realised the futility of ambition and success in the larger context. A Kalki on the other hand gets the old order forcibly dismantled to usher in a new era. He marks the transition from Kali-yuga (decline phase of organisation) through Pralaya (turmoil of restructuring) to Krita-yuga (golden phase of resurgent organisation).

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