



PLEXCONCIL - The Plastics Export Promotion Council

PLEXCONNECT[®]

Edition 58, April 2024

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(Dr.) DD Kale, Pg-08**

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Message From The

CHAIRMAN'S DESK

As we bid farewell to the financial year ending March 31st, anticipation mounts for the forthcoming export figures of FY 2023-24. However, amidst this eagerness, our attention is firmly fixed on what lies ahead: PLEXCONNECT 2024, now merely two months away. The council pulsates with fervent excitement as we gear up for this pivotal event in the plastics industry.

Promotions and preparations are proceeding in top gear now and the council has roadshows planned for the coming month in key manufacturing clusters to not just create awareness about PLEXCONNECT 2024, but moreover highlight the vast benefits within exports, especially for the MSME segment.

Presently, over 650 international buyers from 65+ countries have already registered for the RBSM, and we are confident that we will meet our target of 900 buyers for the planned RBSM. We have once again been receiving active support from Indian embassies and high commissions who have been promoting Indian plastics among buyers in their respective regions/ countries.

Buyers from diverse regions including Africa, South Asia, ASEAN, Latin America (notably Brazil, Guatemala, Chile), CIS (Russia), WANA (Egypt), Europe (United Kingdom), and North America (United States) have shown keen interest in engaging with Indian exporters of plastic products. Successful meetings with Indian Consulates in the USA have paved the way for outreach to large format stores like Walmart, Target, and IKEA, expected to visit PLEXCONNECT 2024 for sourcing. Brazil and Chile are emerging as significant buyers of medical items, toothbrushes, fishing gear, and packaging products made of plastics from India. Egypt's import of polymers from India suggests a demand for polymer producers at the event. With the recent India-EFTA Trade and Economic Partnership Agreement, efforts are being intensified to engage with buyers from Norway, India's primary export destination within the EFTA block, with a focus on fishing gear, flexible packaging products, and decorative laminates. These endeavours align with our broader strategy to achieve USD 25 billion in plastic exports by 2027.

Meanwhile, during February 2024, India exported plastics worth USD 997 million, an increase of 14.3% from USD 872 million in February 2023. Cumulative value of plastics export during April 2023 – February 2024 was USD 10,433 million as against USD 10,911 million during the same period last year, registering a decline of 4.4%.

In other news, none of us are strangers to the growing concerns globally over plastics pollution. To reduce the impact on the environment, the UNEP have formed Intergovernmental negotiating committee to develop an International legally binding instrument on plastic pollution including marine environment. The policy quint-essentially believes in turning of the tap!!! But is that the solution??? In this issue, Prof. (Dr.) DD Kale makes very poignant observations and comments on where the problem really lies, the shortsightedness of policy makers and possible solutions. Read this detailed article to know more.

We also interviewed Mukesh Agarwal, COO & Director of RaRean Fluid Tech about the immense prospects of pipes and fittings in water management infrastructure, agriculture, gas pipelines and more. He talks about GOI initiatives such as Jal Jeevan and AMRUT that are aimed to enhance water distribution and promote infra development in the country and why amidst such initiatives, QUALITY prevails as non-compliance can have rather far-reaching impact.

Our focus country in this month is Norway while our Product of the Month is Tents made of Synthetic Fibres. All this is in addition to news and views from around the world.

We trust that your stall at PLEXCONNECT 2024 has been secured, as it stands as the premier export-focused platform in the industry today. If not, our dedicated team stands ready to assist you promptly.

Until then, we look forward to staying connected.

Warm Regards,

Hemant Minocha
Chairman

Meeting with Director, Directorate of Export Promotion & Marketing (DEPM), Govt. of Odisha – 09 February 2024 | Eastern Region

Regional Director (East) met Shri Bimalendu Ray, OAS (SS), Director, EP&M, Odisha on 9th Feb 2024 in order to discuss the promotion of plastic export from the state of Odisha and also setting up state pavilion at PLEXCONNECT Show.

Kalinga Maritime Expo 2024, Cuttack, Odisha - 09-13 February 2024 | Eastern Region

Regional Director (East) visited the above industrial expo in order to promote the PLEXCONNECT show and also the Council's Membership.

Meeting with Kompass to source importers database | Eastern Region

With regard to invite potential buyers during PLEXCONNECT show, a meeting organised with Kompass in order to explore their database. RD (East) attended the online meeting.

Factory Visit to Ambattur Industrial Estate - 09 February 2024 | Southern Region

The R.O. Chennai officials had a meeting with M/s. Vibrant Colourtech Pvt Ltd and confirmed their participation at Plexconnect 2024 during the factory visit to Ambattur Industrial Estate.

CPSE Level Vendor Development Programme Cum Exhibition - 12 & 13 February 2024 at MSME-DFO | Western Region

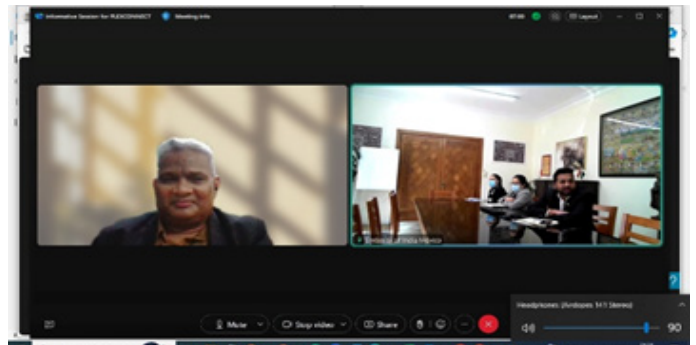
Program of CPSE LEVEL VENDOR DEVELOPMENT PROGRAMME CUM EXHIBITION ON 12th & 13th FEBRUARY, 2024 At MSME-DFO, Mumbai wherein Plexconcil representative had given presentation on Plexconcil activities for promoting export of Plastic products and about Plexconnect 2024.

Gujarat Chamber of Commerce and Industry- Plastic Committee Meeting - 13 February 2024 | Western Region

Gujarat Chamber of Commerce & Industry (GCCI) organized the Plastic committee meeting on 13th February 2024 at GCCI Meeting room, Ahmedabad. Agenda for the meeting was to discuss on challenges faced by Plastic industry of Gujarat and deliberate on solutions for the betterment of the Plastic industry. As a part of the committee, Mr Naman Marjadi, Assistant Director, Plexconcil attended the Meeting and gave relevant inputs to the committee.



VC Meeting to Promote PLEXCONNECT 2024 with Mexico Companies - 16 February 2024 | Southern Region



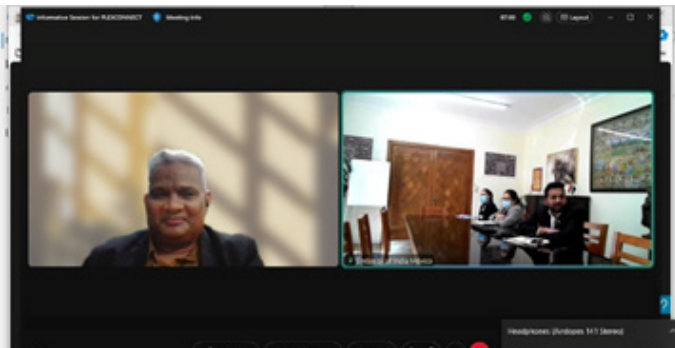
The Embassy of India, Mexico has organized a VC meeting to promote PLEXCONNECT 2024 on 16TH Feb 2024 amongst the Mexican Companies, to mount a delegation of Mexican companies to visit Plexconnect 2024 and participate in the planned Reverse Buyer Seller Meeting (RBSM) during the Plexconnect 2024 show at Mumbai.

Meeting with VTPC – Govt. of Karnataka - 19 February 2024 | Southern Region

Mr. Ruban Hobday, Regional Director-South met with the officials of VTPC, Govt of Karnataka on 19th February to firm up the proposal to host Karnataka State Pavilion in the 2nd Edition of the Export Focused Exhibition for Plastic Industry in India – THE PLEXCONNECT 2024.

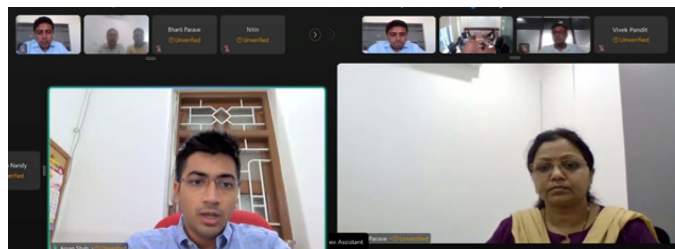
► Council Activities

PLEXCONCIL – VC MEETING WITH ACIPLAST Costa Rica on PLEXCONNECT 2024 - 20 February 2024 | Southern Region



Plexconcil under the guidance of Embassy of India, Panama organised for a VC Meeting with ACIPLAST, Costa Rica with regard to organising delegation visit of its Members for Plexconnect 2024 at Mumbai.

PLEXCONNECT- Webinar on Payment Mechanisms in Rupee-Ruble Bilateral Trade - 23 February 2024 | Western Region



PLEXCONCIL organized a Webinar on Payment Mechanisms in Rupee-Ruble Bilateral Trade on 23rd February 2024 with SBER Bank. The objective of this webinar was to understand payment mechanism in Rupee-Ruble Bilateral Trade in case of trade between India and Russia. Welcome address of the webinar was given by Mr. Aryan Shah, Member of Youth Committee, PLEXCONCIL and Member, Social Media Committee of Plexconnect 2024. Mr. Deepankar Mehta, Director, SBER Bank gave presentation and explained about Payment Mechanisms in Rupee-Ruble Bilateral Trade and RBI compliance for knocking off bills in EDPMS portal. Q & A session was moderated by Ms Bharti Parave, Assistant Director, Plexconcil. Webinar ended with vote of Thanks by Mr Naman Marjadi, Assistant Director, Plexconcil.

Job Fair organised by Govt. of Tamil Nadu - 24 February 2024 | Southern Region

The Govt of Tamil Nadu through its Employment & Training Department have invited the Plexconcil to be part of the Job Fair to be organised on 24-02-24 in Queen Mary's College, Chennai 600 004. More than 2000 candidates with various qualifications (SSLC/HSC passed, Graduates, ITI, Diploma, Engineering, others) participated in this job fair. Council participated in this job fair to recruit interns for Plexconnect 2024 and few Member companies also participated in this job fair for their recruitments.

Meeting with FaMe TN, Govt of Tamil Nadu - 28 February 2024 | Southern Region

The R.O. Chennai officials had a meeting with the GM of FaMe TN, Govt. of Tamil Nadu about Tamil Nadu Govt. Pavilion participation at Plexconnect 2024, where the FaMe TN has agreed to given in principle approval for 10 MSME companies to participate under State MSME Policy.

Factory Visit to Thandalam Cluster - 29 February 2024 | Southern Region

The R.O. Chennai officials had a meeting with M/s. Shibaoura Machines to firm up their participation at Plexconnect 2024 during the cluster visit to Thandalam, Chennai Suburbs.

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Professor (Dr.) D.D.Kale

UNEP Treaty on Plastics Pollution

The United Nations, under the UNEP (United Nations Environmental Program) have formed Intergovernmental negotiating committee to develop an International legally binding instrument on plastic pollution including marine environment. This action is based upon the serious concern over the rapidly increasing plastic pollution including the 'threat' due to microplastics. It is noted by UN that this type of pollution is transborder and hence every nation should contribute to the elimination of pollution due to plastics. In this connection, UNEP has prepared the draft for action plan with a 'scientific approach' to eliminate plastic pollution.

The draft proposal on plastic pollution will be legally binding to all the nations which are members of the treaty. Since India has accepted to be a member, the resolutions will be legally binding.



UNEP policy wants that each party shall not allow its level of production and supply of primary plastic polymers to exceed the reduction target specified and also should not allow the level of production of monomers and the chemicals used in making different additives such as antioxidants, pigments, plasticizers, lubricants etc. under the pretext of elimination of chemical pollution.



In this article, Professor (Dr.) DD Kale talks about the on-ground challenges to the implementation of the UNEP Policy and impact on the Indian plastics value chain.

Professor (Dr.) D. D. Kale, retired in 2005 after 30 years at the University of Mumbai, where he served as Head of Department and professor of Polymer Technology. He earned his Ph.D. from the University of Salford, UK, and conducted post-doctoral research at the University of Delaware, USA. Throughout his career, he supervised 28 Ph.D. and 65 Master's students in areas including plastic processing, rheology, recycling, and fluid flow. He has authored over 100 papers, holds one patent, and has presented extensively at international and national conferences. Professor Kale served as a Visiting Professor in South Korea and contributed to defining single-use plastics through DCPC. He also advises the Government of Maharashtra on environmental issues and consults for various industries. Currently, he serves as the Honorary Chancellor of Polymer Update Academy, focusing on online education for industry personnel.

(excerpts)

What are the enforcement mechanisms being considered under the UNEP international legally binding instrument to end plastics pollution?

The enforcement mechanisms cannot be uniform as every country has different lifestyle and objectives. The principle of polluter will pay looks good on paper but is difficult to implement. Additionally, EPR and full life cycle of plastic products is also suggested. It is also suggested to 'reduce' the use of plastic products by considering other alternatives, recycle the used plastic products as "sustainable" method or policy. The reuse of existing plastic product has also been suggested. Further, it is suggested to develop "sustainable" product design.

What does this signify for Indian plastics processing industry and exports? Which sectors/ products are likely to be most impacted (quality, shelf life, pilferage, performance, etc)?

This policy will affect Indian Plastic Industry significantly. It will impart a significant blow to the India's march towards sustainable economic development.

The various products made from plastics can be broadly divided into short-life cycle (less than 12 months) and long-life cycle (more than 12 months) products. This limit of 12 months is arbitrary to some extent. The short life cycle products are mainly used in packaging. This contributes almost 50 to 60 % of all plastics. In India, it is almost 10 million tons annually. The packed food prevents the losses of food, agro-products like fruit, vegetables or grains. It prevents the early ripening of fruits. The packaging also helps to provide protection of packed goods from dust or moisture.



As a matter of fact, the packaging provides safety and hygiene of the packed good till it reaches the consumer. If the production of primary polymers is not allowed to increase, it would mean India will have to import the base polymers. Similarly, all the additives and pigments etc. will have to be imported. Since the capping is global, there will be high risk of smuggling or black marketing or even the hoarding of stocks at the warehouses or at the stockists' places. The stability of the market will be totally disturbed and the free market will collapse.

There will be no new players as the size of market will become stagnant. The import of finished goods may get a backdoor entry. The employment in the processing industry will be seriously reduced. It will influence the Government revenues adversely and it will be permanent loss and disorder. This will happen in almost every other country.

India needs imports close to 6 to 7 million tons of plastic for the healthcare, agricultural, infra structure and packaging. The imports will increase with time. It is estimated that India may need a cracker every year for self-sufficiency. Some plans are already made for the additional crackers. All the plans for future refineries and plastic production will go haywire if the capping on production is to be implemented. This is a serious situation.

The long life-cycle products (such as pipes, tubings, crates, automobiles etc.) go for water – pipes, construction, defense, transport, communications, sports goods, entertainment industry and in many other important applications. All these industries will collapse for the same reasons outlined earlier. These industries will not be able to expand although they do not contribute anything to the "transborder pollution" for which so much concern is expressed.



The products alternative to plastic, are more harmful to India and also to all the countries as this is not a sustainable solution. The carbon foot print of bio degradable polymers is more harmful than regular plastics being used today. The raw materials for many bio degradable products are based on sources which are food products. India cannot simply afford to use bio degradable plastics and cause shortage of food.

This policy will almost kill the manufacturers of processing machinery. All the small and medium scale processors will have to close their business. The countries which have surplus plastic production will start manufacturing the end products such as films, extruded profiles and injection molded or thermoformed products. Clearly, these will be expensive and there would be a global monopoly. In the supply of plastic raw materials and finished goods.

The number of students pursuing, Polymer Engineering, Polymer Science and Chemical Engineering and Chemistry will not opt for these courses and universities across the globe will have hard times. This may affect the economy of many Universities in developed countries also.

The new design of products or carefully using the recycled plastic, needs research and validation in the market. Any such product development and its introduction in to market needs very long times if product is related to food or drug applications.

No successful and satisfactory implementation of EPR has been achieved by any country. In India, many repro-



cessing units are in unorganized sector. It will take more time to improve their technology and train them for the EPR.

Since there will be restriction on chemicals, the industry manufacturing products which are not used by the plastics, will also get affected. Every molecule of ethylene or propylene is not used for the polymerization or for the additives. There are several agro-chemicals, electronic goods which use several of petrochemicals derived for monomers which may be also suitable for polymerization. Should this industry be closed since there will be capping on these basic chemicals?

Such capping on Plastics and Chemicals will result in global unrest, economic slowdown and social disturbances.

What are the challenges to implementation of the proposed mechanism?

The proposed mechanism is totally irrational and most non-scientific. I do not see any relevance between the elimination of “plastic pollution” and capping the present level of production of plastics or concerned petrochemicals. There is no scientific data or any evidence to prove that plastic pollution will reduce if present use of

plastic remains stagnant. There is no logic between the capping of plastic production and elimination of ‘plastic pollution’.

The principle of polluter should pay is right and looks good on paper. Let us understand this more. Suppose the tourists visit several countries, buy some items and discard it in some other country and the litter leaks into sea and gets washed away. The product may be produced in country A, used by people from countries B, C, D etc. and discarded in countries E, F or G. The leaked litter may be seen near the oceans of countries H, J or K. It will be very difficult to find the polluter. This is what is happening many times.

Let us first look at the plastic industry in general. The manufacturing of plastics like PE, PP, PVC, Polystyrene,



Polyesters or Nylons is practiced under the well-developed international standards of environment and safety. There is no pollution at any stage. The polymers are stored and transported and there is no pollution unless the trucks or containers use inefficient fuel or engines. The manufacturing of products such as pipes, films, trays, injection molded parts etc. also do not cause any pollution locally or transborder. All these are mechanical operations. There are no chemical fumes or pollutants entering the air or water streams up to this stage.

The packed product reaches the consumer and till then there is no pollution. The consumer discards it and yet there is no pollution. After the plastic product is discarded, it may go for land fill, incineration with or without power generation, (as practiced in few countries) or it may be recycled.

The plastic litter creates the main problem. The plastic waste found in seas, rivers, in jungles etc. should be definitely eliminated. Plastic product lying in open for several weeks or months, does not cause any pollution as it does not degrade (Non degradability is accepted and used to condemn plastics by almost every lobby). The UNEP has seriously goofed the pollution with waste management or litter. Does the plastic product travels



to sea on its own? The end user discards it and creates a waste which is not managed properly. The generation of microplastics from the waste plastic products has not been fully understood. The microplastics have been generated from wood, paper, cotton fabric, leather, automotive tires and so on. The effects of microfibers from synthetic polymers can be a serious issue although the ill effects have not been evaluated completely as pointed out in scientific and medical journals. This needs to be studied globally. The microplastics are generated mainly due to wear and tear. A proper study, of generation of microplastics from littered plastic waste, perhaps, has not been carried out.

EPR, new product design and even the full life cycle analysis are not uniform. The results and conclusions will change from country to country. A proper global platform should be created first to discuss these issues before any policy can be formed.

I wonder whether the team UNEP has consulted or included polymer scientists associated with waste management while framing the policy.

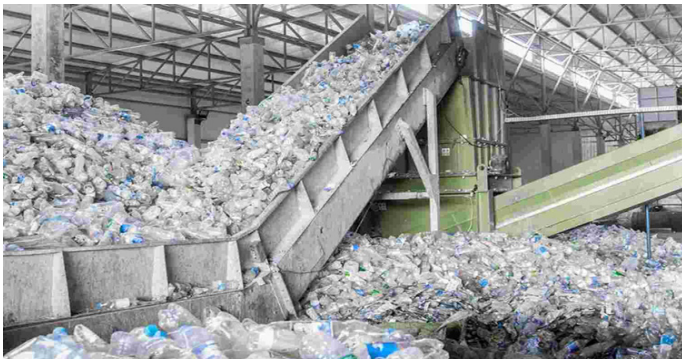
In your opinion, is the Indian processing industry doing enough to tackle pollution? Is the regulatory framework effective enough to address and resolve plastics pollution in the country?

The two questions need to be taken together. The reason being industry will blame government agencies for not managing the waste and the government agencies will blame the plastic industry for the pollution. As I said, the issue is of waste management. We should realize that India is the first country to implement recycling of thermoplastic materials on industrial scale since 1980. The reason was purely economical and not ecological. This industry has hubs around almost every big city or mega cities in India. The entire supply chain of waste pickers, waste sorters, stockists (kabadiwalas) and re-processors has been well established for simple waste products. The amount of recycling is close to few million tons per annum. This has to be appreciated. However, there is no scientific input into this activity. There is no connection between the organized sector

with this big yet unorganized sector. The upgradation and more scientific methods have not been adapted. There is certainly no interaction between scientific community and the waste management system owned by the local Governments. The regulatory bodies have a legal structure which may be preventing their actions in waste management.

A proper collection system needs to be developed first and that too on priority basis. The local Government bodies should first increase the collection efficiency. Today, the collection efficiency could be as low as 5 % in small villages while in big cities it could be around 60 %. There should be a time bound program for increasing the waste collection efficiency. The collected plastic waste has to be segregated and treated either to recycle or subject to end – of – life solutions. The plastic collected at remote place needs to be stored and transported to recycling facilities away from such remote places where the plastic waste is generated. The amounts generated daily may not be sufficient for effective management or recycling. This will involve employing man-power and the entire cost has to be estimated. In India there may be more than 1 million grampanchayats and in addition many more talukas. The collection and processing the waste at these places needs to be improved.

Increased cost of collection, segregation, storing and transportation to the recycling facilities will have to be considered for the plastic industry engaged in manufacturing and processing and packaging operations. All the stake holders till the distributors need to be considered for the cost estimate of this kind. This will be obviously different for different countries. Management schools may be involved in such studies. 'A true cost' of plastic waste management and implementation needs to be evaluated periodically. How to collect this cost can be decided by the industry and Government together. Professional bodies can contribute significantly. In India, the following model may be considered. Step 1: Set up the collection mechanism in cities, subarbans,



talukas etc. (Municipal corporations, municipalities, taluka centres and grampanchayats or similar bodies). In big or mega cities, the collection should be organized by municipal corporations, municipalities or similar bodies, into 3 or 4 wards together where the plastic waste could be separated.

In small and remote places such facilities need to be created which will not allow any litter. This can be outsourced by tendering system. The recyclable plastic can be sold to reprocessors by contract system. This may generate some revenue. The waste from the villages and remote places needs to be stored and transported to appropriate place for segregation and recycling. The total cost difference should be considered as cost of environment which can be collected in the form of tax or any suitable manner. If there is surplus money, it should go to appropriate Government body. The model can be improved with the experience. The non-recyclable plastic waste can be incinerated with or without power generation.

What are possible alternate solutions to meet not just environmental goals, but also avoid widespread

socio-economic impact on the plastics industries?

A working group should be established by the industry associations to regularly address the issues of waste management as it is almost a question of survival. Awareness programs at many levels have to be conducted for many years very frequently. The associations should be proactive rather than reacting as and when some regulations are implied. A general awareness in public as well as concerned industry stakeholders has to be established. If educational institutes cannot generate the required scientific inputs, the industry associations can certainly establish such centres for developing sustainable methods or solutions. Essentially 'vendor development' approach or the application centres approach needs to be taken up. The action has to be seen. The government authorities will always be cooperative due to pressure from public. The issue to address is proper waste management for zero waste.

The question is who pollutes: plastics or people?

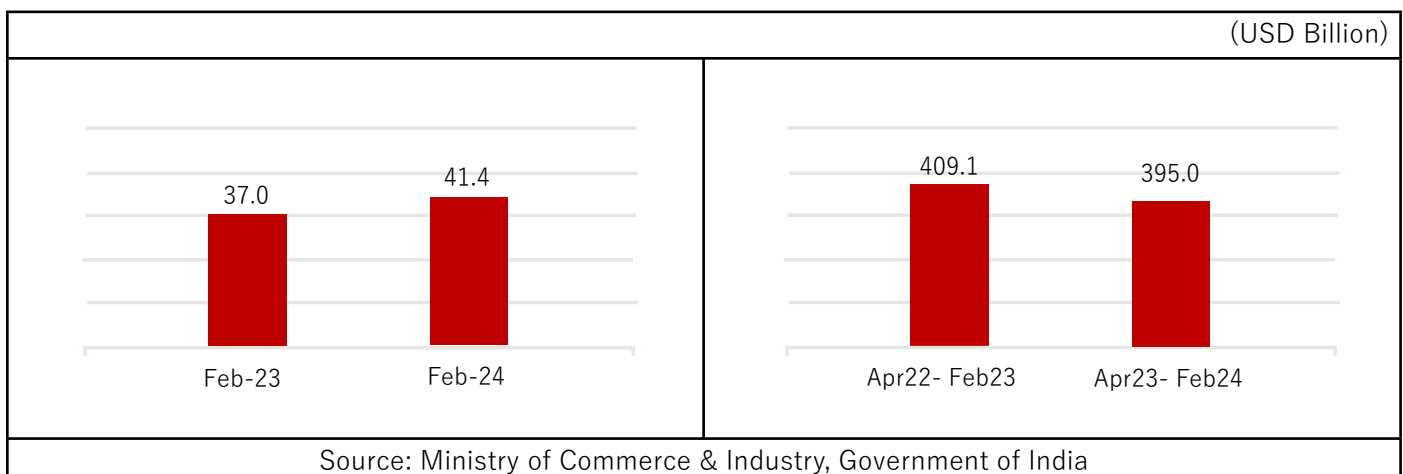


Export Performance – February 2024

TREND IN OVERALL EXPORTS

India reported merchandise exports of USD 41.4 billion in February 2024, an increase of 11.9% from USD 37.0 billion in February 2023. Cumulative value of merchandise exports during April 2023 – February 2024 was USD 395.0 billion as against USD 409.1 billion during the same period last year, reflecting a decline of 3.5%.

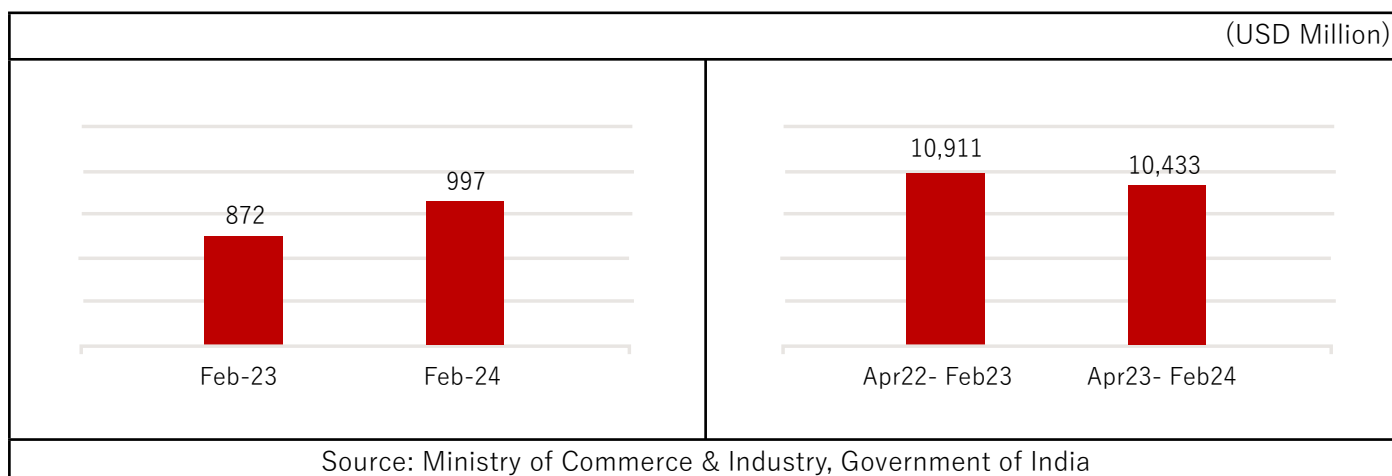
Exhibit 1: Trend in overall merchandise exports from India



TREND IN PLASTICS EXPORT

During February 2024, India exported plastics worth USD 997 million, an increase of 14.3% from USD 872 million in February 2023. Cumulative value of plastics export during April 2023 – February 2024 was USD 10,433 million as against USD 10,911 million during the same period last year, registering a decline of 4.4%.

Exhibit 2: Trend in plastics export by India



PLASTICS EXPORT, BY PANEL

In the month of February 2024, significant export growth was witnessed across majority of the product panels such as Plastic raw materials; Plastic films and sheets; FIBC, Woven sacks, Woven fabrics, Tarpaulin; Floorcoverings, leathercloth & laminates; Packaging items - flexible, rigid; FRP & Composites; Cordage, fishnets & monofilaments; Medical items of plastics; and Plastic pipes & fittings. However, panels like Writing instruments & stationery; Consumer & houseware products; Human hair & related products; and Miscellaneous products & items nes faced challenges in achieving growth during the same period.

Exhibit 3: Panel-wise % growth in plastics export by India

Panel	Feb-23	Feb-24	Growth	Apr 22- Feb 23	Apr 23- Feb 24	Growth
	(USD Mn)	(USD Mn)	(%)	(USD Mn)	(USD Mn)	(%)
Consumer & houseware products	65.7	63.8	-2.9%	680.9	757.8	+11.3%
Cordage, fishnets & monofilaments	19.2	24.9	+29.7%	247.2	233.7	-5.5%
FIBC, woven sacks, woven fabrics, & tarpaulin	95.7	122.1	+27.5%	1,294.7	1,225.7	-5.3%
Floorcoverings, leathercloth & laminates	47.2	60.1	+27.4%	522.6	625.4	+19.7%
FRP & Composites	35.7	43.9	+23.0%	387.2	440.7	+13.8%
Human hair & related products	58.9	51.2	-13.0%	608.0	685.1	+12.7%
Medical items of plastics	40.0	44.8	+12.0%	448.6	488.7	+8.9%
Miscellaneous products & items nes	78.1	53.9	-31.0%	942.8	649.6	-31.1%
Packaging items - flexible, rigid	43.5	55.4	+27.3%	572.8	571.5	-0.2%
Plastic films & sheets	133.8	163.1	+21.9%	1,663.5	1,573.8	-5.4%
Plastic pipes & fittings	21.5	25.2	+17.1%	267.0	259.7	-2.7%
Plastic raw materials	211.8	269.5	+27.3%	3,033.9	2,691.6	-11.3%
Writing instruments & stationery	21.1	19.1	-9.8%	241.9	229.4	-5.2%
	872.2	996.9	+14.3%	10,911.2	10,432.7	-4.4%

Source: Ministry of Commerce & Industry, Government of India

Exports of **Consumer & houseware products** witnessed a slight decline of 2.9% in February 2024 on account of lower sales of safety headgear (65061090) and tooth brushes of plastics (96032100). In the current year, India's export of tooth brushes has fallen to key destinations including the United States, Brazil, South Korea and Indonesia due to increased competition from Viet Nam.

Exports of **Cordage, fishnets & monofilaments** jumped by 29.7% in February 2024 due to improved sales of twine, cordage, ropes and cables of polyethylene or polypropylene (560749) and made-up fishing nets (560811). It may be noted that India reported its highest-ever monthly export of made-up fishing nets during February 2024. Also, India is likely to close this financial year with record high exports of made-up fishing nets.

In February 2024, the export of **FIBC, woven sacks, woven fabrics, & tarpaulin** showed a positive growth of 27.5% due to higher sales of sacks and bags of plastics (39232990) and flexible intermediate bulk containers (630532).

Export of **Floor coverings, leather cloth & laminates** surged by 27.4% during February 2024 on account of higher sales of floor coverings of polymers of vinyl chloride (391810); decorative laminates (48239019) and textile fabrics impregnated, coated, covered or laminated with plastics (590390). India is likely to close this financial year with record high exports of decorative laminates.

Export of **FRP & Composites** demonstrated a growth of 23.0% during February 2024. This notable increase was due to higher exports of articles of plastics and articles of other materials of heading 3901 to 3914, n.e.s (39269099).

Export of **Human hair & related products** declined by 13.0% in February 2024 on account of lower sales of human hair, dressed, thinned and bleached (67030010) to China which was closed for business due to the Chinese New Year holiday.

Medical items of plastics exports were up by 12.0% in February 2024 due to increase in sales of syringes (90183100); catheters (90183910, 90183920); cannulae (90183930); and blood transfusion apparatus (90189032). India is likely to close this financial year with record high exports of cardiac catheters and blood transfusion apparatus.

Export of **Miscellaneous products & items nes** fell by 31.0% in February 2024 due to lower shipments of optical fibres, optical fibre bundles and cables (90011000).

Packaging items - flexible, rigid export increased by 27.3% on account of higher sales of sacks and bags of plastics (392321); caps and closures of plastics (392350); and other articles for the conveyance or packaging of goods (39239090).

In February 2024, the export of **Plastic films & sheets** was higher by 21.9% due to increased sales of self-adhesive films and sheets of plastics (3919); films and sheets of polymers of propylene (392020); flexible films and sheets of polyethylene terephthalate (39206220); and other sun and dust control films of plastics (39206929).

Export of **Plastic pipes & fittings** increased by 17.1% as higher sales of tubes and pipes of polymers of vinyl chloride (391723); and fittings like joints, elbows and flanges of plastics for pipes (391740) supported the growth. India is likely to close this financial year with record high exports of tubes and pipes of polymers of vinyl chloride.

Plastics raw materials exports moved up by 27.3% in February 2024 due to a rise in sales of polyethylene having a specific gravity of 0.94 or more (390120); linear low-density polyethylene (390140); polypropylene (390210); polyethylene terephthalate (390761, 390769).

Export of **Writing instruments & stationery** declined by 9.8% in February 2024 due to lower sales of ball- point pens (960810).

► Export Performance

Exhibit 4: Details of % change seen in top 50 items of export

HS Code	Description	Apr 22- Feb 23	Apr 23- Feb 24	Growth
		(USD Mn)	(USD Mn)	(%)
63053200	Flexible intermediate bulk containers	792.6	713.4	-10.0%
90011000	Optical fibres, optical fibre bundles and cables	643.4	338.5	-47.4%
39076190	Polyethylene terephthalate: Other primary form	553.7	293.6	-47.0%
67030010	Human hair, dressed, thinned, bleached or otherwise worked	445.6	513.0	+15.1%
39269099	Articles of plastics and articles of other materials of heading 3901 to 3914, n.e.s: Other	380.0	433.3	+14.0%
39232990	Other sacks and bags, incl. cones, of plastics	380.5	389.4	+2.3%
39021000	Polypropylene, in primary forms	327.3	319.2	-2.5%
48239019	Decorative laminates	260.2	279.0	+7.2%
39202020	Plates, sheets, film, foil and strip, of non-cellular polymers of ethylene: Flexible, plain	231.7	184.3	-20.4%
39269080	Articles of plastics and articles of other materials of heading 3901 to 3914, n.e.s: Polypropylene articles, not elsewhere	196.0	193.6	-1.2%
39206220	Plates, sheets, film, foil and strip, of non-cellular polyethylene terephthalate: Flexible, plain	192.0	196.8	+2.5%
39232100	Sacks and bags, incl. cones, of polymers of ethylene	190.7	188.0	-1.4%
39069090	Other acrylic polymers, in primary forms	182.4	189.6	+3.9%
39076990	Polyethylene terephthalate: Other primary form	185.7	128.8	-30.7%
39239090	Articles for the conveyance or packaging of goods, of plastics: Other	159.3	169.5	+6.4%
05010010	Human hair, unworked; whether or not washed or scoured	147.6	161.5	+9.4%
39202090	Plates, sheets, film, foil and strip, of non-cellular polymers of ethylene: Other	140.7	135.4	-3.8%
39046100	Polytetrafluoroethylene, in primary forms	140.8	110.3	-21.7%
90015000	Spectacle lenses of materials other than glass	133.0	160.4	+20.6%
96081019	Ball-point pens	126.0	121.3	-3.7%
90183930	Cannulae	127.6	120.2	-5.8%
39011090	Polyethylene with a specific gravity of < 0,94, in primary forms: Other	112.7	90.6	-19.6%
59039090	Textile fabrics impregnated, coated, covered or laminated with plastics other than polyvinyl chloride or polyurethane: Other	107.1	161.6	+51.0%
56074900	Twine, cordage, ropes and cables of polyethylene or polypropylene	108.8	101.4	-6.8%
39219099	Plates, sheets, film, foil and strip, of plastics, reinforced, laminated, supported or similarly combined with other materials: Other	101.3	109.6	+8.2%
39046990	Other fluoro-polymers of vinyl chloride or of other halogenated olefins, in primary forms	96.0	78.4	-18.3%
96032100	Tooth brushes	90.9	72.4	-20.4%
39219094	Plates, sheets, film, foil and strip, of plastics, reinforced, laminated, supported or similarly combined with other materials: Flexible, metallised	92.2	74.1	-19.6%
54072090	Woven fabrics of strip or the like, of synthetic filament, incl. monofilament of >= 67 decitex and with a cross sectional dimension of <= 1 mm: Other	89.6	98.8	+10.2%

39206919	Plates, sheets, film, foil and strip, of non-cellular polyesters, not reinforced, laminated, supported or similarly combined with other materials: Other	87.7	86.0	-1.9%
39073010	Epoxy resins	88.8	55.8	-37.1%
39206290	Plates, sheets, film, foil and strip, of non-cellular polyethylene terephthalate, not reinforced, laminated, supported or similarly combined with other materials: Other	86.4	69.6	-19.4%
39129090	Other cellulose and chemical derivatives thereof, n.e.s., in primary forms	82.7	93.1	+12.6%
39241090	Other tableware and kitchenware, of plastics	82.8	90.4	+9.2%
39095000	Polyurethanes, in primary forms	82.4	72.0	-12.7%
39199090	Self-adhesive plates, sheets, film, foil, tape, strip and other flat shapes, of plastics, whether or not in rolls > 20 cm wide: Other	79.4	106.1	+33.5%
39140020	Ion-exchangers based on polymers of heading 3901 to 3913, in primary forms	78.4	71.9	-8.4%
39014010	Linear low-density polyethylene	72.5	117.7	+62.4%
39204900	Plates, sheets, film, foil and strip, of non-cellular polymers of vinyl chloride, containing by weight < 6% of plasticisers, not reinforced, laminated, supported or similarly combined with other materials	75.7	70.6	-6.8%
39219096	Plates, sheets, film, foil and strip, of plastics, reinforced, laminated, supported or similarly combined with other materials: Flexible, laminated	74.8	61.0	-18.5%
39119090	Other polysulphides, polysulphones and other polymers and prepolymers produced by chemical synthesis, n.e.s., in primary forms	67.9	86.8	+28.0%
59031090	Other textile fabrics impregnated, coated, covered or laminated with polyvinyl chloride	67.3	66.8	-0.9%
39235010	Stoppers, lids, caps and other closures, of plastics	62.6	61.2	-2.3%
39100090	Silicones in primary forms: Other	62.0	46.9	-24.3%
39249090	Other household articles and toilet articles, of plastics	62.9	60.3	-4.2%
39172390	Rigid tubes, pipes and hoses, and fittings therefor, of polymers of vinyl chloride: Other	61.2	64.5	+5.3%
39201019	Plates, sheets, film, foil and strip, of non-cellular plastics, not reinforced, laminated, supported or similarly combined with other materials: Other	58.3	64.1	+10.1%
39206929	Plates, sheets, film, foil and strip, of non-cellular polyesters, not reinforced, laminated, supported or similarly combined with other materials: Other	60.7	56.7	-6.6%
39019000	Other ethylene-alpha-olefin copolymers, having a specific gravity of less than 0.94	60.8	54.5	-10.5%
39011020	Low density polyethylene	60.5	18.6	-69.2%

Source: Ministry of Commerce & Industry, Government of India



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DCS INTERNATIONAL TRADING COMPANY

Formerly Known as PKS International Company



Top Merchant
Exporter in
Northern Region
2004 to 2021

Awarded as Top Merchant Exporter in "Northern Region" by The PLEXCONCIL (Ministry of Commerce & Industry, Govt. of India) For consecutive 19 years



Top Merchant
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Top Merchant Exporter in "Northern Region" by The PLEXCONCIL (Ministry of Commerce Industry, Govt. of India) for consecutive 19 years



"Top Export Excellence" Award in (Northern Region) by FIEO 2014-2015



"Highest Foreign Exchange Earner" Award in (Northern Region) by FIEO (Ministry of Commerce & Industry Govt. of India) F.Y. 2016-2017

Mr. Prem Kumar Solanki



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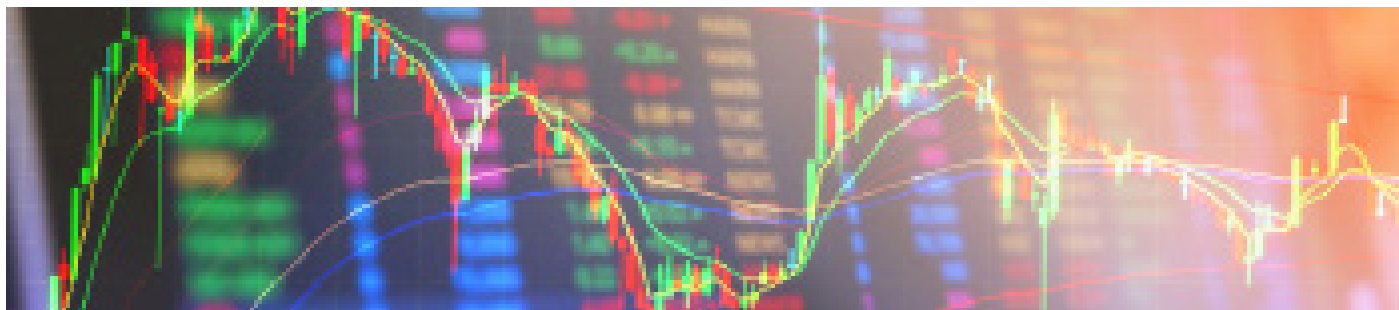
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POLYMER PRICE TRACKER (DOMESTIC MARKET) FEBRUARY 2024

High Density Polyethylene (HDPE)			<ul style="list-style-type: none"> • HDPE prices inched up by Rs 1,000 per MT in February 2024. HDPE prices were up by Rs 1,500 per MT in January 2024 and Rs 1,000 per MT in December 2023. • In February 2024, HDPE prices were up by Rs 1,000 per MT in the first week of the month. Thereafter no price changes were announced.
Dec-23	Jan-24	Feb-24	
Linear Low-Density Polyethylene (LLDPE)			<ul style="list-style-type: none"> • LLDPE prices remained unchanged in February 2024. LLDPE prices were up by Rs 3,500 per MT in January 2024 and by Rs 1,500 per MT in December 2023. • In February 2024, LLDPE prices remained flat with no changes whatsoever being announced during the entire month.
Dec-23	Jan-24	Feb-24	
Low Density Polyethylene (LDPE)			<ul style="list-style-type: none"> • LDPE prices further strengthened, rising by Rs 3,000 per MT in February 2024 after an increase of Rs 6,000 per MT in January 2024 and Rs 3,000 per MT in December 2023. • In February 2024, LDPE prices were up by Rs 3,000 per MT during the first half of the month. Thereafter no price changes were announced.
Dec-23	Jan-24	Feb-24	
Polypropylene (PP)			<ul style="list-style-type: none"> • PP prices were higher by Rs 1,500 per MT in February 2024. PP prices had increased by Rs 4,000 per MT in both January 2024 and December 2023. • In February 2024, PP prices were up by Rs 1,500 per MT in the first week of the month itself. Thereafter no price changes were announced.
Dec-23	Jan-24	Feb-24	
Polyvinyl Chloride (PVC)			<ul style="list-style-type: none"> • PVC prices moved up by Rs 1,000 per MT in February 2024 after a decline of Rs 3,000 per MT in January 2024. Prices had increased by Rs 2,000 per MT in December 2023. • In February 2024, PVC prices were up by Rs 1,000 per MT in the first week of the month itself. Thereafter no price changes were announced.
Dec-23	Jan-24	Feb-24	

Source: Industry, Plexconcil Research



Mukesh Agarwal

COO & Director, RaRean Fluid-Tech Pvt Ltd.

Unlocking the Vital Role of the Humble Pipe

High-density polyethylene (HDPE) pipes are a versatile and robust piping solution made from a thermoplastic polymer known as high-density polyethylene. They have a long service life and are resistant to chemical corrosion, abrasion, and weathering, ensuring reliability even in challenging environments. They are highly flexible, allowing for easy installation around obstacles and in areas with shifting soil. They reduce the need for additional fittings and joints, minimizing potential points of failure. They are lightweight compared to their counterparts, making transportation and installation more cost-effective and less labour-intensive.

Within the Indian plastic pipe market, the stage is set for transformative growth, with key advancements and trends steering this evolution. Some of these include:

- 1. Rise of High-Density Polyethylene (HDPE) Pipes** - Known for their durability, corrosion resistance, and flexibility, HDPE pipes are witnessing growing demand across various applications, including water supply, gas distribution, and industrial processes. This trend reflects the industry's recognition of HDPE pipes as a versatile and cost-effective solution for fluid conveyance.
- 2. Improved resins and grades** - Advancements in polymer science have led to the development of new PE resins and grades with enhanced properties. These include higher strength, improved resistance to chemicals and abrasion, and better performance under various temperatures.

- 3. Sustainability in pipe manufacturing** - By increasing emphasis on environmentally responsible production practices for pipes to reduce their negative influence on the environment, manufacturers are investigating environmentally friendly production methods and recyclable materials as the industry shifts towards sustainable infrastructure solutions.
- 4. Global expansion and standardisation efforts** - The global market for PE pipes continues to expand, driven by urbanization, industrialization, and the need for reliable infrastructure. Emerging economies, in particular, are investing heavily in their water and gas distribution networks, boosting demand for PE pipes.

Adapting to shifting market demands, at present, the increasing utilization of HDPE pipes for natural gas and petroleum distribution, as they are a safer alternative to traditional metal pipes, providing water to the crops, and spraying pesticides to kill various pests is contributing to the growth of the market.



The growing employment of HDPE pipes in various automotive components, including bumpers, fuel tanks, and interior parts, is offering a favourable market outlook as well as increasing implementation of stringent emission regulations that require automakers to reduce vehicle weight and improve fuel efficiency is supporting the growth of the mar-

ket. Additionally, the rising need for sustainable packaging solutions to prevent plastic pollution is bolstering the growth of the market.

In this interview, Mukesh Agarwal, COO & Director, RaRean Fluid-Tech Pvt Ltd. shares his perspectives about the industry and key factors such as innovation, sustainability, quality, etc. that are foundational to the future of the industry.

(excerpts)

What are the current growth trends in the PE pipes and fittings industry, and what factors/applications are driving this growth?

The Indian market value of HDPE pipes and fittings in 2023 is ~ \$ 778 million with a growing CAGR of 8.8% is gaining high traction as it is lighter compared to cast iron and galvanised iron pipes, chemical resistant, readily shaped and welded, and non-corrosive. The other factors that affect market growth are infrastructure development, water management, industrial applications, and technological advancement. Currently, the market demands underground cabling and longevity of water supply systems.

The factors that are driving the growth of this market are -

- The Union government has allowed a budget of Rs. 70,163 cr for Jal Jeevan's mission
- The AMRUT covers a budget is Rs 50,000 crore for five years for infrastructure development in the urban area
- City gas distribution is a part of the Indian government's target of raising India's share of natural gas in its energy basket to 15% by 2030 up from the current 6.8%
- 40.8% of the HDPE market is dominated by water supply pipe applications
- 34.4% of the HDPE market is dominated by West and Central India



How is the PE pipes and fittings industry responding to emerging regulatory frameworks related to environmental sustainability and plastic waste management?

Responsible processors ensure that they stringently follow industry standards in not just quality terms but ensuring overall sustainable practices. The Bureau of Indian Standards (BIS) has recently introduced two new standards, IS: 14534 and 14535, aimed at regulating plastic reprocessing. However, and despite this crucial step, a considerable number of plastic recyclers operate without proper oversight from authorities. Consequently, a substantial portion of recycled plastics is channeled into inappropriate applications, sparking widespread concerns within society.

What innovations are being introduced in the manufacturing processes of PE pipes and fittings to enhance efficiency and reduce environmental impact?

PE pipe was discovered during the Second World War as a replacement for Natural rubber. A lot of innovation in the product has created PE with higher molecular weight to render higher strength resulting in a better grade of PE resin. PE100 is the latest grade which was innovated on PE63 and PE80. Newer development resulted in the arrest of Slow Crack Growth and Rapid Crack Growth in PE pipe.

What are the challenges to integrating sustainable materials, such as recycled plastics or biodegradable polymers, into their product lines?

Based on our industry experience and pricing feedback from clients as well as from raw material supply, it can easily be construed that there is rampant use of "not fit for purpose reprocessed material." This fact is also reiterated by online water quality data of JJM Dashboard which shows as much as 10% of the water samples to be contaminated.

Treated water from the WTP is transported mostly through HDPE Pipes which would lead us to believe that the source of contamination is the medium of transportation. It is a proven fact that HDPE Pipes following the use of the right raw material are the cheapest and the best medium for transporting potable water as it is not prone to any corrosion or generate any residue.



Reprocessed Plastics from uncertified and unknown compositions are the biggest threat to “LIFE” - the life of the pipeline and more importantly life of human beings, compromising the noble objective of the Jal Jeevan Mission. The use of plastics from uncertified sources in the Pipe affects the structural integrity apart from the health scare. Government regulation on the alternate use of recycled plastics including medical plastic waste is not implemented in the letter of law.

Unethical practices by unscrupulous manufacturers cannot be allowed to defeat such a noble deed the government has set out to achieve. Unfortunately, the prevalent practice in the pipe industries to improve margin by massive use of Blue Drum recycled coupled with addition of LLDPE, Film and Blow grade material to manipulate Density and MFI. Recycled Plastic is the biggest threat to the quality of PE pipes and the Water Industry.

Therefore, in RaReAn Fluid-Tech, we recycle our plastic pipes as we only use 100% virgin raw material and do not mix any other components into our pipes. We focus on maintaining performance, durability, and safety standards while incorporating sustainable materials.

What are the developments/technologies being used presently to enhance the performance and durability of PE pipes and fittings, particularly in demanding applications such as infrastructure projects or corrosive environments?

Advancements in PE (Polyethylene) pipes and fittings for demanding applications, like infrastructure projects or corrosive environments, include:

- Improved Resins: Enhanced polyethylene resins offer better chemical resistance and durability.
- Multilayer Design: Composite pipes with PE layers and barrier materials resist corrosion and maintain flexibility.
- Reinforcement: Integration of carbon or glass fibers boosts structural strength against exter-

nal pressures.

- Protective Coatings: Special coatings shield PE pipes from corrosion and harsh conditions.
- UV Protection: UV stabilizers prevent degradation in outdoor installations.

These innovations ensure PE pipes and fittings meet rigorous performance standards in challenging settings. However, for instance, when it comes to transportation of drinking water processors are looking towards food-grade material that ensure hygiene and prevention of contamination, etc. Manufacturers are looking for innovative applications and undergoing strategic initiatives to gain competitor advantage resulting in profit and overall market growth.

What are the emerging market opportunities for PE pipes and fittings, both geographically and in terms of applications (e.g., water supply, water waste management, industrial piping, transportation of fuel gas)?

The Indian pipe market is currently and forecasted will be dominated by water supply pipe applications.

In 2028, we anticipate that Water supply pipes is predicted to grow by \$490 million with a CAGR of 8.9%. Similarly, we expect Sewage system pipes to grow up to \$284 million with a CAGR of 10%.

The fastest growing segments will be agricultural irrigation pipes and city gas distribution pipes growing at 10.8% and 10.5% CAGR over the next 5 years.



Speaking of geographical market demand, we expect West and Central India to grow to \$421.7 million with a CAGR of 9.2%, due to its infrastructural development. We foresee the market in North India, South India, and East India at \$377.3 million with a CAGR of 10.1%, \$329.2 million with a CAGR of 10% and \$138 million with a CAGR of 10.5%, re-

spectively.

What collaboration or partnership exists between stakeholders in the plastic pipes and fittings industry and other sectors, such as research institutions, government agencies, or NGOs, to promote sustainability and innovation?

Rarean FluidTech is committed to advancing research and development (R&D) initiatives aimed at investigating the adverse impacts of recycled and uncertified plastics on public health, as well as evaluating their effects on the structural integrity of pipes. Currently, we are actively engaged in the development stage of R&D projects focused on enhancing the properties and strength of PE (Polyethylene) pipes. We take pride in our partnerships with esteemed institutions such as the Indian Institutes of Technology (IIT), the Institute of Life Science, and the Bureau of Indian Standards (BIS) for these critical R&D endeavors.



How do recent geopolitical and economic developments, such as trade policies or resource availability, impact the global plastic pipes and fittings market?

There are no Domestic players producing medium density Polyethene (MDPE). We are 100% reliant on the import of PE resins used for city gas distribution PE pipelines. This indicates that nations with expanding infrastructure requirements are dependent on imports. This may have an impact on market dynamics since foreign firms may control a sizable portion of the market, posing difficulties for potential local competitors.

The domestic resin manufacturers do not produce compounded resin. The lack of compounding capabilities domestically might lead to reliance on imported materials, affecting the cost and supply chain of plastic pipes and fittings.

Conflict in the Red Sea and Eastern Europe the sea freight has become unpredictable causing difficulty in meeting the aspirations of overseas buyers.

What are the future prospects for the adoption of advanced materials and manufacturing techniques in the plastic pipes and fittings industry, and how might these innovations reshape the compete landscape?

The plastic Pipe industry is under constant innovation. We see prospects in OPVC pipes which have high impact strength and working pressure. In PE Pipes, Innovation in the polymer resin is expected to result in the development of PE pipes for various applications in difficult and hostile environments such as effluent disposal and transportation of corrosive fluid at higher temperatures.

RaRean Fluid-Tech is a polyethylene (PE) pipe manufacturer founded on the principles of providing the Best Quality Pipe by using 100 per cent pipe grade polyethylene resins. The company's state-of-the-art plant located in Khordha, Odisha, India produces about 20,000 MTPA of PE pipe for applications like water supply, sewage, gas distribution, industrial, and irrigation. The extensive range of high-quality PE pipes offers durability, flexibility, and efficiency, compiling to various national and international standards. Committed to valuing human life and life of the pipeline, by providing cutting-edge solutions to meet the evolving needs of our customers, the company credits its success to its team of highly skilled professional team, a passion for innovation, and delivering unparalleled products and service.



Tents of Synthetic Fibres

A tent is a temporary overhead shelter made of sheets of fabric or any other material, attached to a frame made of poles and held up by ropes. Tents are available in various shapes and sizes, depending upon their use. Even the material used for making tents can be as basic as cotton canvas to synthetic fibres such as polyester and nylon. Tents made of synthetic fibres have soared in popularity as they are lightweight, durable, waterproof, and affordable. Tents made of synthetic fibres are classified under Subheading 630622 of the Harmonized System (HS) of Coding.

World-wide import of Tents of synthetic fibres is valued at USD 3.0 billion per year approximately.

- In 2022, top-5 exporting countries of Tents of synthetic fibres were: China (60.8%), Bangladesh (12.1%), Viet Nam (4.8%), Belgium (2.4%), and Netherlands (2.1%).
- Likewise, top-5 importing countries of Tents of synthetic fibres were: United States of America (23.8%), Japan (7.5%), Germany (7.1%), Australia (5.7%) and Netherlands (5.2%).

In 2023, India exported 38 tonnes approx. of Tents of synthetic fibres valued at USD 0.36 million to the world. United States of America was the top export destination both in terms of value as well as volume.



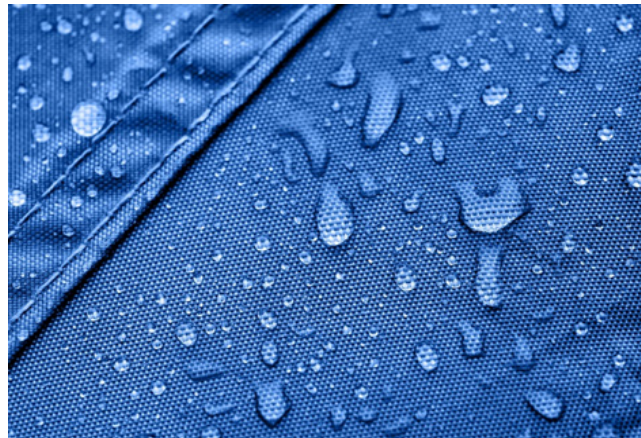
Destination Country	Value (USD Mn)	Destination Country	Qty. (tonnes)
United States of America	0.10	United States of America	12.87
Kenya	0.07	United Arab Emirates	6.52
United Kingdom	0.06	Kenya	6.29
Sweden	0.05	Sweden	6.02
United Arab Emirates	0.02	United Kingdom	1.63
Norway	0.02	Panama Republic	1.15
New Zealand	0.01	Norway	0.82
Panama Republic	-	Tanzania Republic	0.47
Tanzania Rep	-	Qatar	0.42
Qatar	-	Djibouti	0.30

Source: Department of Commerce, Govt. of India, Plexconcil Research

In 2023, India imported 1,125 tonnes of Tents of synthetic fibres valued at USD 5.38 million. China was the top supplier of Tents of synthetic fibres to India, both in terms of value as well as volume.

Source Country	Value (USD Mn)	Source Country	Qty. (tonnes)
China	3.82	China	993.82
Bangladesh	1.29	Bangladesh	107.96
Singapore	0.07	Singapore	11.87
Viet Nam	0.05	Mexico	3.08
Latvia	0.04	Viet Nam	2.56
Italy	0.03	Qatar	1.50
Qatar	0.02	United States of America	1.38
United States of America	0.02	France	1.24
France	0.02	Italy	0.37
Mexico	0.01	Latvia	0.33

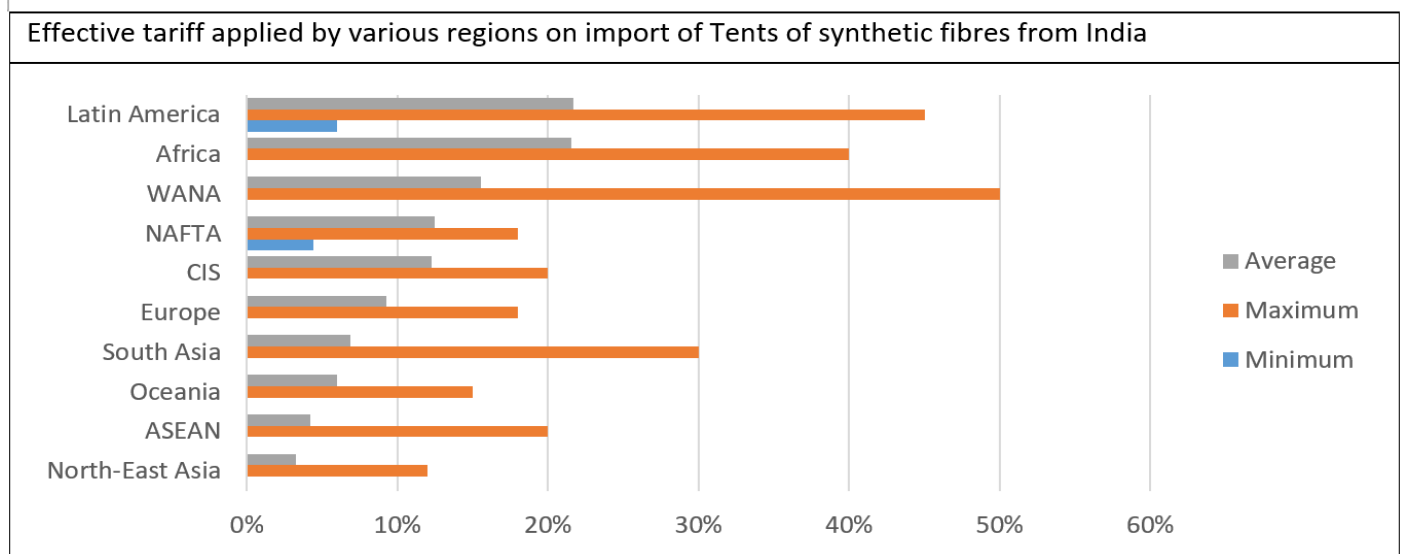
Source: Department of Commerce, Govt. of India, Plexconcil Research



▶ Product of the month

Indian firms dealing in Tents of synthetic fibres should target exports destinations like Australia, Cambodia, Japan, Norway, Philippines, South Korea, Thailand, and the United Arab Emirates, as these are large markets.

There is zero duty applicable on import of Tents of synthetic fibres from India in Japan as well as South Korea under India-Japan Comprehensive Economic Partnership Agreement and India-Korea Comprehensive Economic Partnership Agreement, respectively. Even Australia and the United Arab Emirates provide duty free access on imports of Tents of synthetic fibres from India under the India-Australia Economic Cooperation and Trade Agreement and India-UAE Comprehensive Economic Partnership Agreement, respectively. Import of Tents of synthetic fibres from India by some of the ASEAN countries (particularly Thailand, Philippines and Cambodia) is also eligible for zero customs duty under the ASEAN-India Free Trade Agreement. Tents of synthetic fibres do not attract any customs duty in Norway and Singapore.



Source: Market Access Map, [Plexconcil Research](#)



NORWAY

Economic overview

Norway is located in Northern Europe sharing land borders with Sweden, Finland, and Russia. It has an area of 323,802 square kilometres and a population base of 5.5 million. Norway is an advanced and high-income country with a per capita GDP in excess of USD 100,000, thanks to its huge oil and gas resources. Over the years, Norway has built its expertise in commercial shipping, fishing, and aquaculture. Recently India signed a trade agreement with the four nation European Free Trade Association (EFTA) comprising of Iceland, Liechtenstein, Norway, and Switzerland. Given the above context, Norway remains an attractive export destination for Indian goods.

As of March 14, 2024, Moody’s rating for Norway is Aaa (Stable); while Fitch rating stands at AAA (Stable). S&P has converted its long- and short-term sovereign credit ratings on Norway to unsolicited.



Economic indicators		2020	2021	2022
Nominal GDP	USD Billion	367.6	490.3	579.4
Nominal GDP per capita	USD	68,275	90,541	1,05,826
Real GDP growth	%	-1.3	3.9	3.3
Total population	Million	5.4	5.4	5.5
Average inflation	%	1.3	3.5	5.7
Total merchandise exports	USD Billion	82.4	160.5	271.7
Total merchandise imports	USD Billion	81.3	98.6	107.3

Source: IMF, TradeMap

Norway has trade agreements with several countries in Africa, ASEAN (Indonesia, Philippines, and Singapore), Commonwealth of Independent States (Georgia and Ukraine), Europe, Latin America, North America (Canada and Mexico), North-East Asia (Hong Kong and Republic of Korea), and West Asia-North Africa region. It may be noted that India-EFTA Agreement that was signed on 10th March, 2024, is yet to come into force.

Trade overview

India and Norway enjoy warm and friendly relations. The countries engaged in bilateral trade worth USD 1.27 billion in 2023. During the year, India's exports to Norway were valued at USD 484 million while India's imports from Norway were valued at USD 782 million.

The major items of export (2-digit HS) from India to Norway are Organic chemicals (USD 86 million); Ships, boats and floating structures (USD 68 million); and Products of the milling industry incl. guar meal (USD 60 million). Likewise, major items of export (2-digit HS) from Norway to India are Mineral fuels incl. liquified propane and butane (USD 303 million); and Nickel and articles thereof (USD 130 million).



For products that come under the purview of PLEXCONCIL, the trade is in favour of India with exports of USD 30 million to Norway and a trade surplus of USD 6.6 million. The major items of export to Norway being:

- Cordage, fishnets & monofilaments (47.7%)
- FIBC, woven sacks, woven fabrics & tarpaulin (16.9%), and
- Floorcoverings, leathercloth & laminates (13.1%)

Norway's annual plastics imports are valued between USD 45-50 billion approx. Its plastic imports are largely catered to, by China (15.5%), Sweden (13.9%), and Germany (12.8%). India meets 1.3% of all plastics imports of Norway.

Nonetheless, India has a good standing in some of the plastics product imports by Norway:

- Cordage, fishnets & monofilaments – Market share of 14.8% (Rank 2)
- FIBC, woven sacks, woven fabrics & tarpaulin – Market share of 10.1% (Rank 2)



Export potential for India

Our internal research indicates that India’s plastics exports to Norway has the potential to grow to USD 3.6 billion. Product categories, within plastics, that have immense export potential to Norway include:

Product panel	Norway’s import from India	Norway’s import from world	India’s export to world	Export potential for India
	USD Million	USD Million	USD Million	USD Million
Consumer & houseware products	8.7	1,161.9	1,623.6	712.1
Plastic raw materials	2.6	827.3	3,602.4	576.9
Plastic films and sheets	1.1	621.4	1,936.2	532.5
Medical items of plastics	0.9	515.6	1,041.6	432.2
Packaging items - flexible, rigid	0.7	471.6	647.6	366.1
Plastic pipes & fittings	0.4	264.8	304.0	177.6
Cordage, fishnets & monofilaments	25.3	171.0	282.8	122.7
Floorcoverings, leathercloth & laminates	3.3	114.7	775.8	96.2
FIBC, Woven sacks, Woven fabrics, Tarpaulin	16.9	167.9	1,512.6	93.1

Source: TradeMap, Plexconcil Research

International News



Tomra Leverages AI to Optimize PET Recycling

Tomra Recycling will feature the company's latest sorting innovations during NPE2024 in Orlando, May 6-10, 2024, at booth #S35185. Team members will preview Tomra's latest artificial intelligence (AI) technology, based on deep learning, available for cleaning recycled polyethylene terephthalate (PET) material streams.

In addition, the company will offer insights into the updates available on the recently introduced InnoSort Flake as well as the AutoSort Flake sorting solutions.

GainNext, Tomra latest breakthrough AI technology to improve plastics sorting accuracy, uses deep learning capabilities to sort objects that could not be separated by traditional methods. Combined with advanced AutoSort technology, GainNext classifies material based on sensor data and provides object recognition using an RGB camera to separate materials with high purity levels without compromising throughput speed.

One of the most recent applications for GainNext aids in creating a pure recyclable PET fraction by removing difficult-to-detect plastic contaminants, such as multi-layer packaging, to create a clean PET bottle stream. Leveraging AI, the PET cleaner application targets the separation of white opaque PET from clear and light blue PET, which, until now, was difficult to solve.



The latest advances in flake sorting and recycling.

Delivering high-throughput purification of plastic flakes, the new InnoSort Flake's feature enhancements enable simultaneous flake sorting by polymer, color, and transparency, achieving superior quality with high throughput and maximum yield. Its advanced near-infrared (NIR) spectrometer detects polymers from contaminated in-feed, so mixed plastics are sorted into clean PET, polypropylene (PP), polyethylene (PE) and other fractions for extrusion. Enhanced optics with changeable color background and dual-sided high-resolution cameras detect millions of colors to create single-color fractions. For high-end applications such as bottle-to-bottle recycling where contamination of the infeed material is low, but quality requirements are high, Tomra Recycling offers the AutoSort Flake sorter. It features a powerful combination of NIR spectrometer, full color camera and metal sensor to deliver simultaneous material, color and metal detection and achieve both extremely high purity and stable throughput. A high sensitivity electromagnetic sensor detects and removes the smallest ferrous and non-ferrous metals contaminants down to 1 mm (0.04 in) with maximum precision.

Team members can also explain the benefits of Tomra's related technologies including Sharp Eye and the patented Flying Beam sensing technology.

Source: Plastics Today

World First: Manufacturer Runs 128-Cavity Mold in 1.9-second Cycle Time

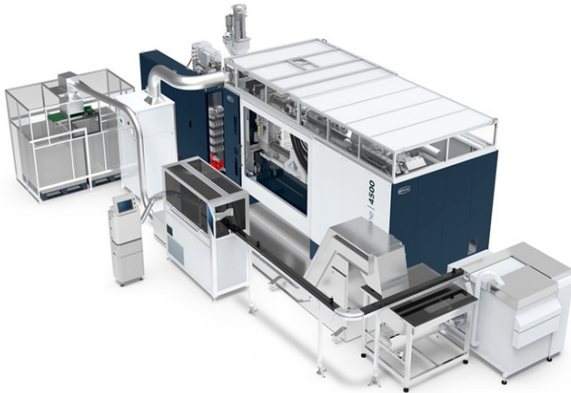
A 128-cavity mold will produce 26-mm water closures in a cycle time of 1.9 seconds in a live experience at Netstal's booth at NPE 2024.

Netstal's CAP-Line 4500 is identical to two production systems being used by Alltrista, a contract manufacturer based in Greer, SC. The line features an all-electric

clamping unit with 4,500 kN of force and a dry cycle time of 1.4 seconds. An optimized barrier screw allows for a smaller injection unit with higher plasticizing performance and better homogenization, Netstal explained.

More than three billion closures produced annually

“Alltrista is the first in the world to produce with 128 cavities and a cycle time of 1.9 seconds,” said Horst Kogler, head of Netstal’s caps and closures business unit. “They produce more than 3.1 billion closures with two lines [annually]. More output per square meter of production area is currently not possible.”



Enclosure weight reduced 25%

The mold, produced by Austria’s z-moulds, is as small and light as a 96-cavity mold and fits into the injection molding machine with a smaller column distance. Cycle time is reduced by the smaller design, which also requires moving less mass. Alltrista has cut the weight of its enclosures by 25%; with 3.1 billion closures produced annually, that means more than 2 million pounds less resin used – about the weight of 160 African Bush elephants, the company said.

In the NPE demonstration, finished caps will travel through an Intravis vision-inspection system. The system executes 360-degree inspection of the closures to an accuracy of hundredths of a millimeter using nine high-resolution cameras.

Overall, Netstal’s CAP-Line also fits in a smaller overall space — 538 square feet — and uses about 12% less electricity than competing machines running 96-cavity molds, Kogler said.

Accelerated machine delivery times

“With the new CAP-Line concept, we are aligning our portfolio even more closely with our customers’ applications,” he noted. “Closure manufacturers benefit from a customized system, while pre-configuration can speed up the consultation and quotation process so that delivery times for the machine are as short as possible.”

Added Christopher Navratil, CTO of Alltrista’s parent company: “We were determined to be the first manufacturer to run a system with 128 cavities in under two seconds. In Netstal, z-moulds, and Intravis, we have found the best system partners for this project. Each company is a leader in its field, and the combination is unbeatable. With our 128-cavity systems, we produce more efficiently than ever before, can deliver at any time, and inspire our customers. This has given us an enormous competitive advantage.”

Visit Netstal at booth W223 during NPE2024 at the Orange County Convention Center in Orlando, FL, from May 6 to 10.

Source: Plastics Today

Borealis and AKVA launch workboat from renewable feedstock-based plastic

Borealis and AKVA group announced a breakthrough in sustainable aquaculture: a workboat hull constructed from renewable plastic. The boat will be unveiled in Mo i Rana, Norway, in Spring 2024, marking a significant step forward for circularity in marine technology.

Borealis is a provider of advanced and sustainable polyolefin solutions whilst AKVA group is a technology provider to the aquaculture industry.

The Polarcirkel series is known for its practical design, exceptional reliability, and unmatched safety. Used in a wide range of industries, including fish farming, oil and gas, rescue, defence, Arctic tours, and recreational boating, these vessels can endure some of the most challenging conditions on the planet, from -40° C in Arctic regions to +55° C in the tropics.



Using Borealis’ Borneables portfolio of renewable polyolefins, AKVA group can now offer these boats with a substantially reduced carbon footprint. Derived from renewable sources such as used cooking oil, the Borneables offer the same material performance as virgin plastics, yet decoupled from fossil-based feedstock.

The hull is made from Borealis BorSafe HE3490-LS-HW grade, which is composed of 90% renewable content based on a Mass Balance approach. For every kilogram of polyolefin produced, this grade achieves an estimated reduction of 1.9kg of CO2 equivalent emissions when compared to a fossil-based equivalent.

AKVA group has also taken sustainability a step further, transporting materials to Mo i Rana by train to minimise the transportation carbon footprint.

These measures represent clear and measurable progress towards reducing climate impact and establishing a circular economy. In the near future, the partnership between Borealis and AKVA group is set to expand to cover a wider range of workboat components as well as floating aquaculture constructions made of pipes.

“The aquaculture industry is poised for a circular transformation, and we’re excited to lead the charge with the help of Borealis. Our first priority will always be the safety of the people on board our vessels, and it’s remarkable that this can now be achieved just as effectively with a much smaller carbon footprint,” said Freddy Bakken Braseth, general manager of the AKVA group department in Mo i Rana.

“We’re committed to supporting our customers to move away from traditional feedstock and to embrace renewable materials,” explained John Webster, Borealis global commercial director infrastructure.

“The use of the Bornewables in Polarcirkel affirms that high-performance standards can be met sustainably. This move is a significant step forward in our EverMinds mission to accelerate the transformation to a circular economy – with this we put reinventing essentials for sustainable living into full action.”

Source: Interplas Insights

BPF urges government to recognise vital role of plastics industry

The British Plastics Federation (BPF) has published its election manifesto, calling for greater recognition of the industry, measures to support the plastic packaging and recycling industries, and longer-term support to ensure that the UK remains competitive. The document is being sent to all major political parties, MPs and key stakeholders.

Recognition as a vital industry

The UK plastics industry is of strategic importance for national and economic security and the BPF is calling for the sector to be more clearly recognised by the government as a ‘foundation industry’. This is a term the

UK government uses to identify industries that are vital to manufacturing and construction. Plastic is used in almost every sector of the UK economy and virtually all areas of manufacturing and distribution. It is essential in the supply of food and water, the construction of energy-efficient buildings, in healthcare, in transportation and a large swathe of infrastructure, which is why the BPF is calling for this recognition.



Improving the management of used plastic

The BPF is also calling for an acceleration of reforms to help the plastics industry reach greater circularity whilst maximising its potential. It would like to see the UK’s plastic recycling infrastructure expanded and improved from funds raised by the Plastics Packaging Tax. It is also pressing for mass balance to become accepted, so that plastic packaging that has been chemically recycled can be counted as recycled material within the Plastics Packaging Tax. The trade association believes this will allow chemical recycling technologies to receive the investment needed to scale up and for that sector to expand.

As well as urgently calling for clarity on the scheme for Extended Producer Responsibility, the BPF wants the government to accelerate its plans to reform and improve waste collection, as well as implementing a Deposit Return Scheme.

Developing long-term competitiveness

With the industry having experienced a yawning skills gap for many years, the BPF is urging the government to provide support for businesses struggling to source appropriate expertise, while also reviewing how effective the apprenticeship levy has been.

The plastics industry would also like to see regulatory alignment with the EU, where it makes sense, so that trade barriers are minimised. To support the growth of international trade, reintroducing funding to support businesses wishing to attend overseas tradeshows is also necessary, the BPF states.

To assist with improving productivity and reducing carbon emissions, the government is also asked to provide more grants to help companies access more energy-efficient machines.

BPF director general Philip Law stated: “Our industry is so vital to the UK economy and is of undeniable strategic importance, as well as being an invaluable asset for the country, so we want it to be rightfully acknowledged as a ‘foundation industry’. It deserves nothing less. We also desperately need to develop the UK’s recycling infrastructure, and for proposed reforms to packaging legislation to come to fruition quickly. In particular, it is quite inexplicable that there has been no response yet to a consultation on mass balance that took place last July.

“Like all major industries with complex stakeholder networks in a rapidly changing world, we require government cooperation to effectively address issues such as the management and recycling of used plastic, and accessing the best talent, technology and new markets.”

Source: Interplas Insights

3D Printing Slashes Unilever Bottle Design Costs

Unilever and plastic-packaging manufacturer Serioplast Global Services are transforming stretch blowmolded bottle prototyping using 3D printing technology from Formlabs. The result is much faster, less expensive mold making and prototype production and testing.

Working together in Italy, Unilever and Serioplast used 3D printing to rapidly create molds and produce pre-production sample bottles made of PET. The molds were built using Formlabs’ Rigid 10K Resin and Form 3L large-format, stereolithography (SLA) 3D printer.



The SLA 3D printing process enabled Serioplast to build resin molds in two days, a significant time savings vs. traditional machined metal molds (typically outsourced to a vendor), which take four to eight weeks to produce. The printed molds also reduced lead time for pilot testing of blow-molded PET bottles. Lead time to produce 200 bottle samples using the printed molds was only

two weeks, vs. the six to eight weeks required with conventional molds.

Printing the molds reduced tooling cost by up to 90% vs. metal molds. Specifically, the printed molds cost \$500 to \$1,000 to make vs. \$2,500 to \$10,000 for machined metal molds.

Stefano Asnaghi, R&D lead technologist of Serioplast, checks the form and fit of the mold. UNILEVER



Resin handles the pressure.

To create the plastic molds, the team needed a resin that could endure the temperature and internal pressure of stretch blow molding and deliver dimensional accuracy and stability in the finished tooling. Formlabs’ Rigid 10K Resin provided the required strength, stiffness, and thermal resistance.

Formlabs describes the resin as an industrial-grade, highly glass-filled material with a tensile modulus of 10,000 MPa. Molds printed from the resin exhibit good dimensional stability and tolerate hundreds of blow-molding cycles, with repeatability.

To produce bottles with the printed molds, Serioplast used the same blow-molding process window as for a metal pilot mold.

“We are talking about up to 30-bar pressure. It’s absolutely good and reliable on that. We are also talking about 100 °C heating for the [bottle] preform without any wearing on the cavity of the 3D printer mold,” says Flavio Migliarelli, R&D design manager at Serioplast, in a Formlabs video interview.

The sample bottles made using the printed molds were nearly identical to production-quality bottles.

“The Formlabs machine plus the [Rigid] 10K Resin together offer the real possibility to have very good details on the bottles, [including logos or something] like a lemon detail, which requires a lot of precision,” says Stefano Cademartiri, CAD and prototyping owner at Unilever. Produced using the same resin and on the same blow-molding equipment as production bottles, the samples were ideal for pilot testing.

Bottles pass line and consumer testing protocols.

So far, Unilever and Serioplast have tested about 15 bottle designs produced with the molds. Serioplast first created a standard mold design and print preparation and then modified the mold cavity for each unique bottle design.

The ability to rapidly iterate bottle designs and molds speed pilot evaluations by enabling testing of multiple designs at the same time.

The pilot included not only consumer testing but also primary validation of the bottle designs on Unilever’s filling line. This included bottle movement and how the containers functioned during filling, capping, and robotic case packing.

Additionally, Serioplast uses the printed molds to validate the stretch blow-molding process for the bottle designs. The company also performed dimensional analysis on the bottles and conducted performance evaluations, including bulge, cupping, and drop testing. Through the art and science of 3D printing, “Something is on your screen, [and] in a short time is in your hands,” Cademartiri explains. “A real product with a real bottle, with a real cap, and the real label.”

Source: Plastics Today

Scientists show PS helps increase sustainability of medical electronic sensors

Scientists at the University of Stockholm in Sweden have researched the potential of commodity polymers in increasing the sustainability of medical electronic sensors.

Medical electronic sensors are devices placed on our body to measure minute changes, such as blood sugar levels in diabetic patients. These electronic sensors are made of organic semiconductors which are both expensive and have a significant carbon footprint, including silicon, cobalt, germanium, indium, and platinum.



Silicon, for example, requires high amounts of energy to be extracted and China’s Xinjiang region, where human rights abuses to Uyghurs minorities have been recorded, is one of the world’s largest producers of the raw material.

The researchers showed that the footprint of medical electronic sensors can be reduced by decreasing the amount of raw material used in production and replacing it with polymers.

“Organic semiconductors have the potential to decrease our dependency on critical raw materials, particularly in applications that are not meant to last for a lifetime, like disposable and consumers electronics,” Erica Zeglio, Assistant professor at the University of Stockholm said in a statement. “However, high performance organic semiconductors are currently manufactured at a small scale and using complex chemistries. Commodity polymers like polystyrene are synthesised at large scale and at a fraction of the cost.”

The scientists showed that blending so-called n-type organic semiconductors with insulating polymers ‘drastically improve the performance of organic electrochemical transistors while decreasing considerably the amount of conjugated polymer needed’ by six times. PS showed the best results, leading to enhanced performance by two orders of magnitude and a 12% increase in device stability.

“Blends that decrease the amount of semiconductor and increase performance are a win-win situation,” said Anna Herland, co-corresponding author of the study. “We can use less amounts of the costly material component while at the same time provide better performance and stability – a critical parameter for applications, such as sensors, where reliable monitoring is of utmost importance,” she concluded.

The researchers shared their findings in ‘Mixing Insulating Commodity Polymers with Semiconducting n-type Polymers Enables High-Performance Electrochemical Transistors’, recently published in *Advanced Materials*.

Source: Sustainable Plastics

CJ Biomaterials unveils fully biodegradable PHA bottle cap

CJ Biomaterials, a division of South Korea-based CJ CheilJedang, has announced another application for its PHACT-branded PHA.

Beyond Plastic, a California-based PHA manufacturer, is using PHACT to develop what it calls the world's first completely biodegradable plastic bottle cap. In addition to being fully biodegradable, the bottle cap is also recyclable and compostable.



“Utilizing CJ Biomaterials’ PHA biopolymers, we’ve developed an authentically eco-conscious alternative to conventional plastic bottle caps,” said Fred Pinczuk, Beyond Plastic’s CTO. “Our aim is to offer tailored PHA formulations for diverse applications, such as straws, caps, and various single-use plastics currently threatening our environment. Once the process is streamlined, it will catalyse a profound transformation within the industry,” he added.

CJ Biomaterials’ PHACT, a contraction of ‘PHA’ and ‘Act’, was launched in 2022 and was then the only amorphous PHA on the market. It is a softer, more rubbery version of PHA that offers different performance characteristics than the crystalline or semi-crystalline forms that currently dominate the PHA market.

Polyhydroxyalkanoates are linear polyesters produced in living cells in nature through bacterial fermentation of sugars or lipids. The raw materials for Phact are sugars sourced from plants like sugar cane, tapioca, corn and cellulosic biomass. CJ BIO can increase PHA content in microorganisms from about 5% default accumulation up to 85% through fermentation via engineered microbial strains. The company employs advanced downstream technology for the extraction of PHA components and for the manufacture of specific products.

PHACT is certified biodegradable under industrial compost, soil (ambient), and marine environments. It is also considered ‘home compostable,’ meaning that it does not require specialised equipment or elevated temperatures to fully degrade.

“These PHA-based bottle caps not only address the pressing environmental concerns associated with traditional plastic caps, but also demonstrate the versatility and effectiveness of our PHA technology in delivering sustainable alternatives,” said Max Senechal, CCO at CJ Biomaterials.

Earlier this year, CJ Biomaterials introduced a PHA-based polybag for same-day delivery. The company also works with NatureWorks to broaden the use of PHACT PHA in multiple markets and applications.

Source: Sustainable Plastics



India News

Sabic, Pashupati Group exploring recycling opportunities in India

Saudi chemical manufacturer Sabic signed a memorandum of understanding with Pashupati Group, an India-based mechanical and chemical recycler of PET and polyolefins.

The companies will explore, evaluate, and develop local business opportunities for recycling waste plastics in India, including the potential development of a pyrolysis plant to provide Sabic with feedstock for its circular polymers.

Pashupati operates waste management services under the Extended Producer Responsibility (EPR) legislation for plastics introduced in India in 2016. The company uses its Waste Circularity mobile app to collect plastic waste in challenging terrains, including mountains and coastal areas, in addition to serving urban and rural settings. It collects 12 million PET bottles and 2 million polyolefin bottles a day.

Through the new partnership, Sabic and Pashupati will share best practices and exchange knowledge about plastic recycling processes, including the mixing of virgin and recycled polyolefins in manufacturing new products. Pashupati will contribute its expertise in mechanical and chemical recycling, whilst Sabic will focus on the marketing and sales of recycled products.



“This is a crucial first step in our efforts to support and accelerate the transformation of India’s plastics economy towards circularity,” said Sanjay Mishra, general manager, engineering thermoplastics & performance polymers at Sabic. “At the same time, it expands our collaboration with experienced local recyclers in Asia as we are continuously sourcing valuable feedstock to meet the growing demand for our Trucircle portfolio of recycled, circular polymers.”

Sabic has committed to producing 1 million tonnes of circular materials by 2030. At the World Economic Forum 2023 Meeting in Davos, it revealed that it is exploring a new world-scale commercial chemical recycling investment. This new plant would potentially have a capacity of around 200 kilotons of per year.

Source: Sustainable Plastics

Plastics Recycling Show India 2024 Announced

Emphasizing the importance of the event, Mr. Taher Patrawala, Managing Director, Media Fusion, said “As we witness a global shift towards sustainable practices, it’s imperative for nations to address the pressing issue of plastic pollution. With the Indian government’s proactive measures, including the ban on various single-use plastic items and the implementation of Extended Producer Responsibility (EPR) regulations, the stage is set for significant strides in plastic waste management.

PRSI Launch Highlights

The launch of Plastics Recycling Show India (PRSI) marks a pivotal moment in our commitment to tackling this challenge head-on. Bringing PRS to India after successful editions in the Middle East and Europe underscores the nation’s dedication to fostering a sustainable future and aligns with government initiatives aimed at promoting responsible plastic usage and waste management.”



The three-day expo and high-level plastics recycling and sustainable packaging conference will unite delegates, thought leaders, innovators, and technology providers in the plastics recycling industry, fostering collaborations, and driving meaningful progress towards a sustainable future. Suppliers, manufacturers, technology specialists, waste managers, consultants, and emerging players in the industry will convene to explore business opportunities under one roof.

At the conference that runs alongside the show, international experts will address key themes including circular economy principles, sustainable packaging, regulations, challenges, opportunities, innovations, technologies and trends, and share insights and experiences from across the plastics sector to promote a green future.

The unveiling of PRSI 2024 followed an illuminating roundtable conference held in Mumbai, where industry thought leaders converged to address the pressing chal-

lenges and opportunities in plastics recycling. Esteemed panelists including representatives from the Bureau of Indian Standards, Alliance to End Plastic Waste, INDIAN PLASTICS INSTITUTE – IPI, Mumbai Sustainability Centre, Brihanmumbai Municipal Corporation and other influential stakeholders, engaged in insightful discussions on enhancing recycling infrastructure, incentivization of waste management, deficiencies within the sector, streamlining regulatory frameworks, and fostering collaboration across the value chain. The discussion highlighted the unique challenges specific to Mumbai and underscored the importance of collective action in addressing them.

Speaking on the occasion, Mr. Matthew Barber, Global Events Director, Crain Communications said, “PRS is globally recognised as a brand - known for its expertise in bringing together the entire plastics recycling value chain on one platform in Europe, the Middle East and South-East Asia. The PRS Show has been growing since its inauguration in Europe in 2015. Building on the success of PRS in Europe and the Middle East, we are elated to bring PRS to India. With legislation mandating certain criteria, there is a pressing need to explore industry practices to meet this target.”

India’s plastics industry serves as a key economic growth driver, contributing significantly across sectors such as automotive, construction, electronics, health-care, textiles, and FMCG. With India’s plastic recycling of average 13% surpassing the global average of 9% and outperforming some developed economies that recycled only 4%, the nation’s ambitious recycling approach aims to inspire global leaders in combating plastic pollution. As the first-ever dedicated platform for the plastics recycling industry in India, PRSI 2024 promises to catalyze innovation, foster partnerships, and drive meaningful change towards a circular economy.

Source: SMESStreet.in

Renault-Nissan To Invest \$600-700 Million To Make India An Export Hub

The Renault-Nissan alliance is stepping up its investments in India to make for and sell in the world’s third-largest automotive market. The grouping, which also includes Mitsubishi Motors, plans to invest \$600-700 million at its Chennai-based facility to step up platform localisation and improve sophistication levels in manufacturing, the management said at a press conference on Wednesday. That will spawn multiple powertrains, including hybrid cars, but surprisingly, not electric vehicles as planned earlier. “The EV plans are under discussion. The focus is on exports now,” said Renault Group’s Chief Executive Officer, Luca De Meo, at the press conference.



The company will also roll out four cars—five- and seven-seater SUVs—across both brands in the next three years. The localisation will be on the lines of the Renault Kiger and Nissan Magnite—sub-4-metre compact SUVs that are made in India for the world.

India is at the heart of the Renault-Nissan alliance's global operations, the group's chairman, Jean Dominique Senard, said. "Renault-Nissan has 1.4 million cars on Indian roads. We have produced 2.7 million cars in our 17 years of operations, about half of which were exported," Senard said. "The plant in Chennai has produced about 4.4 million powertrains... This (new investment) is the next era of this alliance in India"

To be sure, Renault-Nissan's sub-billion dollar investment in India pales in comparison with the large-scale production by the likes of Maruti Suzuki India Ltd., but that leaves the alliance unperturbed even as its market share remains at less than 2%.

"We need to find our secret sauce in India," De Meo said. "Compared to the Big Boys (Maruti Suzuki, Hyundai India, Tata Motors Ltd., etc.), we are small scale. But we are global, with significant strength elsewhere that can be brought into India. Never underestimate the strength of this alliance."

Source: NDTV Profit

India's exports likely to reach \$450 bn in 2024 despite Red Sea-linked disruptions, says FIEO President Ashwani Kumar

The country's merchandise exports are expected to reach \$450 billion by the end of this fiscal year despite geo-political challenges including the Red Sea crisis, said Ashwani Kumar, the newly elected president of the apex exporters body Federation of Indian Export Organisation (FIEO). The need of the hour is to address the Red Sea crisis challenges by ensuring the availability of marine insurance and a rational increase in freight charges, he added.

Kumar said the exporting sector, particularly MSMEs, needs easy and low-cost credit, and marketing support to boost the country's exports, adding early conclusion of free trade agreements such as with the UK and Oman will also help push the outbound shipments. MSMEs will play a crucial role in achieving the \$1 trillion goods export target by 2030, according to Kumar.



During April-February 2023-24, exports reached \$395 billion. "This was an impressive increase despite the Red Sea crisis, tight monetary stance by the developed world and falling commodity prices. This reflects the resilience of the exporting community, who have continuously been braving such odds since the Russia-Ukraine war," he said.

The main drivers of merchandise export growth in February include engineering goods, electronic goods, organic and inorganic chemicals, drugs and pharmaceuticals, and petroleum products.

India's merchandise trade deficit widened to \$18.71 billion in February from \$17.49 billion in the previous month, according to government data, as imports outpaced exports in value terms against the backdrop of the Red Sea conflict.

Goods imports rose to \$60.11 billion in February against \$54.41 billion in January, commerce ministry data showed while exports came in at \$41.40 billion in February, up from \$36.92 billion in January.

On a year-on-year basis, exports of goods rose 11.86 per cent in February, up from \$37.01 billion in February 2023, while imports rose 12 per cent. Trade deficit is the difference between a country's imports and exports.

"Many of the world's largest economies held up reasonably well considering the sheer breadth of the headwinds they faced in the last two years, including high interest rates, the stress in interest rate-sensitive and energy-intensive industries, volatile commodity prices, fiscal consolidation, a strong dollar and conflicts in places integral to the global economy," said rating agency Moody's in its latest global macroeconomic outlook report. "We expect a steady normalization in economic activity through this year (CY2024) and next (CY2025) across advanced and emerging market countries," added Moody's.

Source: Mint

India's engineering exports to Russia doubled till February in FY24: EEPC

India's engineering exports to Russia doubled to \$1.22 billion till February during the 2023-24 fiscal, Engineering Export Promotion Council (EEPC) of India said on Tuesday.

The shipments to the country stood at \$616.68 million in the previous fiscal, it said. The exports to the US dipped seven per cent year-on-year to \$15.95 billion during this period, EEPC said in a statement.



In case of China, engineering shipments to that country saw a marginal decline to \$2.38 billion from \$2.40 billion in the period under review, it said.

Exports to the UAE and Australia, with which India had signed an FTA, remained positive.

Till February, shipments to the UAE rose 16 per cent on-year to \$5.22 billion, while those to Australia was higher by five per cent at \$1.30 billion.

Cumulative engineering exports during April-February (2023-24) stood at \$98.03 billion as against \$96.84 billion in the corresponding period a year ago, the statement said.

In the last few months, engineering exports from India have been on a steady growth path. The remarkable performance of the sector in the last three months made it possible for the cumulative exports to record high growth.

As India's current economic performance stabilises, we are hopeful that with the positive turn of tide in global trade, India's exporting community will be able to lift exports to a new high, EEPC India Chairman Arun Kumar Garodia said.

Source: Business Standard

Pharma exports to US up 15% in April-Feb FY24

In what can be good news for the pharma industry, Indian pharma exports to the US market are surging again this fiscal after a lull year registering a double digit growth.

Driven by the boost from the US, the total pharmaceuticals exports too increased 9.34 per cent at \$25.04 billion in April - February of Financial year 2023-24 compared to \$22.90 billion in the corresponding period of previous fiscal year.



"There has been a significant surge of 15.04 per cent in exports to the US at \$7834 million in the April - February period of the current fiscal as against \$7547 million in the same period last year," R Uday Bhaskar, Director - General, Pharmaceutical Export Promotion Council (Pharmexcil) told businessline.

The export growth to the US has more than doubled this year in the period under review as FY 23 registered only a 6.18% increase in exports to US at \$7547 million in FY22, according to Pharmexcil data.

Strong rebuttal

The double-digit spurt in exports to the US this fiscal so far could augur well for the Indian pharma industry which has been facing challenges such as increasing pricing pressure as well as regulatory issues. The US market alone accounts for 30 per cent of overall exports for Indian drug-makers.

"In a way, the surge in exports to the US can also be seen as a strong rebuttal to a notion in some sections that the US importers were looking for alternatives to Indian drugs in key areas such as oncology," the Pharmexcil DG said.

Further, the growth has come in the wake of tumultuous geopolitical situations including the Ukraine crisis and the Red Sea Crisis. The council data also shows export growth in all markets except the CIS region.

Going by current rate of growth, total pharma exports for the full year 2023-24 could close somewhere between \$27.5 billion to \$28 billion, as per Pharmexcil estimates.

Source: HBL

India to become global powerhouse in medical device and pharma exports: Health Minister Mandaviya

India has moved on to become a major exporter of bulk drugs and medical devices, Union Health Minister, Mansukh Mandaviya said in early March.

According to him, India worked on schemes and plans to de-risk its supply chain from global vagaries and dependence on a single country in terms of obtaining APIs for bulk medicine making.

Previous governments should have provided protection to the local pharma industry against dumping of medicines by global majors and also control of APIs; but this was not the case, he said.



“Today India is self-sustainable in critical API (active pharmaceutical ingredients) making, and our medical exports are expected to reach ₹75,000 crore in the coming days,” he said during the inauguration of 39 Greenfield projects under the PLI scheme for bulk drugs and medical devices.

The country has 12,000-odd pharma companies, and bulk drugs continue to be the key requirement for the sector.

India continues to import around 70 per cent of medical devices. And the PLI scheme – under which 39 medical device-making plants are being inaugurated or are currently under commissioning – is expected to further bring down the import bill.

“It is noteworthy that today India has not only reduced its dependence on medicines, API and medical devices, the country is also emerging as a major exporter of these products, thanks to the success of the PLI scheme,” he said adding that soon Penicillin G will be made in India. Penicillin production in India stopped some three decades back.

PLI Scheme

Some 27 Greenfield Bulk Drug Park projects and 13 Greenfield Manufacturing Plants for Medical Devices under the PLI Scheme were inaugurated.

The PLI scheme envisages manufacturing of 41 Bulk Drugs with a total outlay of ₹6,940 crore during the tenure of the scheme from 2020-21 to 2029-30.

Some 26 applicants for manufacturing of medical devices have been approved for 138 products under the PLI scheme with total financial outlay of ₹3,420 crore between 2020-21 and 2027-28.

According to Mandaviya, PLI 1.0 with a financial outlay of ₹54,000 crore saw a “good response from the industry” and this led to the introduction of PLI 2.0 at a financial outlay of another ₹15,000 crore. The PLI 2.0 will further consolidate India’s position as an exporter.

The PLI scheme is a result of wide-ranging deliberations on India’s dependence on critical resources, risk to supply chain bottlenecks.

“(The) PLI schemes are a success story for us,” he said adding that the focus would continue to be on “long-term policies” that aid investment by the industry.

Source: HBL

Govt allows UAE’s Adnoc to export oil from Indian strategic storage

The government has allowed Abu Dhabi National Oil Company (Adnoc) to export crude oil it has stored in underground strategic storages at Mangalore to give operational flexibility to the foreign firm, an order of the Ministry of Commerce and Industry said on Saturday.

At present, crude oil, which is the raw material for producing fuels like petrol and diesel, is not allowed to be exported except through the state-owned Indian Oil Corporation (IOC).

In an order, the ministry said the condition of export being allowed only through IOC will continue, but “AMI (Adnoc Marketing International (India) RSC Limited India) is exempted from STE conditions and is allowed to re-export crude oil from their commercial stockpile at Mangalore strategic petroleum reserve, at their own cost”.

Source: PTI

Car shipments shifting back to pre-Covid gear; Maruti, Hyundai at the top

Made-in-India car exports are set to touch pre-Covid levels, despite global uncertainty, amid an increase in demand for models such as the Hyundai Creta, Maruti Suzuki Grand Vitara, Kia Seltos and Mahindra XUV700 from customers in Australia, Latin America and South-east Asia.

According to industry estimates, Indian carmakers are set to ship more than 675,000 vehicles in the fiscal year that ends March 31, recovering from a low of 404,000 reported in the aftermath of the pandemic in FY21. Around 663,000 cars were exported from the country in the last financial year.

Vehicle exports were dominated by Maruti Suzuki and Hyundai, which together accounted for two-thirds of all cars shipped out of the country. Homegrown auto makers like Tata Motors and Mahindra & Mahindra had a modest share of 0.4% and 2%, respectively, as per industry data. Kia, Volkswagen and Nissan feature among the top five carmakers exporting from India with a share of 9%, 7% and 6%, in that order.



While Tata Motors and Mahindra & Mahindra have over the years attempted to step up exports, the lack of a relevant product portfolio high on quality and features has limited sales overseas, experts said.

Improved portfolio

“Indian companies like Tata Motors and Mahindra & Mahindra (M&M) have been trying to scale up exports for many years now,” said VG Ramakrishnan, managing partner at consultancy firm Avanteum Advisors. “However, they did not have the right products for international markets, where customers are very discerning about quality, specifications, brand commitments. Even in a market like Sri Lanka, where a lot of used cars are sold, buyers look for right-hand drive models from Japan which have more features.”

Still, with both companies working on launching a range of world-class products, the portfolio has improved and international sales have gradually started increasing. “Their share (in exports) may be still low. But overseas sales are slowly improving,” he said.

Tata Motors exported 1,998 vehicles and Mahindra 9,218 vehicles in the first 11 months of the fiscal. Maruti Suzuki shipped 202,786 units and Hyundai 129,755 units in the same period.

Mahindra has started working on expanding its overseas footprint with a refreshed portfolio of vehicles such as the XUV700 & Scorpio-N and a soon-to-be-launched range of electric vehicles.

“Mahindra currently exports vehicles to 30 countries across South Asia, Middle East, Africa, South Africa, Australia, New Zealand, and Latin America. We are expanding our overseas footprint with a refreshed portfolio of vehicles such as the XUV700 & Scorpio-N followed by the soon-to-be-launched range of electric vehicles. Our aim is to scale international operations revenue by 2.5x by FY26 over F23 by making products that can compete with the best in the world. The Mahindra International business will be a lever for growth in the future,” Rajesh Jejurikar, executive director and CEO, automotive and farm equipment, M&M, had told ET recently.

Ramping up production

The country’s largest carmaker Maruti Suzuki is working on tripling exports by the turn of the decade, aligned with the Centre’s bid for a bigger play in the global automotive trade. The company is in the process of investing Rs 45,000 crore to double annual production capacity to 4 million units by 2030 - 3 million destined for the domestic market and 750,000-800,000 for exports. South Korean auto major Hyundai also aims to increase shipments once its second factory at Talegaon becomes operational next year.

“Today, made-in-India cars are on a par with the world,” said Maruti Suzuki chairman RC Bhargava. “Our quality is second to none. Toyota and Suzuki are both placing orders (for exports). They have distribution channels globally and are leveraging them, helping us boost international sales.” Suzuki has a global alliance with Toyota for manufacturing, joint development of products, research, among others.

The government has urged the industry to increase exports to a quarter of its total output by 2030, up from 14% in FY23, and even go beyond that.

Source: ET



Why become a Plexconcil Member?

Established since 1955, the Plastics Export Promotion Council, PLEXCONCIL, is sponsored by the Ministry of Commerce and Industry, Department of Commerce, Government of India. PLEXCONCIL is a non-profit organization representing exporters from the Indian plastics industry and is engaged in promoting the industry exports.

The Council is focused on achieving excellence in exports by undertaking various activities and initiatives to promote the industry. The Council undertakes activities such as participation at international trade fairs, sponsoring delegations to target markets, inviting foreign business delegations to India, organising buyer-seller meets both in India and the overseas etc.,

The Council also routinely undertakes research and surveys, organizes the Annual Awards to recognize top performing exporters, monitors the development of new technology and shares the same with members, facilitates joint ventures and collaboration with foreign companies and trade associations as well as represents the issues and concerns to the relevant Government bodies.

The Council represents a wide variety of plastics products including – Plastics Raw Materials, Packaging Materials, Films, Consumer Goods, Writing Instruments, Travel ware, Plastic Sheets, Leather Cloth, Vinyl Floor Coverings, Pipes and Fittings, Water Storage Tanks, Custom made plastic Items from a range of plastic materials including Engineered Plastics, Electrical Accessories, FRP/GRP Products, Sanitary Fittings, Tarpaulins, Laminates, Fishing Lines/Fishnets, Cordage/Ropes/Twines, Laboratory Ware; Eye Ware, Surgical/Medical Disposables.

Membership Benefits

- Discounted fees at International Trade Fairs and Exhibitions
 - Financial benefits to exporters, as available through Government of India
 - Disseminating trade enquiries/trade leads
 - Instituting Export Awards in recognition of outstanding export performance
 - Assistance on export financing with various institutions and banks
 - Networking opportunities within the plastics industry
 - Special price for Dun & Bradstreet's DUNS Registered Solution, Global Profiler, and ESG Report
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The Plastics Export Promotion Council added the following companies/firms as new members during February-2024. We would like to welcome them aboard!

Sr. No	Name of the Company	Address	City	Pin	State	Email
1	Aim Corporation	Plot No. 129, 130, 131, Alpine Industrial Park, Near Choryasi Toll Plaza, At: Choryasi, Block: Kamrej, Dist: Surat;	Surat	394150	Gujarat	lakkadnavdeep@gmail.com
2	Arham Hi-Tech Design And Solutions Private Limited	2, Gamdevi Ambika Temple, Trust Compound, Kirol Road, Vidyavihar(W)	Mumbai	400086	Maharashtra	amish@arhamcomposite.com
3	Blossom Hairs	Plot No.32b & C,Perumal Koil Main Road, Near Perumal Koil,Purushothaman Nagar,	Chennai	600099	Tamil Nadu	blossomhairs21@gmail.com
4	Brmsco Garments Private Limited	Building No.7/33, Anchalpetty, Po Onakkur, Pampakuda Ernakulam,	Ernakulam	686667	Kerala	brmsco@gmail.com
5	Brshrishti Solutions Private Limited	Plot No C/1, Kapra Colony Nit Faridabad	Faridabad	121001	Haryana	surajsantoshgawand@gmail.com
6	Cartel Health Care Private Limited	5/507 Jaishree Bhawan Ramsagar,	Raipur	492001	Chhattisgarh	cartelhealthcare@gmail.com
7	Chandresh Marketing Pvt Ltd	Survey No 2059, Block No 1, Behind Ratnadeep Metal Industries, Near Khodiyar Hotel,Rajpur Kadi	Mahesana	382715	Gujarat	sonitbalar@yahoo.com
8	Chennai Plastic Sacks Cluster Private Limited	No 12 Jothi Ramalingam Street, West Mambalam	Chennai	600033	Tamil Nadu	chennaiplasticcluster@gmail.com
9	Daga Plastic Industries	95/1/3b Cossipore Road Kolkata		700002	West Bengal	ajay@dagaplastic.in
10	Deccan Plast Industries Private Limited	Plot No. 10-A Kiadb Non Sez Industrial Area Mangalore Dakshin Kannad,	Mangalore	574199	Karnataka	nizamindpi@gmail.com
11	Dhingra Polymers Private Limited	K-54, Industrial Area Udyog Nagar,	West Delhi	110041	New Delhi	info@dhingrapolymers.com
12	F&S Sales India Private Limited	10th Floor, Ambience Corporate Tower II, Ambience Island,	Gurugram	122001	Haryana	amish.agarwal@sabic.com
13	Ganpati Roto Solutions	Na 493b, G T Road (S),Bengal Jute Mill,Shibpur	Howrah	711102	West Bengal	ganpatiroto@gmail.com
14	Hightech Rope Industries	Opp. Nilkanth Mahadev Mandir, Moti Marad,	Rajkot	360421	Gujarat	hightechrope@gmail.com
15	Hira Packaging Solutions	Plot No.149,Maa Umiya Audhyogik Vasahat Maryadit, Kapsi Bu.	Nagpur	441104	Maharashtra	hirapackaging-solutions@gmail.com
16	Indian Centrifuge Engineering Solutions Private Limited	Shed No.C4, Industrial Estate Ettumanoor Kottayam Kottayam	Kottayam	686631	Kerala	info@releaf.in
17	Jflexy Packaging Private Limited	Plot No. 15, Swagat Industrial Estate, Village Dhanot, Taluka Kalol, Chhatral	Kalol	382729	Gujarat	info@jflexypackaging.com
18	Ks Rubber Industries	281/3 Daultabad Industrial Area Surat Nagar Phase-1, Gurugram,	Gurgaon	122006	Haryana	ksrubberind@gmail.com
19	Kunjan Plastics Industries Private Limited	102, Swastic Apartment, Wardhaman Nagar,	Nagpur	440008	Maharashtra	mohitsarda90@gmail.com
20	Lourence Polyfab Llp	Survey No.268 P5 P1, ,At.Nesda Surji Taluka .Tankara Dist.Morbi	Morbi	363650	Gujarat	lourencepolyfab-llp115@gmail.com
21	Nasmed Diagnostic Private Limited	Survey No 282 (Old Block No 213 Paiki), Nandoli,	Gandhinagar	382115	Gujarat	nasmeddiagnostic@gmail.com
22	Neelgiri Machinery Global Private Limited	Kh.No.154, Plot No.586 587 Near Tulip School, Vill Pooth Khurd,	North West Delhi	110039	Delhi	support@neelgirigroup.in
23	Neha Impex Private Limited	3rd, 161/1, Bangur Building, Mahatma Gandhi Road,Burra Bazar,	Kolkata	700007	West Bengal	nehaimpex1991@gmail.com

New Members

24	Nirmal Polythread Industries Private Limited	366/2, New Agrawal Udhog Nagar Palda, Nimawar Road,	Indore	452020	Madhya Pradesh	nirmalpolythrea-dindustries@gmail.com
25	P.Chand Export	Right Portion Upper Ground Floor Lhs., 7,8a,8b Kh No.122/6/1, Ext Lal Dora Main Burari Road, Near Rajmandir Mart & Vishal Mega Mart, Burari	North Delhi	110084	Delhi	gurbakshmangotra91@gmail.com
26	Pack It Up Propack Llp	Office No.117, Lodha Supremus-li Road No.22, Wagle Estate, Nsil B Wing,	Thane	400604	Maharashtra	shyam.daga146@gmail.com
27	Pack Pro Fibc Private Limited	F.No-50104, Pine Block Indu Fortune Fields Garde, Kukatpally Tirumalagiri Hyderabad	Hyderabad	500072	Telangana	packpro.fibc@gmail.com
28	Proks Plastics Private Limited	357/92,Waghjai Nagar, Kharabwadi, Taluka Khed	Chakan	410501	Maharashtra	aditya.laddha@proks-group.com
29	Ralin Polymers Private Limited	Plot No.91-B,92-A, Industrial Area No.1, A.B. Road, Dewas	Dewas	455001	Madhya Pradesh	rahul@ralinpolymers.com
30	Ramco Plastic	Flat No. A-2601, Amanda Hiranandani Meadows, Opp. Punjani Indstl Estate, Gladys Alvares Road,	Thane	400610	Maharashtra	vipul.ramcoplastic@gmail.com
31	Rave Transit Private Limited	1st Floor, F/N-1 D, Unique Pearl, O, Swami Vivekanand Club, Noapara,	North (24, Pgs)	700157	West Bengal	ravetransitpvt.ltd@gmail.com
32	RsdC Industries Private Limited	67,Gangotri Industrial Estate, Opp Panchratna Ind Estate,	Ahmedabad	382449	Gujarat	rsdc2001@gmail.com
33	Salasar Technotex Private Limited	Khasra No.1540, 1568, Village Gidani, Tehsil Maujmabad,	Jaipur	303008	Rajasthan	salasar@pashu-patigrp.com
34	Shree Radhekrishna Extrutech Private Limited	630-B, Sardar Patel Estate Nr.Laxmanpura Patia, Dhamatvan,	Ahmedabad	382435	Gujarat	account@radhekrishnaexports.com
35	Shree V.K Plastic	Garra Khurd,Main Road Rawanwadi,	Gondia	441601	Maharashtra	official.powerrope@gmail.com
36	South India Polypro Private Limited	No. 41/19, Venkatachalam Street Choolai	Chennai	600003	Tamil Nadu	southindiapolypro@gmail.com
37	Spd International	Plot No-1147/D,Mahanadi Vihar Po-Naya Bazar	Cuttack	753004	Orissa	partha2015.pd@gmail.com
38	Swastk Moulding & Plastics	Sehnal Road, 137 New Town, Sehnal Road Ratia,	Fatehabad,	125051	Haryana	monakgoyal@gmail.com
39	Takemoto Yohki India Private Limited	Plot No. Pe-99-100 & 105-106, Sannand-li Vill. Bol, Industrial Estate Gidc	Ahmedabad	382170	Gujarat	sumit.agarwal@takemotoindia.com