



PLEXCONCIL - The Plastics Export Promotion Council

PLEXCONNECT[®]

Edition 54, December 2023

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As we enter the last month of the calendar year, we hope that you had a wonderful festive season and are now ready once again to navigate the ever-evolving landscape of our industry. After about six months of dampening exports this financial year, plastics exports witnessed positive growth in October, higher by 9.4% to stand at USD 933 million, as compared to USD 852 million in October 2022. Cumulative value of plastics export during April 2023 – October 2023 was USD 6,513 million as against USD 7,232 million during the same period last year, registering a decline of 9.9%.

While we do hope that this trend continues for the rest of the financial year, it is imperative that we not only stay ahead of the curve but also lead with purpose and responsibility. On this note, it is with great pride and enthusiasm that I share with you some key initiatives that the Council has undertaken in this past month. As part of our efforts to promote Indian plastics exports, the Council recently organized buyer-seller meetings with Central American countries of Guatemala, El Salvador, Honduras and Mexico with the support of the Indian embassies in Guatemala (concurrently accredited to El Salvador and Honduras) and Mexico. Promotional meetings were also held with stakeholders in Costa Rica with support from the Embassy of India in Panama. Furthermore more, we had a fruitful meeting with Embassy of India, Washington DC and active discussions were held regarding making deeper in roads into the American market and reaching out to retail chains such as Walmart, Costco, Target etc who may be interested in sourcing plastic goods from India. Central America is an emerging market and not only presents immense opportunities for exports, but its strategic location makes it the ideal gateway for North and South American continents.

On the other hand, the Council will also be leading one of its largest trade delegations of 73+ participants under the India Pavilion to ARABPLAST in UAE in the month of December and we are excited about the new opportunities that the post CEPA phase holds for bilateral trade in UAE>

Our commitment to sustainable practices is not just a moral imperative; it is a strategic necessity. In this issue, we share some perspectives on sustainability in injection moulding process. We are steadfast in our dedication to reducing environmental impact while maintaining the highest standards of quality by incorporating sustainable materials, optimizing processes, and investing in cutting-edge technologies.

In parallel with our commitment to sustainability, we also interviewed Hemant Mutha of Jain Irrigation about the PVC foam board industry and how these have become integral components in various applications while remaining cognizant of the environmental concerns associated with PVC.

Understanding the pivotal role additives play in the plastics industry, we have taken a closer look at formulations that not only enhance performance but also prioritize environmental responsibility. We also invited renowned expert, Anil Kumar Bhansali, Head of Treasury & ED, Finrex Treasury Advisors to share important nuggets of information on Trade Receivable Discounting System (TReDS), an online exchange set up under the approval of RBI to facilitate discounting of invoices and Bills of exchange on a PAN India basis. Its purpose is to provide MSMEs working capital at competitive rates through an open bid process through multiple financiers. Our feature on Product of the Month is PE & PP Cordage and ropes and we have covered Guatemala under our section, Countryscape. All this in addition to news and views from around the world.

As we embark on the journey ahead, I encourage each one of you to embrace innovation, challenge the status quo, and contribute your unique talents towards our collective goal of a greener, more sustainable future.

Until then, we wish you all the very best.

Warm regards,

Hemant Minocha
Chairman

PLEXCONNECT 2024 Promotion during TAPMA – AGM on 01st October 2023, Chennai | Southern Region:

Plexconcil Southern Region associated with TAPMA during their AGM which was held on 1st October 2023 at Hotel Ramada Inn, Egmore. The Council thanked the TAPMA committee for providing Plexconcil an opportunity to present PLEXCONNECT 2023, India's ONLY Export Focused Exhibition for the Indian Plastic Industry to be held in Mumbai from 7-9, June 2024.

The presentation highlighted around the export potential, the expectation for the exhibitors and visitors at the show, and for the members of TAPMA to save the dates to either participate or visit the PLEXCONNECT 2024.

FIEO - Eastern Region Export Excellence Award Function - 5th October 2023, Kolkata | Eastern Region:

Above award function organised by FIEO in Kolkata. Smt. Anupriya Patel, Minister of State, Ministry of Commerce & Industry, Government of India was the Chief Guest at this function. Ms Rowan Ainsworth, Consul General, Australian Consulate, Kolkata also attended the function. Mr Nilotpal Biswas, RD represented the Council at this function.

Virtual Meeting to discuss the Rules of Origin issues under review of India's existing FTAs with Japan and Korea on 06th October 2023 | Southern Region:

A Virtual Meeting was organised by DoC on 06th October 2023 under the chairmanship of Shri Tapan Majumder to discuss the issues related to the Rules of Origin (including the Product Specific Rules) in Japan & Korea FTAs. Plexconcil was represented by Mr. Ruban Hobday, Regional Director – South.

IGNITE Maharashtra: Nagpur District, 09th October 2023 | Western Region:

Plexconcil participated at IGNITE Maharashtra : Industry- Government Networking for Inclusive Transformation and Empowerment organised at Conference Hall, Vanamati, Nagpur, Maharashtra on 09.10.23. The Council was represented by Mrs. Bharti Parave, Asst. Director & Mr. Manish Tulsian Asst. Director Plexconcil Mumbai and delivered a presentation on the prospects in the plastic export industry and an overview of export policies.



Vibrant Gujarat- Vibrant Panchmahal District, 09th October 2023 | Western Region:

To give a boost to trade in the Gujarat state and for investment promotion, Vibrant Gujarat- Vibrant District Panchmahal was organized at Halol, Panchmahal on 9th October, 2023. During the program, session on Exports was also organized. PLEXCONCIL participated and gave presentations on opportunities for Plastic Exports. The Council was represented by Mr. Naman Marjadi, Asst Director, PLEXCONCIL, Ahmedabad.

Vibrant Gujarat- Vibrant Vadodara District, 10th October 2023 | Western Region:

10th Vibrant Gujarat Global Summit is being organized in the month of January 2024. As a precursor to this summit, series of programs are being organized in various districts. Vibrant Gujarat- Vibrant District Vadodara program was organized at Pandit Deendayal Upadhyay Nagar Gruh, Vadodara on 10th October, 2023. During the program, seminar on export promotion was organized. PLEXCONCIL participated and gave presentations on opportunities for Plastic Exports. The Council was represented by Mr. Naman Marjadi, Asst Director, PLEXCONCIL

► Council Activities



IGNITE Maharashtra: Dhule District, 12th October 2023 | Western Region:

Plexconcil participated at IGNITE Maharashtra : Industry- Government Networking for Inclusive Transformation and Empowerment organised at Hotel Ganpati Palace, Dhule, Maharashtra on 12.10.23. The Council was represented by Mr. Manish Tulsian, Asst. Director Plexconcil Mumbai and delivered a presentation on the prospects in the plastic export industry and an overview of export policies.

IGNITE Maharashtra: Jalgaon District, 13th October 2023 | Western Region:

Plexconcil participated at IGNITE Maharashtra : Industry- Government Networking for Inclusive Transformation and Empowerment organised at Hotel President Cottage Jalgaon, Maharashtra on 13.10.23. The Council was represented by Mr. Manish Tulsian, Asst. Director Plexconcil Mumbai and Presented on the opportunities within the plastic export sector and discussed various export-related policies.





IGNITE Maharashtra: Ahmednagar District, 14th October 2023 | Western Region:

Plexconcil participated at IGNITE Maharashtra : Industry- Government Networking for Inclusive Transformation and Empowerment organised at Ahmednagar on 14.10.23. The Council was represented by Mr. S V Amlekar (Special Invitee of COA) represented council. Through his presentation, he has explained about the Plexconcil activities in boosting Plastic exports and also explain export opportunities and explained multiple export policies



Interactive Session with Shri Bhupinder Singh Bhalla, IAS, Secretary, Ministry of New and Renewable Energy, Government of India, 20th October 2023, Kolkata | Eastern Region:

Above interactive session organised by EEPCINDIA in Kolkata. Shri Bhupinder Singh Bhalla, IAS, Secretary, Ministry of New and Renewable Energy, Government of India addressed the gathering & this was followed by an interactive session. Mr Nilotpall Biswas, RD represented the Council at this function.



IGNITE Maharashtra: Nashik District, 16th October 2023 | Western Region:

Plexconcil participated at IGNITE Maharashtra: Industry- Government Networking for Inclusive Transformation and Empowerment organised at Nashik Engineering Cluster, Maharashtra on 16.10.23. The Council was represented by Mrs. Bharti Parave, Asst. Director Plexconcil Mumbai and Offered a presentation about the plastic export opportunities and explained multiple export policies.

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Hemanth Mutha

**Head of sales & Marketing, Building Products,
Jain Irrigation Systems limited**

Overcoming Perceived Limitations for Diverse Applications

PVC foam board stands out for its durability, water resistance, and ease of fabrication. With excellent thermal properties, it finds diverse applications indoors and outdoors, including signage, advertising displays, furniture, and building construction. A preferred alternative to wood and aluminium, PVC foam board's smooth, scratch-resistant surface makes it an ideal choice for furniture.

As we delve into the nuances of this versatile material we explore its applications, market trends, and the driving forces behind its rapid growth with Hemanth Mutha, Head of Sales & Marketing – Building Products – Jain Irrigation Systems, Ltd. He also sheds light on the industry's commitment to sustainability, underlining the pivotal role PVC Foam Boards play in fostering eco-friendly practices and contributing to a more sustainable future.

(excerpts)

On Market Overview

What are the current trends and demands for PVC foam boards in different regions/markets?

The export demand trends for PVC foam boards have been fairly stable over the last year or two. Especially after the Covid aftermath having had its massive impact on the transportation cost and un-

certainities across countries. Stability on such external factors have helped. USA, Europe have been stable in demand, not growing drastically though, but few other markets have done well.

Over the last 30+ years that we have been manufacturing and exporting PVC Foam boards, the major markets for us have been and continue to be USA and Europe. The Middle East always had some or the other demand and we have always had regular customers/dealers in those markets. Oceania is one sector which we feel has seen and will probably see requirements/acceptance for good quality PVC Foam Boards from India, whether that can be labelled as an Emerging market for us, time will tell.

What are some of the strategies being adopted by PVC foam board manufacturers, including companies such as Jain Irrigation, to capture emerging markets and remain competitive?

One of the foremost things that has continued to keep us relevant in the marketplace over the last 3 decades has been constant Innovation in Products as well as Applications. Moving from traditional applications like signages and digital printing, we offer products for versatile applications like wall cladding, exterior cladding, interior furniture, fall ceilings, frames and profiling, industrial, electrical switchboards and control panels etc we have come a long way. Being competitive is not just about price, but about innovation, operational ease of the entire buying process, top notch customer service, consistency of quality and supply etc.



How significant is the role of JVs and international collaboration to the growth of exports?

Over the years while servicing markets in North America and Europe we identified one factor that would help us do better in the marketplace was faster order turnaround time. We acquired a company in the USA to manage post operation and finishing on the pre-cut sheets supplied from our parent plant in India. This gave us the edge as sheets of various colours and finishes could be provided faster to the customers there while we continued supplying the base sheet/foam board from India. It was a win - win. Similarly, the need of servicing the European market faster led us to set up a factory in Ireland which now manufactures and sells material majorly to Europe.

During this shift, leveraging existing capacities in our Indian plant, we explored new markets, territories, and applications, ensuring continuous growth. A consistent practice has been hiring mainly local talent from the plant's geography, fostering regional employment, socio-economic development, and social harmony.

What are the challenges faced by exporters? What other economic factors impact international trade in PVC foam boards?

Indian exporters have and continue to face the challenges of price of PVC Foam boards vis-a-vis low-cost manufacturers from Asia. These challenges not only affect growth of businesses in markets like North America, Europe, Middle East and Oceania but pose a bigger barrier to entry into great potential markets in Asia (including SAARC), Africa and South America.



On Growth Drivers

What technological advancements are driving the growth of the PVC foam board industry?

The PVC Foam boards are actually quite an evolved product, be it in terms of sizes, thicknesses, finishes, density, range and eventually applications. However, advancements in post operation of these sheets will be the next big leap forward. Factory made PVC Foam boards in finished form - direct application form will be the next big driving factor. For eg. Pre Printed with high abrasion resistance Sheets for furniture applications, Factory made extruded Frames for doors and windows, Glue Based - hot stamping Pre Laminated sheets for many indoor applications. While some of these solutions have been around for a while, they need to be at customer friendly prices, have mass scale production and be long lasting.

How are changing trends/ development of alternate products (Balsa) influencing the demand for PVC foam products?

Over the last few years we are observing the influx of several wood alternative panel materials being offered in the market like Honeycomb sheets, WPC sheets (non-decking), Mineral Fibre Sheets, Composite sheets, Balsa wood etc. While all of them have characteristic features that are helpful for

certain applications, we rarely see any of them having the same versatility of that of the PVC Foam boards across a variety of applications. Hence, we think that while everyone will have their space under the sun, it seems unlikely that they may cannibalise the PVC Foam boards market much.



On Government Policies & Support

How can government incentives or policies help in promoting the export of PVC foam boards from India?

As Indian manufacturers, it is imperative for us to analyze the support and facilitative measures extended by other Asian countries to their PVC foam board exporting manufacturers in the global market. This comprehensive examination should encompass export-related subsidies, documentation and operational efficiency, financial incentives, and potential benefits related to raw material or input costs. While we acknowledge pricing variations based on quality differentials, a deeper analysis becomes necessary when substantial pricing differences exist for similar product offerings, particularly when utilizing the same grade of PVC resin as raw material.



On Sustainability

What eco-friendly manufacturing practices are being employed in the production of PVC foam boards?

We are amongst India's first PVC Foam board manufacturers to produce sheets/boards which have been made without the use of heavy/harmful metals like Lead and Cadmium that directly/indirectly cause harm to nature and mankind, something we have been doing for 3 decades now. Our Plant - one of the largest PVC Foam Board plants in Asia was also amongst the first ones to have ISO 14001 and ISO 45001 certifications in line with all environmentally friendly, human, safety and health measures.

Furthermore, considering the volume of our manufacturing we accumulate side trims in fairly large quantities during Extrusion and is usually kept aside either for disposal or to be sold. We regrind and reuse these trims into Recycled Sheets that are suitable in packaging as well as furniture applications.

On Applications

What are the diverse applications of PVC foam boards across different industries?

PVC foam boards have demonstrated versatility across various applications in the USA, North America, Europe, and the Middle East. In the USA and North America, specialized sheets are utilized for exterior cladding, advertising signage, digital printing, wall paneling, partitions, and furniture in areas prone to water splashing. European markets embrace advertising and furniture-grade PVC foam boards for signage, digital printing, furniture, and paneling applications. In the Middle East, in-

dustrial-grade sheets find extensive use in electrical control panels and switchboards, in addition to advertising and digital printing. While advertising and signage remain key drivers, the fastest growth in recent years has been observed in the furniture and interiors sector. PVC foam boards stand out as a rare panel material, suitable for both automatic machines (for modular furniture) and carpentry hand tools, making them ideal for various applications, including doors and paneling. The industrial sector may also witness acceptance and growth, though with a focus on rigid PVC boards/sheets rather than foam boards.



Can you provide examples of innovative applications or projects utilizing PVC foam boards?

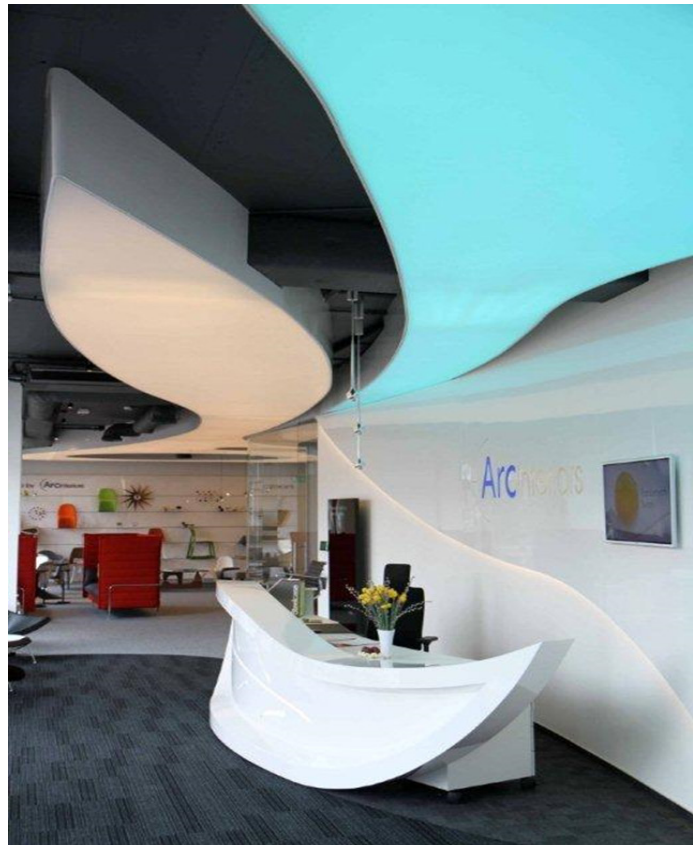
We have ideated, supported, supplied to many innovative applications over the years and across geographies. Applications like base acoustic paneling material inside Auditoriums, Foam filled Wall Paneling for Clean Rooms in Biotech Labs, Base sheet for drying of Fly Ash bricks on construction sites, Electrical Switchboard and Control Panel application to name a few.



On Quality & Standards

What are the quality standards and certifications relevant to PVC foam boards?

Our PVC Foam boards predominantly comply with the American Standards (ASTM) and German Standards (DIN) which due to their stringency, novelty and depth do get undeniably accepted across the Globe. There are certain country specific Fire Retardancy/ Flammability standards that are required to be complied with. In our case we do cover the French, British and US standards as global acceptance and image requires compliance to the most stringent standards.



On R&D

What are some of the ongoing research and development efforts to improve the quality and durability of PVC foam boards?

Over the past 30 years, our relentless commitment to innovation and global exposure has enabled us to produce top-tier foam boards. Our dedication to excellence encompasses thickness, density, surface finish, and porosity. Recognizing the importance of continuous improvement, we pioneered backward integration in the Indian market, investing in extrusion machine companies and tools companies in India and Europe. Our collaboration with both in-house and external global suppliers focuses on enhancing density, thickness tolerance, visual finishes, and overall quality for PVC foam boards. Emphasizing that quality is not just a result but an intentional pursuit, we prioritize constant improvement to ensure superior performance and longevity.



On the Competitive Landscape

Who are the major players in the global PVC foam board market?

Our brand EX-CEL PVC Sheets, over the years, has faced competition from many good quality foam board companies globally. Some of the prominent ones are Brett Martin, 3A, Koemmerling, Veka, Palram etc.

On the Future Outlook

What are the anticipated challenges and opportunities for the PVC foam trade in the coming years?

Manufacturers from India can take great confidence from the fact that there has been a rise in the number of manufacturers and exporters from India. Truly opportunities will open up on two counts – first when manufacturers are able to offer range, variety and good quality consistently at competitive pricing and secondly, when the government can extend benefits that our counterparts in some of the other Asian countries receive as exporters.

How do you foresee advancements in technology shaping the future of PVC foam products?

While PVC foam boards offer numerous advantages, they have been perceived to have limitations in thickness tolerance and durability, particularly for exterior applications. Our company has proactively addressed these concerns by developing exterior color and finishing treatments at our USA plant, successfully promoting their use in exterior cladding applications. Ongoing efforts in research and development focus on advancements in machinery, post-operation processes, and raw material compounding formulations, aiming to enhance the versatility and widen the application scope of PVC foam boards.

Are there any upcoming regulations or market trends that might impact the PVC foam board industry?

Market trends are a mix of both being favourable and unfavourable. Unfavourable, when low cost manufacturers and suppliers pose a threat to good quality manufacturers in especially emerging markets. There is also always the likely threat of newer paneling/board materials that are introduced in the marketplace and are heavily promoted within the PVC Foam boards application sectors.

However, globally, the need for boards/sheet/panel material to replace wood/plywood has been on the rise and that is significant factor driving growth for the PVC Foam board sector. PVC Foam Boards/ Sheets are probably the best technically superior alternatives to wood-based panel material that are available in the marketplace for a whole host of applications.

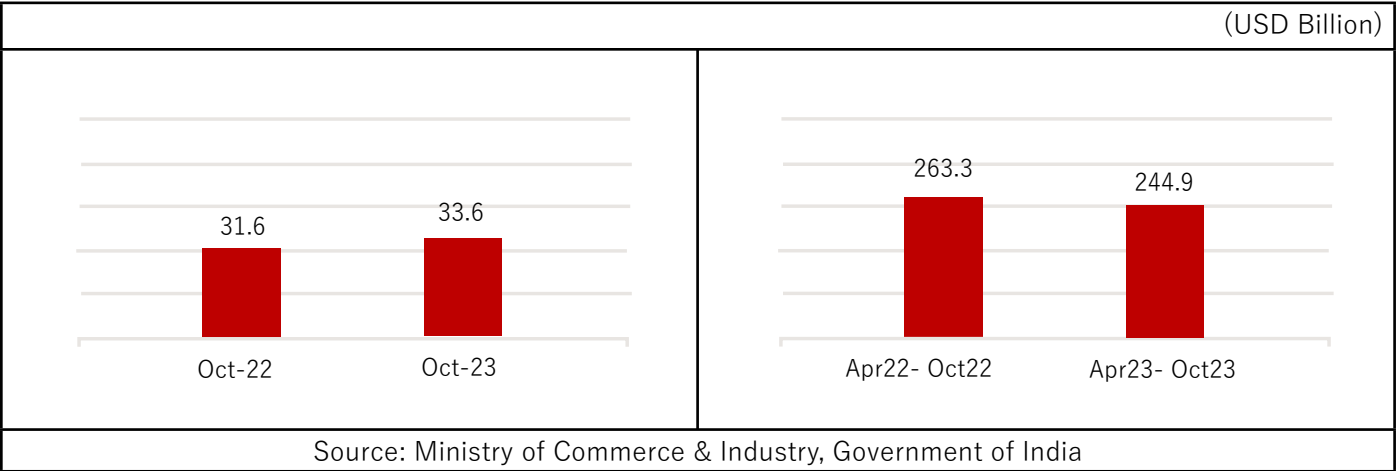


Export Performance – October 2023

TREND IN OVERALL EXPORTS

India reported merchandise exports of USD 33.6 billion in October 2023, an increase of 6.2% from USD 31.6 billion in October 2022. Cumulative value of merchandise exports during April 2023 – October 2023 was USD 244.9 billion as against USD 263.3 billion during the same period last year, reflecting a decline of 7.0%.

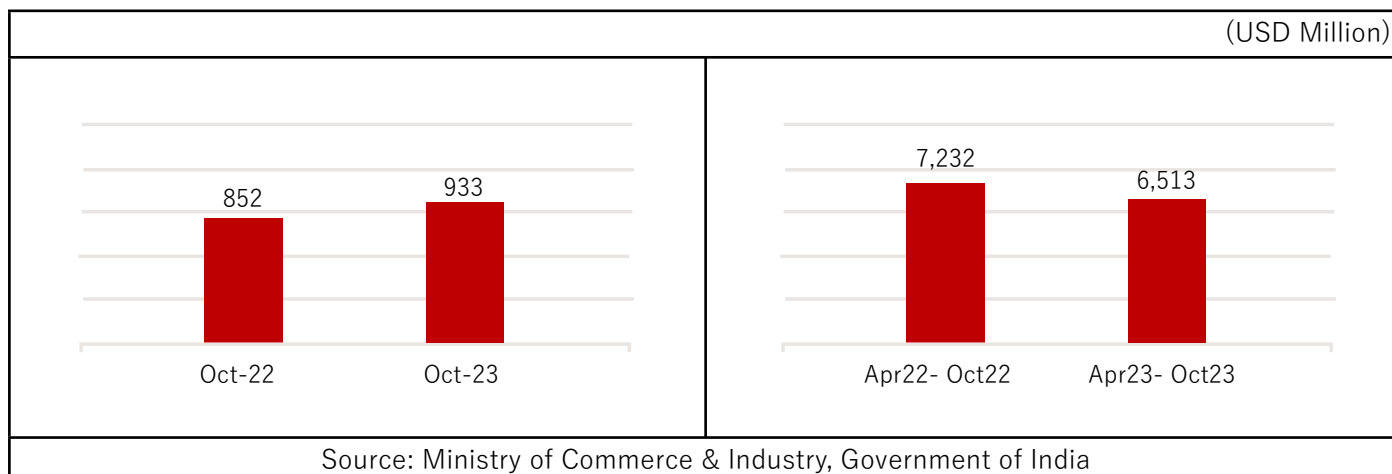
Exhibit 1: Trend in overall merchandise exports from India



TREND IN PLASTICS EXPORT

During October 2023, India exported plastics worth USD 933 million, higher by 9.4% from USD 852 million in October 2022. Cumulative value of plastics export during April 2023 – October 2023 was USD 6,513 million as against USD 7,232 million during the same period last year, registering a decline of 9.9%.

Exhibit 2: Trend in plastics export by India



PLASTICS EXPORT, BY PANEL

In the month of October 2023, a notable surge in exports was observed across almost all of the product panels such as Floorcoverings, leathercloth & laminates; FRP & Composites; FIBC, Woven sacks, Woven fabrics, Tarpaulin; Packaging items - flexible, rigid; Cordage, fishnets & monofilaments; Medical items of plastics; Plastic pipes & fittings; Plastic films and sheets; Writing instruments & stationery; Consumer & houseware products; Plastic raw materials and Human hair & related products. Miscellaneous products and items nes was the only panel that reported a negative growth during this period.

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

Panel	Oct-22	Oct-23	Growth	Apr 22- Oct 22	Apr 23- Oct 23	Growth
	(USD Mn)	(USD Mn)	(%)	(USD Mn)	(USD Mn)	(%)
Consumer & houseware products	59.3	63.0	+6.3%	434.1	429.4	-1.1%
Cordage, fishnets & monofilaments	18.5	21.7	+17.3%	158.6	149.7	-5.6%
FIBC, woven sacks, woven fabrics, & tarpaulin	96.9	116.8	+20.5%	884.1	774.5	-12.4%
Floorcoverings, leathercloth & laminates	39.6	56.7	+43.3%	338.0	399.2	+18.1%
FRP & Composites	27.9	37.2	+33.6%	254.6	264.1	+3.7%
Human hair & related products	45.4	67.7	+49.1%	378.3	415.0	+9.7%
Medical items of plastics	39.1	45.1	+15.3%	286.9	307.6	+7.2%
Miscellaneous products & items nes	87.2	48.7	-44.1%	585.6	447.6	-23.6%
Packaging items - flexible, rigid	45.6	53.8	+18.1%	382.0	360.6	-5.6%
Plastic films & sheets	129.4	145.0	+12.1%	1,128.2	973.7	-13.7%
Plastic pipes & fittings	20.9	23.8	+14.3%	174.7	162.0	-7.3%
Plastic raw materials	222.0	230.8	+4.0%	2,070.7	1,675.8	-19.1%
Writing instruments & stationery	20.6	22.1	+7.5%	156.3	153.3	-1.9%
	852.3	932.6	+9.4%	7,232.0	6,512.5	-9.9%

Source: Ministry of Commerce & Industry, Government of India

Exports of **Consumer & houseware products** improved by 6.3% in October 2023. This growth was primarily due to higher sales of Tableware and kitchenware made of plastics (HS Code 392410); Builders ware of plastics (392590); and Furniture made of plastics (94037000). It was seen that India exported more of Builders ware of plastics to the United States of America and the United Kingdom; and Furniture made of plastics to Panama.

Exports of **Cordage, fishnets & monofilaments** experienced a significant increase of 17.3% in October 2023 due to greater sales of Made-up fishing nets of nylon (560811) to countries like Chile, Kenya, Sri Lanka and the United Kingdom.

In October 2023, the export of **FIBC, woven sacks, woven fabrics, & tarpaulin** demonstrated a significant positive growth of 20.5% due to increased sales of Sacks and bags of plastics (39232990) to certain African countries, and Flexible intermediate bulk containers (630532) in general.

Export of **Floor coverings, leather cloth & laminates** surged by 43.3% during October 2023 on account of higher sales of Floorcoverings of PVC (391810) and Textile fabrics impregnated, coated, covered or laminated with plastics (590390) to the United States of America. The export of Decorative laminates (48239019) also contributed to the growth.

Export of **FRP & Composites** was up by 33.6% on account of higher sales of Articles of plastics and articles of other materials of heading 3901 to 3914, n.e.s (39269099). This export sector had faced challenges due to the economic downturn and elevated manufacturing costs in Europe, but it has now rebounded with increased sales.

Export of **Human hair & related products** were up by 49.1% in October 2023 due to higher sales of Human hair, unworked, whether or not washed or scoured (05010010) to Myanmar and Human hair, dressed, thinned and bleached (67030010) to China.

Medical items of plastics continued to perform well and its exports were up by 15.3% in October 2023 due to increase in sales of Spectacle lenses (900150) - which has contributed immensely to the positive growth in export of this particular panel. India reported its highest-ever monthly export of Spectacle lenses in October 2023.

Export of **Miscellaneous products & items** fell by 44.1% in October 2023 due to lower shipments of Optical fibres, optical fibre bundles and cables (90011000).

Packaging items - flexible, rigid export surged by 18.1% on account of higher sales of Sacks and bags of plastics (392321), Carboys, bottles, flasks and similar articles for the conveyance or packaging of goods made up of plastics (392330) and Articles for the conveyance or packaging of goods of plastics (39239090). India mainly exports Packaging items - flexible, rigid to North America and Europe.

Plastic films & sheets export were higher by 12.1% in October 2023 on account of improved sales of Self-adhesive tape of plastics (39199090), Films and sheets of polymers of ethylene (392020), and Films and sheets of polyethylene terephthalate (39206220). Indian exporters of plastic films and sheets informed that the export market has begun to show signs of improvement since the fag-end of June 2023 quarter, with demand for the BOPP starting to recover. They are, however, concerned about the introduction of new capacities and an expected surge in supply of BOPET films.

Export of **Plastic pipes & fittings** increased by 14.3% due to higher sales of rigid tubes and pipes of polymers of vinyl chloride (391723) and Fittings like joints, elbows and flanges of plastics for pipes (391740). The stabilisation in PVC prices helped increase the offtake.

Plastics raw materials exports increased by 4.0% in October 2023 due to a rise in sales of Polyethylene having a specific gravity of 0.94 or more (390120), Linear low density polyethylene (390140) and Other acrylic polymers (390690). Export of Low-density polyethylene from India reported its highest-ever export in as many as two years in October 2023.

Export of **Writing instruments & stationery** improved by 7.5% in October 2023 due to increase in sales of Ball-point pens (960810) to Algeria, Kenya, and Thailand.

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

HS Code	Description	Apr 22- Oct 22	Apr 23- Oct 23	Growth
		(USD Mn)	(USD Mn)	(%)
63053200	Flexible intermediate bulk containers	540.4	458.7	-15.1%
90011000	Optical fibres, optical fibre bundles and cables	384.7	261.9	-31.9%
39076190	Polyethylene terephthalate: Other primary form	426.1	194.4	-54.4%
67030010	Human hair, dressed, thinned, bleached or otherwise worked	281.3	308.6	+9.7%
39269099	Articles of plastics and articles of other materials of heading 3901 to 3914, n.e.s: Other	250.0	260.1	+4.0%
39232990	Other sacks and bags, incl. cones, of plastics	259.5	244.1	-5.9%
39021000	Polypropylene, in primary forms	201.3	178.4	-11.4%
48239019	Decorative laminates	166.4	174.2	+4.7%
39202020	Plates, sheets, film, foil and strip, of non-cellular polymers of ethylene: Flexible, plain	169.0	112.8	-33.2%
39269080	Articles of plastics and articles of other materials of heading 3901 to 3914, n.e.s: Polypropylene articles, not elsewhere	135.1	119.9	-11.3%
39206220	Plates, sheets, film, foil and strip, of non-cellular polyethylene terephthalate: Flexible, plain	127.6	117.5	-7.9%
39232100	Sacks and bags, incl. cones, of polymers of ethylene	131.6	118.6	-9.9%
39069090	Other acrylic polymers, in primary forms	116.3	119.9	+3.1%
39076990	Polyethylene terephthalate: Other primary form	153.6	86.9	-43.4%
39239090	Articles for the conveyance or packaging of goods, of plastics: Other	107.9	107.2	-0.7%
05010010	Human hair, unworked; whether or not washed or scoured	87.9	97.1	+10.5%
39202090	Plates, sheets, film, foil and strip, of non-cellular polymers of ethylene: Other	99.5	85.4	-14.2%
39046100	Polytetrafluoroethylene, in primary forms	89.4	69.3	-22.5%
90015000	Spectacle lenses of materials other than glass	83.4	103.9	+24.5%
96081019	Ball-point pens	80.6	81.7	+1.3%
90183930	Cannulae	81.4	76.2	-6.3%
39011090	Polyethylene with a specific gravity of < 0,94, in primary forms: Other	75.7	63.4	-16.2%
59039090	Textile fabrics impregnated, coated, covered or laminated with plastics other than polyvinyl chloride or polyurethane: Other	70.8	105.3	+48.7%
56074900	Twine, cordage, ropes and cables of polyethylene or polypropylene	72.4	65.3	-9.7%
39219099	Plates, sheets, film, foil and strip, of plastics, reinforced, laminated, supported or similarly combined with other materials: Other	67.3	67.8	+0.8%
39046990	Other fluoro-polymers of vinyl chloride or of other halogenated olefins, in primary forms	56.3	48.8	-13.4%
96032100	Tooth brushes	56.8	47.5	-16.3%
39219094	Plates, sheets, film, foil and strip, of plastics, reinforced, laminated, supported or similarly combined with other materials: Flexible, metallised	65.5	43.3	-33.9%
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	62.8	56.5	-10.0%

39206919	Plates, sheets, film, foil and strip, of non-cellular polyesters, not reinforced, laminated, supported or similarly combined with other materials: Other	57.2	54.6	-4.5%
39073010	Epoxy resins	61.4	33.2	-45.9%
39206290	Plates, sheets, film, foil and strip, of non-cellular polyethylene terephthalate, not reinforced, laminated, supported or similarly combined with other materials: Other	52.2	40.5	-22.3%
39129090	Other cellulose and chemical derivatives thereof, n.e.s., in primary forms	52.3	58.6	+12.0%
39241090	Other tableware and kitchenware, of plastics	53.6	56.6	+5.6%
39095000	Polyurethanes, in primary forms	52.7	45.5	-13.7%
39199090	Self-adhesive plates, sheets, film, foil, tape, strip and other flat shapes, of plastics, whether or not in rolls > 20 cm wide: Other	54.7	63.8	+16.7%
39140020	Ion-exchangers based on polymers of heading 3901 to 3913, in primary forms	50.1	45.5	-9.2%
39014010	Linear low-density polyethylene	41.9	57.5	+37.5%
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	48.8	45.5	-6.6%
39219096	Plates, sheets, film, foil and strip, of plastics, reinforced, laminated, supported or similarly combined with other materials: Flexible, laminated	52.4	37.0	-29.4%
39119090	Other polysulphides, polysulphones and other polymers and prepolymers produced by chemical synthesis, n.e.s., in primary forms	43.8	59.5	+35.8%
59031090	Other textile fabrics impregnated, coated, covered or laminated with polyvinyl chloride	43.1	42.9	-0.3%
39235010	Stoppers, lids, caps and other closures, of plastics	41.8	38.7	-7.3%
39100090	Silicones in primary forms: Other	42.8	30.4	-28.9%
39249090	Other household articles and toilet articles, of plastics	41.9	41.2	-1.7%
39172390	Rigid tubes, pipes and hoses, and fittings therefor, of polymers of vinyl chloride: Other	41.0	40.9	-0.4%
39201019	Plates, sheets, film, foil and strip, of non-cellular plastics, not reinforced, laminated, supported or similarly combined with other materials: Other	36.9	40.1	+8.8%
39206929	Plates, sheets, film, foil and strip, of non-cellular polyesters, not reinforced, laminated, supported or similarly combined with other materials: Other	40.8	34.9	-14.4%
39019000	Other ethylene-alpha-olefin copolymers, having a specific gravity of less than 0.94	42.3	34.7	-17.9%
39011020	Low density polyethylene	59.4	14.5	-75.7%

Source: Ministry of Commerce & Industry, Government of India

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Anil Kumar Bhansali

Head of Treasury and Executive Director,
Finrex Treasury Advisors LLP

TRADE RECEIVABLE AND DISCOUNTING SYSTEM (TReDS)

BACKGROUND

Micro, Small and Medium Enterprises (MSMEs) play an important role in the economic development of India. The Indian MSME sector is the backbone of the national economic structure and has unremittingly acted as the mainstay for the Indian economy, providing it resilience to ward off global economic shocks and adversities. With around 63.4 million units throughout the geographical expanse of the country, MSMEs contribute around 6.11% of the manufacturing GDP and 24.63% of the GDP from service activities as well as 33.4% of India's manufacturing output. They have been able to provide employment to around 120 million persons and contribute around 45% of the overall exports from India. But despite their mammoth contribution towards stoking up the economic growth and contribution to Gross Domestic Product MSMEs, continue to face constraints in obtaining adequate finance, particularly in terms of their ability to convert their trade receivables into liquid funds.



RBI'S STEPS ON TRADE RECEIVABLE BILL DISCOUNTING PLATFORM

An online bill discounting platform, was being operated by NSE with SIDBI as a single financier since 2009 called NTREES. RBI floated a concept paper for launching Electronic Bill Discounting Exchange in 2013. It issued TReDS guidelines on 3rd December 2014. NSE and SIDBI jointly applied to operate the TReDS exchange. NSE-SIDBI receive in-principle approval from RBI on 2nd December 2015. RXIL incorporated on 25th February 2016 and launched India's 1st TReDS Exchange on 9th January 2017.



WHAT IS TReDS

TReDS is an online exchange set up under the approval of RBI to facilitate discounting of invoices and Bills of exchange on a PAN India basis. Its purpose is to provide MSMEs working capital at competitive rates through an open bid process through multiple financiers. The TReDS will facilitate the discounting of both invoices as well as bills of exchange. Key participants to be the "MSME" (The seller), large corporates including Govt. departments and PSUs (The Buyer) and Banks & NBFC's (The Financier). Finance will be **"without recourse"** to MSME supplier. Thus it means the twin objectives of providing access to working capital and reduced cost to MSMEs. This will improve the liquidity in the MSME sector significantly. It is mandatory for all major PSUs to register on TReDS

within 90 days of the announcement. The public procurement policy states that 20% of all procurement by PSUs are to be made from MSMEs.

BENEFITS

To suppliers:

1. Easy, fast working capital finance at cheaper interest rates.
2. Without recourse/non-collateral based finance
3. Off balance sheet finance-sale of receivables.
4. One-time documentation, no need to engage with multiple banks.
5. Receipt of funds within two days from acceptance of bids.

To Buyers:

1. Saving on procurement cost through improved negotiation of financing terms from suppliers
2. Saving on finance cost by extending credit period
3. Off balance-sheet transactions
4. Digital-Platform – Lower administration cost for vendor financing, payments and settlements.

To financiers:

1. Opportunity to build quality PSL asset portfolio in MSME space.
2. Reduced operational cost alongwith improved reach to build clientele.
3. Ease of operation with minimum documentation
4. Facility to make better decision making through key information availability.



HOW THE SYSTEM WORKS:

1. Supplier delivers the goods/services (Outside TReDS)
2. Supplier logs in and uploads the invoice.
3. Validate the invoice, convert to factoring unit and publish for acceptance.
4. Buyer logs in and accepts the invoice.
5. Publish the factoring unit for bidding
6. Financiers bid against the factor
7. Accepts the bid (% interest as best bids)
8. Exchange generates the settlement file to debit financier and pay supplier.
9. Exchange debits the financiers bank account and credits the suppliers bank account
10. On due date, final settlement file is generated.
11. Exchange debit the Buyers bank account and credits the financiers bank account.

CONCLUSION:

Trade Receivables Discounting System (TReDS) is a digital platform to support micro, small and medium enterprises (MSMEs) to get their bills financed at a competitive rate through an auction where multiple registered financiers can participate. The RBI, thus by undertaking Trade Receivables Discounting System (TReD), has mechanized the financing of trade receivables of MSMEs from corporate buyers through two or more financiers. All the registered MSMEs can discount their bills of exchange or invoice through TReDS with a quoted price. This system will ensure the competitive pricing offer from the financier. The seller can opt for a financier of his choice. TReDS deals with discounting of both invoices and bills of exchange. It has been well-equipped with discounting and re-discounting of trade receivables thus facilitating higher volumes of transaction with better pricing. The concept of TReDS, an institutional mechanism for financing trade receivables on a secure digital platform has been introduced by RBI with an intention to decrease the financing concerns faced by MSMEs in India, Trade Receivable Exchanges, standardizes the process of funding MSMEs via Invoice Discounting and this will help the MSMEs in the long run to compete in the market. In the Union Budget 2020-21, the Government has announced app-based invoice financing products to obviate the problem of delayed payments of MSME. The mechanism may prove complementary to the TReDS platform and would further alleviate the problem of delayed payments.



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Mr. Prem Kumar Solanki



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POLYMER PRICE TRACKER (DOMESTIC MARKET) OCTOBER 2023

High Density Polyethylene (HDPE)			<ul style="list-style-type: none"> HDPE prices fell by Rs 9,000 per MT in October 2023 after remaining unchanged in September 2023. HDPE prices had moved up by Rs 1,000 per MT in August 2023. In October 2023, HDPE prices were cut by Rs 5,000 per MT in the first week of the month and by Rs 4,000 per MT later. Thereafter no price changes were announced.
			
Aug-23	Sep-23	Oct-23	
Linear Low-Density Polyethylene (LLDPE)			<ul style="list-style-type: none"> LLDPE prices slumped by Rs 9,000 in October 2023 after remaining stable in September 2023. LLDPE prices had inched up by 1,000 per MT in August 2023. In October 2023, HDPE prices were down by Rs 4,500 per MT in the first week of the month and by Rs 4,500 per MT later. Thereafter no price changes were announced.
			
Aug-23	Sep-23	Oct-23	
Low Density Polyethylene (LDPE)			<ul style="list-style-type: none"> LDPE prices augmented by Rs 1,000 per MT in October 2023. Prices had moved up by Rs 1,500 per MT in September 2023 and by Rs 1,000 per MT in August 2023. In October 2023, LDPE prices were hiked by Rs 1,000 per MT in the first week of the month. Thereafter no price changes were announced.
			
Aug-23	Sep-23	Oct-23	
Polypropylene (PP)			<ul style="list-style-type: none"> PP prices weakened by Rs 3,500 per MT in October 2023. PP prices had increased by Rs 2,500 per MT in September 2023 by Rs 4,000 per MT in August 2023. In October 2023, PP prices were reduced by Rs 1,500 per MT in the second week of the month and by Rs 2,000 per MT later. Thereafter no price changes were announced.
			
Aug-23	Sep-23	Oct-23	
Polyvinyl Chloride (PVC)			<ul style="list-style-type: none"> PVC prices dropped by Rs 10,000 per MT in October 2023 after remaining unchanged in September 2023. Prices were hiked by Rs 3,500 per MT in August 2023. In October 2023, PVC prices were slashed down by Rs 7,000 per MT in the first week of the month itself and by Rs 3,000 per MT later.
			
Aug-23	Sep-23	Oct-23	

Source: Industry, Plexconcil Research



Understanding Polymer Price Trends – November 2023

Understanding Polymer Price Trends – November 2023
The plastic industry has been experiencing varied trends in different segments as of early November. Polypropylene and PVC have been sluggish, while Polyethylene, particularly in the pipe segment, has shown positive signs. This uptick in Polyethylene is attributed to strong domestic demand, coinciding with national festivals in India. Despite the overall weak global market sentiment, international producers of these plastics have remained firm on their pricing, showing little willingness to negotiate. Indian manufacturers, in response, seem disinclined to reduce their prices, hoping to maintain a stable market.

In the Middle Eastern market, notable shifts are occurring. The top two producers from this region may face challenges in the Indian market, as local manufacturers and importers are reluctant to purchase at prices exceeding 1050-1100 USD. This resistance is due to the previous month's decreased demand and the aggressive pricing strategies of Indian producers.

Looking ahead to December, there is an expectation of stronger market dynamics for Polyethylene, specifically for the LLDPE (Linear Low-Density Polyethylene) and LDPE (Low-Density Polyethylene) types. A contributing factor is the absence of incoming imports for the next 15-20 days, which is likely to amplify domestic demand in India. Indian producers are also expected to hold back on any lifting schemes, which could further tighten the market.

The export landscape for Indian plastic products has been negatively impacted, particularly due to increased shipping costs and insurance premiums. These challenges are partly due to the ongoing conflict between Israel and Hamas, which has disrupted bilateral trade relations. A noteworthy development is the emerging focus on the FRP (Fibre Reinforced Plastic) industry. This sector is poised to make significant contributions to the export of composite parts, especially in the defense sector. Despite this new opportunity, the overall export percentage for plastic merchandise from India has declined in the current month.

This situation reflects the complexities of the global plastic industry, influenced by a mix of geopolitical factors, regional demands, and pricing strategies. The industry's future trends will likely be shaped by these dynamic factors, along with the evolving needs of sectors like defense and packaging.



Navigating Sustainable Injection Molding

“According to the Journal of Clean Production, injection moulding may be responsible of up to 90 per cent of the Global Warming Potential (GWP) created by the entire mould lifecycle, mainly caused by energy consumption.” – Interplas Insights

The Journal of Clean Production’s findings are a wake-up call to manufacturers, particularly as demand for injection moulding processes continue to grow. For example, the market for injection moulded medical devices plastics is expected to see booming growth between 2023 and 2030.

Injection moulding is used to manufacture a huge variety of parts and has several advantages. They include the ability to mould a wide variety of plastics, good repeatability, consistently high production with low waste and a low-cost-per-part — the latter is always a priority. Maintaining a low cost-per-part throughout the manufacturing process is vital for reducing costs and delivering a higher product value — from both the manufacturer’s and the customer’s perspective. While injection moulding can support this, manufacturers are also concerned about the energy costs of injection moulding, and how this effects sustainability and the bottom line. More than 90 per cent of the costs of injection moulding can be attributed to energy use. This mainly applies to the electricity used to power and operate the injection moulding machine. As a result, there has been some debate in industry about the cost and sustainability advan-

tages of hydraulic injection moulding versus all-electric machines.

Injection moulding machines powered by a hydraulic motor can produce higher energy levels and higher injection pressures, and the initial cost of the machine is lower. But there are also disadvantages with hydraulic machines. They include the machine’s high consumption of electric energy, because its hydraulic power is connected to an electric power unit that works at maximum capacity during every phase of the moulding process. So, how can the balance between business and sustainability be achieved?

From Values to Materials, Processes, and Plastic Innovation

In today’s business landscape, the urgency of sustainability is more pronounced than ever. Stakeholders, including consumers, industries, and governments, demand transparency regarding environmental, social, and economic impacts. For companies, the long-term viability of their strategies hinges on embracing sustainability. Plastic injection molding, a pivotal part of manufacturing processes, is now integral to this sustainability conversation.



As a sought-after manufacturing process continually advancing, injection molding holds the potential to significantly impact the sustainability of products worldwide. Innovations in materials, design disciplines, manufacturing processes, and data management support a more sustainable future for injection molding, presenting opportunities for manufacturers and contributing to a greener, cleaner industry.

The European Union's (EU) upcoming sustainability standards add an extra layer of motivation for companies to evaluate and adjust their processes. These standards, set to be enforced by 2024 with a vision of climate-neutral economies by 2050, require extensive data collection and disclosure on sustainability-related impacts across value chains. This necessitates a thorough examination of processes through a sustainability lens.

Key Sustainability Values in Injection Molding

Aligning with sustainability values involves rethinking injection molding processes, materials, and end products. Design for Manufacturing (DfM), with its focus on waste reduction, cost efficiency, and quality optimization, aligns with the core values of sustainable design. Sustainable design, encompassing environmental, economic, and social impacts throughout a product's lifecycle, aims to minimize negative ecological and ethical effects at every stage.

Material Selection for Sustainable Injection Molding:

Choosing eco-friendlier and non-toxic source materials is a pivotal consideration for sustainable injection molding. Options include biodegradable or compostable plastics, recycled plastic resins, composite plastics blended with natural fibers, and innovative materials like Poly(diketoenamine) (PDK). Material selection aims to minimize carbon footprint, energy usage, and waste while meeting technical product requirements and allowing for recyclability or biodegradation at the end of the product's life.

By integrating eco-friendly materials, optimizing production processes, and implementing recycling initiatives, global manufacturers are setting a new standard for sustainable plastic production. The incorporation of biodegradable and recycled plastics into the manufacturing process is a noteworthy example. This not only reduces the demand for virgin plastic materials but also decreases the plastic waste that ends up in landfills and oceans.

Optimizing Injection Molding Processes for Sustainability:

Beyond material selection, manufacturers can design ecologically-minded injection molding processes. This involves using energy- and water-efficient equipment, optimizing efficiency losses, prioritizing renewable energy sources, upgrading facilities for energy efficiency, implementing preventive maintenance protocols, leveraging automation and AI to minimize scrap rates, and more.

Companies today are increasingly investing in advanced technologies that enhance energy efficiency and minimize resource consumption. Cutting-edge injection molding machines use less energy while maintaining high productivity levels. This not only reduces operational costs for these companies but also contributes to a significant reduction in their carbon footprint.

Successful and sustainable manufacturers today are those whose vision is to reduce environmental impact, enhance operational efficiency, and contribute to a circular economy.



Sustainable Plastics Processing Methods:

In the quest for sustainability, innovative plastics processing methods play a crucial role. Examples include:

Closed-Loop Systems: Reusing scrap plastic generated within processes, minimizing material waste.

- **Energy-Efficient Equipment:** Utilizing machinery optimized for sustainability, reducing energy consumption.
- **Recycled Content:** Incorporating recycled plastic resins, contributing to waste reduction and resource conservation.
- **Biodegradable Plastics:** Exploring materials like PBAT or PDK that offer biodegradability and compostability.
- **Automation and AI Integration:** Minimizing scrap rates and material waste through advanced technologies.
- **Embracing Sustainable Practices:** Manufacturers must navigate the complex challenge of improving the sustainability of injection molding processes. Strategies focusing on sustainable materials, energy efficiency, waste reduction, and closed-loop systems position manufacturers not only to meet the EU's sustainability reporting requirements but also to become integral assets to their communities.

In addition to these production-centric initiatives, collaboration across the supply chain is a key factor in driving sustainable solutions. Many injection mold suppliers are partnering with clients to design products with durability and recyclability in mind. By designing products that have a longer lifespan and can be easily disassembled for recycling, these companies are promoting a circular economy & minimizing the need for constant new plastic production.

As sustainability becomes a new industry standard, injection molding has the opportunity to leverage innovation and technology, paving the way for a greener, cleaner manufacturing process.



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Cordage and Ropes of Polyethylene / Polypropylene

Cordage and Ropes find use across industries such as Marine & shipping, Fishing & aquaculture, Industrial & safety, Construction & building, Transport & logistics, Sports & fitness etc. Over the years, Cordage and Ropes of Polyethylene or Polypropylene have gained preference due to their favourable properties like durability, flexibility, strength, affordability, moisture and UV resistance. Moreover, Cordage and Ropes of PE/PP offer a customizable range in terms of diameter, circumference, length, weight, breaking strength, and colours. They are classified under Subheading 560749 of the Harmonized System (HS) of Coding.

World-wide import of Cordage and Ropes of PE/PP is valued over USD 1.0 billion per year approximately.

- In 2022, top-5 exporting countries of Cordage and Ropes of PE/PP were: China (24.8%), India (11.8%), Portugal (8.1%), South Korea (6.7%), & Viet Nam (4.8%).
- Likewise, top-5 importing countries of Cordage and Ropes of PE/PP were: United States of America (12.1%), Indonesia (4.8%), Norway (4.1%), Chile (4.1%) & Netherlands (3.9%).

In 2022-23, India exported 60,889 tonnes of Cordage and Ropes of PE/PP valued at USD 118 million to the world. The 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	13.64	United States of America	6,513
United Arab Emirates	8.31	United Arab Emirates	4,656
Chile	8.27	Chile	4,568
Türkiye	8.15	Türkiye	4,442
Netherlands	7.97	Morocco	3,193
Singapore	6.15	Netherlands	3,073
Norway	5.60	Singapore	2,905
Ghana	5.46	Ghana	2,902
United Kingdom	4.49	Norway	2,618
Morocco	4.17	United Kingdom	2,320

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



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

In 2022-23, India imported 442 tonnes of Cordage and Ropes of PE/PP valued at USD 2.74 million from the world. South Korea was the top supplier in terms of value while Nepal was the top supplier in terms of volume.

Source Country	Value (USD Mn)	Source Country	Qty. (tonnes)
South Korea	1.39	Nepal	211.27
China	0.34	China	144.14
Nepal	0.30	South Korea	29.30
United States of America	0.17	Bangladesh	17.03
Singapore	0.15	Malaysia	7.16
Netherlands	0.10	Mauritius	5.87
Malaysia	0.08	Thailand	4.21
Denmark	0.03	Singapore	3.93
Greece	0.03	Netherlands	3.72
Germany	0.03	United States of America	3.64

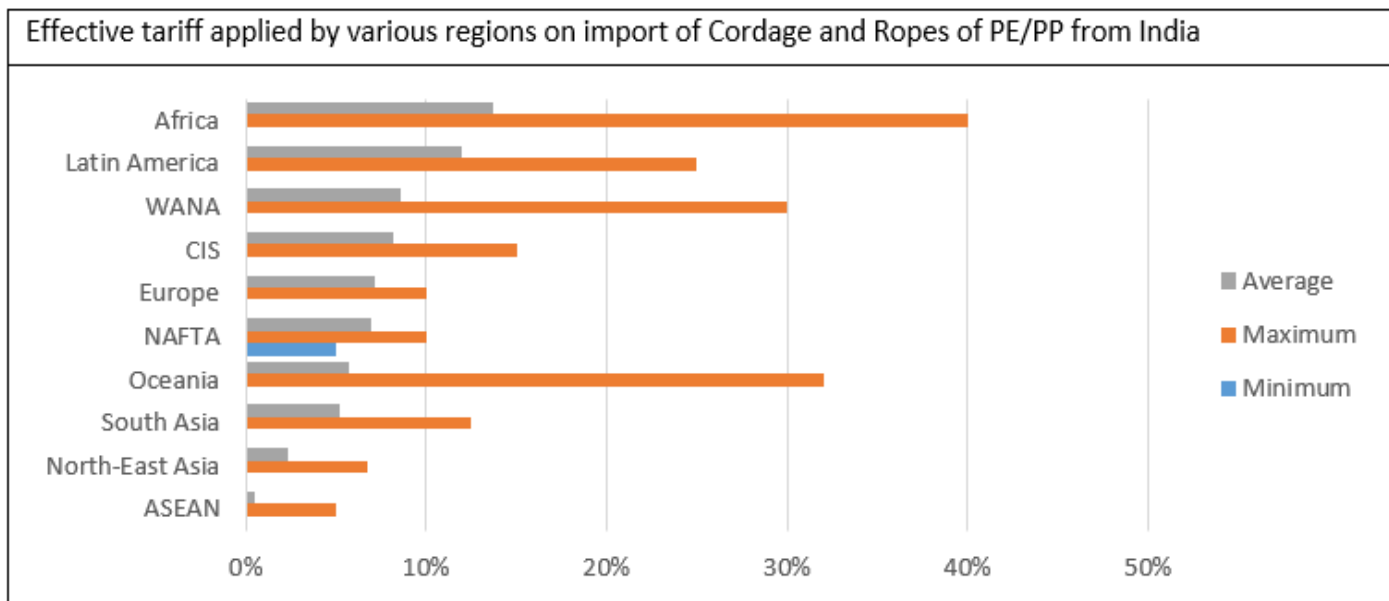
Source: Department of Commerce, Govt. of India, Plexconcil Research

Indian firms dealing in Cordage and Ropes of PE/PP have immense potential to export to destinations like Australia, Chile, Japan, Malaysia, Norway, Singapore, Thailand, United States of America, United Kingdom and the United Arab Emirates.

There is zero duty applicable on import of Cordage and Ropes of PE/PP from India in the United Kingdom under Developing Countries Trading Scheme (DCTS). Import of this product is eligible for zero customs duty in Australia under India-Australia Economic Cooperation and Trade Agreement and in Japan and United Arab Emirates under Comprehensive Economic Partnership Agreement. Certain ASEAN countries, such as Malaysia and Thailand also offer zero customs duty on imports of Cordage and Ropes of PE/PP from India under the ASEAN-India Free Trade Agreement. Chile allows preferential customs duty for Cordage and Ropes of PE/PP under India-Chile Preferential Trade Agreement. Cordage and Ropes of PE/PP enjoy zero customs duty in Norway and Singapore. Despite any tariff concession, the United States of America remains an attractive destination for export of Cordage and Ropes of PE/PP from India.

Unfortunately, some countries in Africa, LAC, CIS, Europe and NAFTA do not accord any preferential treatment to Cordage and Ropes of PE/PP imported from India due to which the average customs duty faced on this product is high.

► Product of the Month



Source: Market Access Map, Plexconcil Research



THE PLASTICS EXPORT
PROMOTION COUNCIL



Department of Commerce
Ministry of Commerce and Industry
Government of India



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GUATEMALA

Economic overview

Guatemala, located in Central America, shares its land borders with Mexico, Belize, Honduras and El Salvador. It has an area of 108,889 square kilometres and a population of 18.6 million. Guatemala is a developing economy, with significant reliance on agriculture, notably on traditional crops like coffee, sugar, and bananas. As the largest economy in Central America, Guatemala also sees a substantial contribution from the services sector constituting 63% to the country's GDP with key components including transport, communications, and various business and real estate activities. Guatemala is also known for its rich cultural heritage and natural beauty which makes it a popular tourist destination.

As of November 16, 2023, S&P's rating for Guatemala is BB (Stable); Moody's rating stands at Ba1 (Stable); and Fitch has a reported rating of BB (Stable).

As a part of Central American Common Market (CACM) Guatemala enjoys duty-free access to Costa Rica, El Salvador, Honduras, Nicaragua, Panama, and vice-versa. Additionally, as part of the Central American region, Guatemala also has trade pacts with European Union, Colombia, Dominican Republic, Mexico, United Kingdom, and the United States of America. Guatemala has a separate trade agreement with the Chile, Panama and Taiwan.



Economic indicators		2020	2021	2022
Nominal GDP	USD Billion	77.7	86.0	95.0
Nominal GDP per capita	USD	4,338	4,708	5,098
Real GDP growth	%	-1.8	8.0	4.1
Total population	Million	17.9	18.3	18.6
Average inflation	%	3.2	4.3	6.9
Total merchandise exports	USD Billion	11.4	13.6	15.8
Total merchandise imports	USD Billion	18.2	26.6	32.1

Source: IMF, TradeMap

Trade overview

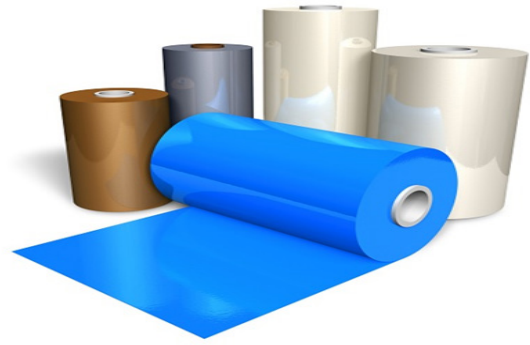
Trade relations between India & Guatemala are on an upswing, with Guatemala emerging as India's largest export destination in Central America. India and Guatemala engaged in bilateral trade worth USD 518 million in 2022. During the year, India's exports to Guatemala were valued at USD 498 million while India's imports from Guatemala were valued at USD 20 million.

The major items of export (2-digit HS) from India to Guatemala are motor cycles with cylinder (USD 166 million), cotton yarn (USD 83 million), pharmaceutical products (USD 63 million), textile machines (USD 37 million). Likewise, major items of export (2-digit HS) from Guatemala to India are teak wood (USD 9.1 million), and cardamom (USD 3.1 million).

His Excellency Dr. Manoj Kumar Mohapatra, Indian Ambassador to Guatemala

I am delighted to witness the success of the Buyer Seller Meets organized by Plexconcil in collaboration with 12 participating Indian companies on 3rd November in Guatemala City. These events serve as a testament to the commitment of the Government of India in strengthening the relationship between our two nations. Guatemala, Honduras and El Salvador, strategically positioned in the heart of Central America, hold immense potential for economic growth and trade partnerships. The Central American market, with its proximity to the United States, provides a unique opportunity for collaboration. I encourage the Indian companies to explore the vast potential for trade, technology transfer, and cooperation across diverse sectors. These initiatives contribute significantly to the flourishing ties between India and these Central American countries, fostering economic development and mutual prosperity.

I extend my sincere gratitude to Mr. Heman Minocha, President of Plexconcil, for his exceptional leadership in spearheading the delegation to Guatemala. His vision and commitment to fostering economic ties between India and Guatemala have been instrumental in the success of the Buyer Seller Meets. I extend my heartfelt best wishes to Plexconnect 2024, scheduled to be organized in Mumbai from June 7-9, 2024. This significant event promises to provide a dynamic platform for fostering meaningful business interactions and promoting trade ties. As we look forward to this occasion, I am confident that Plexconnect 2024 will play a crucial role in further enhancing the economic collaboration between India and Guatemala.



For products that come under the purview of PLEXCONCIL, the trade is largely in favour of India with exports of USD 12.1 million to Guatemala and a similar trade surplus. The major items of export to Guatemala are:

- Plastic films and sheets (31.7%),
- FIBC, Woven sacks, woven fabrics & Tarpaulin (19.5%), and
- Medical items of plastics (12.0%)

Guatemala's annual plastics imports are valued at USD 2.2 billion approx. Its plastic imports are largely catered to, by the United States of America (26.1%); China (25.5%) & Mexico (13.1%). India's market share in Guatemala's plastic import is quite insignificant (0.8%).

Export potential for India

Based on our internal research, India's export of PLEXCONCIL member products to Guatemala has the potential to grow by USD 1.9 billion. Details of product panels and their export potential to Guatemala is provided below:

Product panel	Guatemala's import from India	Guatemala's import from world	India's export to world	Export potential for India
	USD Million	USD Million	USD Million	USD Million
Plastic raw materials	1.4	1,004.5	3,612.9	822.2
Consumer & houseware products	1.2	347.1	1,624.7	341.8
Plastic films and sheets	3.9	297.0	1,942.2	271.1
Packaging items - flexible, rigid	0.6	215.7	648.6	171.5
Medical items of plastics	2.1	90.1	1,040.7	88.0
Plastic pipes & fittings	-	57.7	304.8	45.2
Floorcoverings, leathercloth & laminates	0.3	28.8	778.0	28.0
FIBC, Woven sacks, Woven fabrics, Tarpaulin	2.4	29.4	1,517.6	26.5
Writing instruments & stationery	-	20.4	240.4	20.4

Source: TradeMap, Plexconcil Research

Plexconcil organises strategic Buyer – Seller meetings across Central America – An Initiative to Explore Emerging opportunities in the region

As part of PLEXCONCIL'S efforts to promote Indian plastics exports, the Council recently organized buyer-seller meetings with Central American countries of Guatemala, El Salvador, Honduras and Mexico with the support of the Indian embassies in Guatemala (concurrently accredited to El Salvador and Honduras) and Mexico. Promotional meetings were also held with stakeholders in Costa Rica with support from the Embassy of India in Panama.



The Embassy of India, Guatemala was able to bring in more than 98 participants from 57 companies to meet with the 13 Indian Companies on a one-to-one basis during the BSM. The meetings provided the Indian companies the opportunity to showcase their diverse range of plastic and polymer products, understand the specific needs and requirements of Guatemalan buyers, and explore potential collaborations.

His Excellency Dr. Manoj Kumar Mohapatra, the Ambassador of India to Guatemala inaugurated the BSM and in his address emphasized the Government of India's dedication to cultivating a strong and prosperous relationship between India and Guatemala. He particularly highlighted the immense potential offered by the Central

American market that is strategically positioned near the United States, and thus presents a unique opportunity for economic growth and trade partnerships in the entire region. Dr. Mohapatra stressed the importance of leveraging this geographical advantage and fostering closer ties between India and Guatemala to promote trade, technology transfer, and cooperation across various sectors.

Mr. Ing Marcos Aroany from AGEXPORT, Guatemala and Ms. Mellany Diaz, Executive Director of COGUAPLAST Commission of Plastics (Plastic Association, Guatemala) addressed the gathering stressing the need for collaboration between the countries. Their presence and participation underscored the significance of this initiative and the positive impact it holds for strengthening trade relations between the two countries.

Guatemala's robust economy and the increasing demand for plastic products in various sectors, including agriculture, packaging, and manufacturing, make it an attractive destination for Indian plastic manufacturers. The event fostered productive discussions and laid the foundation for strengthening trade relations in this sector, benefiting both nations.





Colorful Choices: Choosing the Pigments

The global plastic industry heavily relies on pigments and their diverse range of functions resulting in Pigment formulations undergoing continuous evolution through experiments and testing, unveiling unique characteristics that are crucial for optimal performance. Manufacturers place significant reliance on these outcomes to meet the demands of the sector and Pigment applications have expanded beyond merely providing colors or achieving the right shade. Today, manufacturers bear the additional responsibility of sustainability and compliance with various regulations and must be adaptable to different industrial processes towards achieving global environmental goals.

The availability of masterbatch, a coloring agent for polymer materials, stands as a crucial component in this context. Recent reports highlight Asia as the region experiencing the highest growth in pigments, particularly for applications in the plastic industry, notably in the production of packaging products. Manufacturers adhering to stringent industrial norms in formulation and processing are preferred, ensuring compliance with packaging material safety standards, particularly in the production of plastic toys. The ability to innovate and enhance solutions for customers further strengthens their commitment to quality assurance.

Understanding the pigment for plastics

Simply put, pigment for plastics is an element that gives color to the product. Yet, the theme goes a little deeper than this explanation: pigments are chemical compounds divided into particles of microscopic size and that have their own color, which can dye a certain object. It also influences thermal resistance, tinting power, and migration. As pigments do not only act on the tonality of the plastic in question, it is necessary to analyze a series of factors, such as:

- origin of the pigment;
- shade of the pigment;
- compatibility of the material to be colored with the pigment;
- food purpose of the plastic, or not, for example.

It is important to know the origin of the pigment to know if it is the most appropriate choice for your goal. So, what are the origins of the pigment for plastics and the differentials of each?

Origin of the pigment for plastics

The pigment for plastics can come from three main sources: organic, inorganic, and synthetic. The first is created from animals or vegetables; the second is obtained from minerals, such as rocks and stones; and the latter is manufactured (or refined) and, generally, intended for industry.

Inorganic pigments require some attention because they need to be treated before being used, so as not to cause any harm to health. An example of this is the white pigment, commonly found in soil.



Titanium dioxide (TiO₂) is the main component of it, but there are also some heavy metals and constituents that, even in small amounts, are harmful to health. Two examples are lead and cadmium.

It is also important to treat the white pigment before use to neutralize the constituent bases, in case of lack of interaction between them, which are polycarbonate and aluminum (or potassium) hydroxide.

Types of Pigments Used in Plastics

Masterbatch

The masterbatch is a resin, commonly solid, used to give color to plastics. It is one of the options used in machines that cannot mix, evenly, powder pigments and resins. In addition to being a pigment for plastics, masterbatch contains some additives, which make it:

- dryer;
- flame retardant;
- antioxidant;
- slippery;
- UV protector;
- optical brightener;
- antimicrobial;
- biodegrader of polymers made from petroleum;
- carrier of mechanical attributes (reinforced with fiberglass);
- carrier of the conductive properties of plastic;
- carrier of antistatic qualities.



The concentration of the masterbatch varies between 1% and 5% of the molecular weight of the processed piece. Therefore, to increase the productivity of the material, it is necessary that this resin has a high pigment content. Thus, the concentrate of the vehicle will have a minimal presence in the final product.

It is important that the masterbatch is as compatible as possible with the plastic to be colored. For example, if the material to be dyed is polypropylene, the pigment for this plastic must be of the same matter. However, if the masterbatch is made of polypropylene, it can be used to pigment both polyethylene and polypropylene resin.



Liquid masterbatch

The liquid master is a type of pigment for plastics that has a greater use, as it allows for more homogenization. Because of this, it is ideal for translucent colors. In addition, it has advantages such as:

- low content of applications;
- thermal stability;
- less storage space;
- greater versatility in formulations.

How to choose the best pigment for plastics?

Besides knowing what some types of pigments for plastics are, it is important to know the main factors that should be considered when choosing the product that will give color to the material.

Tinctorial strength

It is necessary to take into account the tinctorial strength of the chosen pigment because the ability to dye the plastic will directly influence the appearance and maintenance of the properties of the resin.

Thermal stability

It is necessary to know the thermal stability of the pigment since it can not change due to the temperatures to which the material will be subjected. Therefore, more than knowing if they are chemically compatible, make sure that the pigment will remain unaltered during the

coloring process.

Compatibility

Negative reactions tend to occur more quickly at high temperatures, with large (mechanical) energy inputs, as in extrusion. Therefore, it is necessary to verify that there is no chemical incompatibility between the polymer and the colorant system.

Molecular weight

The size of the pigment particles influences the polymer behavior when some colors are added to it. For example, opaque colorants do not affect materials that have a higher molecular weight.



Choosing Organic Pigments in Plastics and Resins

Organic pigments refer to a wide range of chemical families and cover a wide spectrum of properties. They are mainly used for applications needing high tinting strength and brilliant shades while inorganic pigments are mainly useful where high opacity is needed.

We can distinguish three main categories of organic pigments:

- Polycyclic
- Azo (Mono- and Di-)
- Metal complexes

For each category, classical and high performances pigments are available. The performances of the pigment will depend on:

- Chemical structures
- Surface properties
- Crystallinity
- Particle size and size distribution

Comparison – Organic vs. Inorganic Pigments

Compared with organic pigments, inorganic pigments have lower cost, simple production process and higher yield than organic pigments. These also possess excel-

lent light resistance, heat resistance, and weatherability. Inorganic pigment is suitable for architectural coatings, glass, ceramics, rubber, and plastics coloring.

Compared with inorganic pigments, organic pigments are widely used in the fields of ink, paint, and plastic, due to a wide range of colors, bright colors, and bright hue given its very high tinting power. Organic pigments can be prepared by deep processing to meet different application requirements (such as high tinting strength, high transparency, high mobility, etc.) special commodity formulations, among them, high-performance. Organic pigments have excellent light resistance, heat resistance, solvent resistance and other applications performance, in line with the high-grade inks, coatings and plastics areas coloring needs.

Organic pigments play a vital role in our daily lives, enhancing the colors of our surroundings and the aesthetic allure of a vast array of products.

Due to their brilliant hues, adaptability, and colorfastness, organic pigments are utilized extensively in various industries. Among the most prevalent applications for organic pigments are:

- **Coatings and paints:** Organic pigments are extensively used in the coatings and paints industry to provide color and enhance aesthetic appeal. Organic dyes are essential for creating visually enticing surfaces, from decorative paints to industrial coatings. In addition, their weather resistance ensures that the painted surfaces will last for a long time.
- **Printing inks:** Organic pigments are essential components of printing inks for commercial and domestic printing. Their ability to produce vibrant colors and resist fading makes them ideal for packaging, publishing, textiles, and signage applications.
- **In the plastics industry:** organic pigments are widely used to impart color and produce specific effects. The ability of organic dyes to make a wide range of hues and tones benefits various plastic products, from toys and domestic items to automotive components and electronic devices.

Organic pigments play a crucial role in various industries, offering aesthetic enhancement, color durability, and environmental benefits. Their vibrant hues contribute to the beauty of surroundings, maintaining color durability over time due to exceptional lightfastness. Additionally, organic pigments provide an environmentally friendly alternative to inorganic pigments, being non-toxic and biodegradable and as technology advances, further innovations are expected, leading to enhanced color options, performance, and sustainability in the future.



Fighter Jet Maker Saab Joins Composites Collaboration

Collab Composite, a collaboration between Arctic Business and Piteå Science Park, was launched in Sweden in April 2023 with the aim of connecting international industry with innovative startups in the field of fiber composites. The collaboration is starting to bear fruit with the announcement that two leading companies have joined as partners in the project.

The first industrial partners for Collab Composite are Saab and Hitachi Energy. Both are currently developing products using composites and see the potential in accessing expertise and innovation through Collab Composite. “The collaboration with both companies is a milestone in attracting expertise, businesses, and investments to Piteå [municipality],” said Jens Lundström, CEO of Arctic Business.

Saab has long history developing composites

Saab, which has long been developing composite products for industries such as aviation, looks forward to collaborating with innovative companies in the composite field. “Several of our products, such as [the] Gripen [fighter jet], use fiber composites as an important and often necessary part of the construction. This demonstrates the potential of fiber composites, and we are very proud to be early partners in Collab Composite in Piteå. We look forward to contributing to new innovations and applications for fiber composites both in our products and in society,” said Per-Olof Marklund, head of technology and innovation at Saab’s aeronautics business area.



Hitachi Energy, present in Piteå since 2018, uses composite materials for developing products such as power transformers and high-voltage, direct-current (HVDC) equipment due to their excellent insulating properties. In addition to time and business networks, Hitachi will also participate in steering groups and provide know-how and research expertise for the companies.

Sustainable composites crucial to Hitachi Energy’s business

“When Collab Composite was established, we saw the potential to get involved early in the project. Sustainable composites are crucial for our manufacturing, including transformers. We are actively seeking collaborations that can contribute to our product development,” said Tobias Hansson, country manager at Hitachi Energy.

Piteå municipality, through Piteå Science Park, has been involved in the Collab Composite initiative. Municipal Councilor Patric Lundström sees the collaboration with Hitachi Energy and Saab as a natural next step in making Piteå the leading hub in Sweden for the development of composite materials.

“There are currently world-leading producers and research in fiber composites in Piteå. We have worked hard to make Piteå an attractive place for companies and startups in the composite industry, including access to sustainable energy, investment in expertise, and competitive land prices. The collaboration with Hitachi Energy and Saab is evidence that this effort has yielded results,” said Lundström (S).

Work is currently underway to attract composite companies and startups from across Europe to bring them to Piteå and present their solutions to the companies. The goal is to create new development projects in collaboration with Saab, Hitachi Energy, and other partners at Piteå Science Park in 2024.

Source: Plastics Today

Corvette E-Ray Wins 2023 Vehicle Engineering Team Award

The 2024 model year Chevrolet Corvette E-Ray and a team from General Motors Co. and its suppliers that developed the electrified, all-wheel-drive (eAWD) sports car have been named the winners of this year’s Vehicle Engineering Team Award (VETA) given by the Automotive Div. of the Society of Plastics Engineers (SPE). The VETA award was created in 2004 to recognize the technical achievements of entire teams — comprised of automotive designers and engineers, tier integrators, materials suppliers, toolmakers, and others — whose work in research, design, engineering, and manufacturing led to significant integration of polymeric materials on notable vehicles. The joint team was honored for its contributions at the 52nd SPE Automotive Innovation Awards Gala on Nov. 8, 2023.

0 to 60 mph in 2.5 seconds

The eAWD Corvette E-Ray, whose formidable torque enables it to accelerate from 0 to 60 mph in a mere 2.5 seconds, is the quickest accelerating Corvette in Chevrolet history. Described as not a plug-in-hybrid, the E-Ray utilizes two separate propulsion systems: A naturally aspirated 6.2-liter, small-block V-8 engine powers the rear wheels and generates 495 horsepower and 470 foot-pounds of torque; an electric motor contributes an additional 160 horsepower and 125 foot-pounds of torque to the front wheels via a 1.9-kilowatt battery pack positioned in the tunnel area between the seats. In the E-Ray’s case, electrification is used to enhance performance, although it still offers respectable fuel efficiency for such a high-performance package.

Regenerative charging

There is no need to plug in to recharge battery packs, which replenish their charge via regenerative energy during coasting and braking as well as normal driving. The battery packs provide the vehicle with an electric-only, stealth driving mode at startup that provides top speeds of 45 mph and limited range used to exit a neighborhood quietly before the engine kicks in.

Not surprisingly, the 2024 E-Ray features numerous plastic and composite innovations that support the multi-patented electrified propulsion system. Many of these technologies were nominated in other categories of SPE’s 2023 Automotive Innovation Awards Competition, including the following:

Aftermarket & Limited Edition/Specialty Vehicles Category — Carbon Fiber Wheel. This carbon-fiber-reinforced epoxy wheel features diamond-weave technology and satin-finish paint to achieve a Class A finish and is produced in a patented process that is scalable and reproducible. Compared with aluminum wheels, mass is 30 to 50% lower yet meets stringent OEM durability and performance requirements. With lower unsprung mass, the composite wheels improve traction and braking, suspension responsiveness, and dynamic steering, as well as acceleration. Lighter, yet with higher stiffness and resonant frequency and better damping, the wheels also reduce noise transmission to the driver. Carbon Revolution was the system supplier and material processor. The material used is woven carbon-fiber-reinforced epoxy.

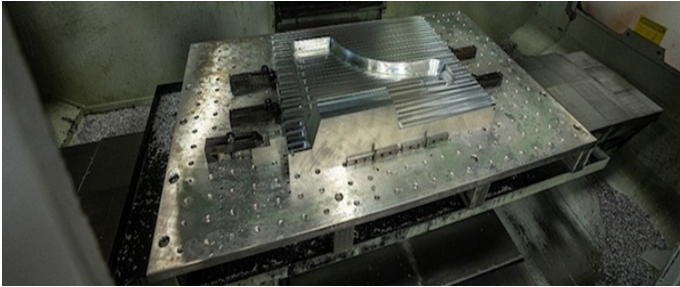
Process/Assembly/Enabling Technologies Category — Battery Module Structure. This all-thermoplastic battery structure combines two side plates and 45 repeating spacers bolted together to hold pouch-style batteries. The patented, volumetrically efficient design withstands high cell expansion forces during battery use while eliminating the need for 55 compression limiters plus isolation countermeasures necessary with metals. Side plates are injection molded with 50% glass-fiber-reinforced polyarylamide (PARA) while spacers are injection molded with 45% fiberglass-reinforced polyphthalamide (PPA). Both materials required high molding precision, dimensional accuracy, flame retardance, and the ability to integrate a variety of functional features that facilitate assembly. Compared with aluminum, both mass and cost are reduced. GM was the systems supplier; Novares Group was the material processor; RTP Co. and Solvay SA were the material suppliers; the polymers used were RTP 299 K X 133837 E Black (PAA FR/GF 50) for side plates and Amodel A-1145 HS BK 324 (PPA/GF45) for the repeating frames. Liberty Molds Inc. was the toolmaker.



Source: Plastics Today

'Robo-molded' Fuel Tank Scores Product of the Year Award

A specialized fuel tank manufactured using Robomold rotomolding technology has earned the Association of Rotational Molders (ARM) 2023 Product of the Year award. Gemstar Manufacturing's fuel tank features an anti-spill funnel in the filler spout in order to comply with EPA guidelines, which was displayed in the entry sample via a cutaway that revealed the internal features of the tank.



The fuel tank employs Hostaform POM RF polyacetal resin from Celanese to deliver toughness and rigidity, temperature resistance, wear resistance, and low fuel permeation, while Gemstar's Robomold robotic rotational molding technology provides precision repeatability necessary for highly specialized custom parts. Robomold technology is said to produce tighter tolerances, design flexibility, and high control compared with traditional rotational molding.

The EPA/CARB-compliant tank is molded in a precise process that allows for optimization of material and reduction of processing time by up to 50% compared to the industry average (27% for the fuel tank). A nearly endless array of fuel types can be accommodated, and the streamlined design is realized through a single-layer solution, contrary to other options on the market.



Robomold technology achieves high tolerances with precision-distributed heat and material control for consistent plastic part repeatability and optimized strength-to-weight ratios. The technology reportedly allows for design flexibility, including the ability to layer different compounds and coatings into finished parts. In-house tool design is also critical for controlled and focused heat to specific areas on the funnel feature, thereby achieving improved threading and accounting for changes in wall thickness.

Source: Plastics Today

Self-lubricating plastic slides into the top spot

Germany's SKZ Plastics Center has bagged an accolade for its plastic material that can reduce friction and wear by up to 85 percent with the addition of lubricant microcapsules.

According to SKZ, nearly a quarter of the world's energy consumption is due to friction alone. The center's investigations show that friction and wear values are reduced when using lubricant microcapsules in plastics, which rupture when friction is applied.

The aim of the research was to quantify the benefits of the technology for industrial scale applications.



Dr. Alexandra Latnikova of the Fraunhofer Institute for Applied Polymer Research IAP in Potsdam, Germany, has developed lubricant-filled microcapsules that can be incorporated into plastics at temperatures of up to 260°C. "Lubricant microcapsules are 5 to 50 µm oil droplets coated with a very thin polymer shell," said Latnikova. "The project has shown that a wide variety of commercially available oils can be encapsulated and incorporated into the plastic like a powder," she continued.

SKZ has been exploring how the microcapsules could be moulded into engineering plastics like POM, PA6, PA6.6 without destroying them in the process. Moritz Grünewald, researcher in the materials development group, said: "In this project, we were able to produce

plastic compounds on a kilogram scale and even incorporate additional reinforcing fibers without destroying the microcapsules during processing. Subsequent tribological tests showed a significant reduction in friction and wear of up to 85 percent in plastic-steel contact.” The technology could one day prove useful in bearing components, gear wheels slide rails, etc. It could also provide an alternative to polyfluorinated chemicals (PFAS) such as PTFE, which has been found to be harmful to health and the environment.

The work has been recognised by the Otto von Guericke Prize, which awarded the project a place in the top three research projects for 2023.

SKZ CEO Professor Martin Bastian said: “In science, we talk about breakthrough innovations. Such leap innovations are what the economy and SMEs need. They would make it possible to overcome energy crises or even the climate crisis. This project is therefore a prime example of pre-competitive research that creates real benefits for our society”.

Source: Interplas Insights

Demag’s medical moulding production cell heads to Ireland

At Sumitomo (SHI) Demag’s newly kitted out showroom in Limerick, a high-speed IntElect S 100 medical-specification production cell has just been unveiled.

The machine is particularly suited to medical moulders producing pipette tips, vials, drug delivery devices and injector pens, says the firm. It was shipped to Limerick direct from the Fakuma trade show in Germany, having been used there as a demo machine.



One key feature is the controlled acceleration and deceleration injection speed. The company’s Medical Business Development Director Anatol Sattel said: “When there is no margin for error, the IntElect’s highly dynamic direct drive technology can react quicker to the injection speed changes. This not only delivers a faster cycle time but ensures the optimal product quality. All of this results in a faster ROI.”

In medical production, the difference between overfilling, a full part or a short shot can be very small. The IntElect’s maximum injection speed of 350mm per second can be reached in 0.14 seconds, opening up a more flexible process window.

The drive system can be tailored to the application, so Irish customers operating in the medical space can benefit from lower energy consumption and reduced heat dissipation in air conditioned environments. Tests on these machines and their components have shown no signs of visible wear on the spindles, even after millions of cycles.

“Having our very own medical machine in Ireland now gives customers a high-spec package to support validations, run tool trials and provide valuable process optimisation training to technicians. We are anticipating this machine will generate a lot of interest from medical moulders in Ireland. Combined with the IntElect S 180 machine already installed at our new Limerick facility, we now have the ability to demonstrate a range of AI and connectivity features to customers in all sectors. Critically, customers can benefit from the convenience of running tests and trials on site, without having to travel overseas. We look forward to welcoming customers from the first week of January 2024,” said UK & Ireland Director Dave Raine.

Source: Interplas Insights

Sweden unveils Site Zero, the titan of global plastic recycling

Site Zero, a revolutionary facility in Motala, Sweden, has begun operations as the world’s largest plastic-sorting plant. With an investment of SEK 1 billion, the plant distinguishes itself by being able to process all of Sweden’s plastic packaging waste. Boasting a sorting capability of 200,000 tonnes of plastic annually, Site Zero can sort 12 different types of plastics. The facility’s efficiency marks a significant uptick from 47 percent to an impressive 95 percent of recycled plastic packaging, drastically reducing the need for incineration.

The world’s largest plastic recycling plant started operations in Sweden. Site Zero can handle up to 200,000 tonnes of plastic per year, increasing recycling efficiency to 95 percent.

Site Zero represents a monumental leap forward in recycling technology. Infrared cameras are at the heart of this advancement, enabling the facility to sort 40 tonnes of mixed plastic waste per hour. This sophisticated sorting process utilizes 60 Near Infra-Red (NIR) sensors along approximately five kilometers of conveyor belts. As a result, the facility can separate plastic packaging into 12 distinct types, including PP, HDPE, LDPE, PET

trays, and PET bottles, both colored and transparent.



From game changer to green pioneer

Experts have hailed Site Zero as a ‘game changer’. Åsa Stenmarck of the Swedish Environment Protection Agency and Robert Blasiak, a Stockholm Resilience Center researcher, affirm that Sweden is setting a new global standard in plastics recycling. The plant’s operation aligns with the urgent need to address the global plastic waste crisis, projected to triple by 2060. Currently, only a fraction of this waste is recycled, with the majority ending up in landfills or incinerated.

The future of plastic recycling in Sweden

Despite these uncertainties, the ambition of Site Zero is clear. The facility is part of a broader strategy to achieve zero waste and close the loop on plastics. By 2025, the site plans to include a washing and granulation station, furthering its aim to make the entire plastic flow in Sweden circular. The plant is a collaboration between Svensk Plaståtervinning, Sutco, and Tomra, with Tomra providing state-of-the-art sorting technology to maximize material recovery.

Mattias Philipsson, CEO of Svensk Plaståtervinning, has articulated a vision for Site Zero that encompasses “zero waste, zero downcycling, and zero emissions”. This commitment is reflected in the plant’s design, ensuring no packaging goes to incineration. Any residual plastic fragments after sorting are directed towards chemical recycling, new composite products, or used in energy recovery with carbon capture and storage.

Collaborative efforts and technological marvels

The success of Site Zero is underpinned by collaboration. It is not just a facility; it is the culmination of efforts from various stakeholders in the recycling process. Producers and machine suppliers like Tomra have played a pivotal role in equipping the facility with over 60 Auto-sort machines capable of processing materials with up to 98 percent purity levels.

Oliver Lambert, VP and head of operations and feedstock sourcing at Tomra Feedstock, emphasized the importance of Tomra Insight. This cloud-based data plat-

form provides real-time monitoring of sorting lines. This technology is critical in achieving the high purity levels required for effective recycling.

With the inauguration of Site Zero, Sweden boldly stepped into the forefront of the fight against plastic waste. The facility embodies the country’s dedication to environmental stewardship and a circular economy. While performance data and details on the supply chain are awaited, the groundwork laid by Site Zero is undeniably transformative. It is a beacon of innovation, setting a national and global precedent for sustainable plastic recycling.

Source: Innovationorigins.com

AI-powered process for mechanical recycling of food-grade PP shows promise

The solution developed by TotalEnergies, Recycleye, and Valorplast achieved a pick rate of 50% of food-grade polypropylene (PP), with over 95% purity.

Polypropylene (PP) represents roughly 20% of the world’s virgin plastic production, but less than 3% of food-grade polyolefins are recycled worldwide. Artificial intelligence and robotic sorting solutions have can help improve this scenario. Now, OMNI, a collaborative research project directed by Recycleye, Valorplast, and TotalEnergies to enhance the circularity of PP food packaging using the technology, has shown promising results.



Recycleye, a UK-based expert on robotic automation, built and trained an AI model based on wastes collected from five locations across France supplied and characterised by Valorplast, a Paris-based collection service of household plastic packaging. After 18 months of research, the team developed an AI and robotic sorting solution which achieved a pick rate of 50% of food-grade PP, with over 95% purity.

The sorted material was then further decontaminated on a semi-industrial pilot plant using existing mechanical recycling technologies. French oil giant TotalEner-

gies then leveraged its polymer expertise to produce odourless, clean, recycled PP suitable for high-end packaging applications.

Project OMNI said the project demonstrated that AI and computer vision can efficiently sort food-grade PP waste. The team believes the automation solution has advantages over digital and physical marking solutions, which require system-wide packaging changes and may therefore be harder to implement. France is spearheading innovation in this field too, having been chosen as the first country to implement Digimarc's digital watermarks technology on a nation-wide basis.

"We are extremely excited to see this successful application of our robust AI-powered sorting technology at a semi-industrial scale," said Victor Dewulf, CEO of Recycle. "This application opens the possibility of creating new markets for recycled plastics materials; ultimately changing the economics of recycling".

Project OMNI was launched in 2020, after selection for support by Citeo, a mission-led company reducing the environmental impacts of household packaging and paper.

Source: Sustainable Plastics

India News

Re Sustainability, PolyCycl to collaborate for chemical recycling of plastics

KKR-backed waste management company Re Sustainability (formerly Ramky Enviro Engineers) and PolyCycl on Monday said they will collaborate for creating a network of feedstock facilities in the country for chemical recycling of plastics.

The aim is to extract low-grade plastics such as single-use flexible films and packaging waste from multiple streams and prepare them as feedstock for chemical recycling projects run by PolyCycl and its partners. The plastics will be transformed into a range of hydrocarbon molecules that serve as essential building blocks for the manufacturing of sustainable circular polymers, green chemicals and renewable fuels.

The companies aim to establish the first sorting and pre-processing facility in Delhi, Re Sustainability said. Over 10,000 tonnes of waste plastics end up in landfills across the country every day, it said citing official data. "Waste plastics are a reserve of hydrocarbon... while they currently pose environmental and societal challenges, our collaboration with Re Sustainability aims to convert them into a valuable resource for a plastic-to-plastic circular economy," PolyCycl CEO Amit Tandon said.

Source: The Hindu

Pakka launches India's first compostable flexible packaging

The collaboration with Brawny Bear, India's pioneer in date-based food manufacturing, seems to align with Pakka's focus on sustainability. This significant development is made possible through a collaboration with Brawny Bear, a nutrition company renowned for its

date-based healthy food products.



The introduction of this compostable flexible packaging marks a notable milestone in India's packaging industry, which boasts a market value of more than \$70bn.

An innovative leap in packaging

Flexible packaging plays a dominant role in India's packaging sector, comprising more than 60% of the market share. It is a common sight in everyday life, encompassing a wide range of products from shampoo sachets to biscuit packets. The convenience, versatility and cost-effectiveness of flexible packaging have made it an integral part of modern living.

However, the surge in convenience has been accompanied by growing environmental concerns associated with conventional non-biodegradable plastic-based flexible packaging. Due to its complex multi-layered structure and low thickness, recycling most conventional flexible packaging remains a significant challenge.

Pakka Limited's venture into flexible packaging represents a natural progression for the company, which has dedicated more than four decades to producing compostable pulp and paper packaging solutions as

well as moulded tableware.

With ambitious plans to scale up the production of such eco-friendly packaging solutions in the coming three years, Pakka's global manufacturing facilities in Ayodhya, India and Guatemala, America, are poised to become hubs for innovation and production.

A thriving global market and local growth potential

The launch of India's first compostable flexible packaging coincides with the expansion of a global market for sustainable packaging solutions.

According to a report by Mordor Intelligence, the Indian packaging market is expected to grow at a Compound Annual Growth Rate (CAGR) of 12.6% from 2023 to 2028. Despite this growth, India's per capita consumption of flexible packaging stands at 11 kg, well below the global average of 28 kg per capita, indicating substantial untapped market potential.

Source: packaging-gateway.com

Sustainable Packaging Startup Fibmold Secures \$10 Mn Funding From Omnivore, Accel

Sustainable packaging startup Fibmold has secured \$10 Mn funding in a round led by Omnivore and Accel.

Founded in October 2022 by Param Gandhi and Vaibhav Garg, Fibmold manufactures eco-friendly, moulded fibre packaging products that mimic the functionality of rigid plastics.



The startup asserts that its packaging products are crafted from natural fibers such as bamboo, bagasse, husk, wheat straw, and even waste paper, tailored to their specific applications. These products are fully recyclable and naturally biodegradable. Fibmold contends that by adopting its eco-friendly packaging solutions, companies can transition away from single-use plastics. The firm notes that while China leads in the production

and export of sophisticated molded fiber packaging, the industry in India is still in its nascent stages.

Commenting on this, cofounder Gandhi said, "The sustainable packaging industry is a \$300 Bn opportunity. At Fibmold, we aim to assist brands globally in transitioning to eco-friendly packaging alternatives and ultimately eliminate their reliance on single-use plastics."

Source: inc42.com

India's exports showcase remarkable resilience, eyes USD 2 trillion goal by 2030: PHD Chamber

In a significant revelation, the PHD Chamber of Commerce and Industry's research report has positioned India's exports as the most resilient among the top 20 global exporters. The report underscores the impressive growth of exports, with rates reaching 20 per cent and 9.7 per cent in 2021 and 2022, respectively, marking the highest growth among leading exporting nations.

Sanjeev Agrawal, President of the Chamber of Commerce and Industry, credited the dynamic policy environment provided by the government and exporters' concerted efforts to integrate with global value chains for this remarkable feat. He expressed optimism about the trajectory of export growth, even as October 2023 witnessed a notable 9 per cent uptick after a brief slowdown.

Over the past decade, India's exports have soared, escalating from USD 375 billion in FY 2011 to USD 770 billion in FY 2023. The launch of India's new Foreign Trade Policy (FTP) 2023, characterized by its five key elements - Duration, Dynamism, Decentralization, Direction, and Disaster-proofing, aims to create an enabling ecosystem for exporters.

Dr Ranjeet Mehta, Executive Director of the PHD Chamber of Commerce and Industry, highlighted the FTP 2023's objective to enhance India's competitiveness globally, aligning with the vision of becoming "Atmanirbhar" (self-reliant).



Mehta said, “The launch of India’s new Foreign Trade Policy (FTP) 2023 with its five key elements of Duration, Dynamism, Decentralisation, Direction and Disaster proofing, is aimed at creating an enabling ecosystem for exporters. It shall bolster India’s export quantum while considering the size of the Indian economy and its manufacturing and service sector base.

Mehta added, “The FTP 2023 aims to increase India’s competitiveness in the global markets by promoting and developing each state to be able to integrate with the global trade which is a move in line with India’s vision of becoming “Atmanirbhar” (self-reliant).”

“The emerging high growth destinations such as Togo, Netherlands, Brazil, Israel, Indonesia, Turkey, Australia, South Africa, Saudi Arabia and Belgium and high growth export commodities such as Sugar and confectionary, Mineral fuel and oils, aluminium and articles, inorganic chemicals, ships, boats and floating structure, rubber and articles and optical, photographic, medical apparatus would enhance India’s export growth to new highs”, Mehta said.

The FTP 2023 focuses on promoting and developing each state to integrate with global trade, fostering a move towards sustainable low-carbon economic development.



The report identifies emerging high-growth destinations such as Togo, Netherlands, Brazil, Israel, Indonesia, Turkey, Australia, South Africa, Saudi Arabia, and Belgium.

Additionally, high-growth export commodities, including Sugar and confectionery, Mineral fuel and oils, Electrical machinery and parts, Aluminum and articles, and more, are expected to contribute significantly to India’s export growth.

Sanjeev Agrawal emphasized the consistent growth of the top 10 export destinations and commodities over the last five years. Togo leads the list with a remarkable 73 per cent growth, followed by the Netherlands, Brazil, Israel, and others.

Aggarwal said, “Exports to these countries have grown at a high growth rate amidst the global economic slowdown. These countries are emerging major growth destinations for India’s exports though the volumes have to pick up more significantly in the coming times. The high growth-high volume export commodities have significant potential to enhance India’s export growth to new highs.” These destinations and commodities, although showing high growth rates, present opportunities for increased volumes in the future.

The report also identifies 75 products accounting for approximately 50 per cent of India’s total exports in FY 2023. “The industry body had identified 75 products on the basis of a six-digit Harmonised system (HS code), these 75 commodities account for about 50 per cent of India’s total exports for the FY 2023, suggesting that these commodities have a great potential to propel India’s exports. Nonetheless, India can scale up exports of these commodities exploring the massive untapped potential in the global markets, since they make up only 6 per cent of global exports. These 75 products exports are USD 222 billion in the world exports of USD 3838 billion”, said Dr Sharma

Dr Sharma highlighted the significance of services exports as a major growth driver towards achieving the ambitious target of USD 2 trillion in exports by 2030.

Looking ahead, Agrawal stressed the importance of ease of doing exports and government-initiated reforms for achieving the USD 2 trillion target. Addressing the cost of doing business, including the capital, power, land availability, logistics, and labour, he emphasized the need for calibrated reforms. Additionally, exploring new Free Trade Agreements (FTAs) with the EU and the UK was identified as a significant avenue to boost India’s participation in global value chains. (ANI)

Source: Hindustan Times

Amazon and DGFT to train MSMEs in 75 districts to export ‘Made in India’ products globally

The aim: Support the ‘Districts as Exports Hubs’ initiative and enable Indian MSMEs to sell products to customers in 200+ countries through Amazon Global Selling.

Amazon India has signed a memorandum of understanding (MoU) with the Directorate General of Foreign Trade (DGFT) to enable MSMEs and bolster e-commerce exports from India. Amazon and DGFT will co-create capacity building sessions, trainings and workshops for MSMEs across 75 districts that are a part of the DGFT’s ‘Districts as Export Hubs’ initiative outlined in India’s new Foreign Trade Policy.

In 6 years, Amazon Business has become the largest aggregator of GST-enabled products in India. Suchit Subhas, Director, Amazon Business India explains what Amazon Business does and how it works.

Amazon signs MoU with DGFT to empower Indian MSMEs



Left to Right: Dr M Balaji, Joint Secretary, Department of Commerce; Nitish Suri, Joint Director General, DGFT, Santosh Kumar Sarangi, Additional Secretary and Director General, DGFT; Chetan Krishnaswamy, Vice President, Public Policy, Amazon; and Bhupen Wakankar, Director Global Trade, Amazon India.

Transforming districts into export powerhouses

The 'Districts as Export Hubs' initiative emphasises the significance of leveraging the unique potential and diverse identity of each district and transform them into export powerhouses. The Department of Commerce, working in close collaboration with states, union territories and districts through the DGFT, establishes institutional frameworks to facilitate exports of identified products and services. The initiative aims to boost the manufacturing and exports in urban areas while stimulating economic activity in rural districts. It establishes a connection between local producers and global supply chains, addressing various facets of production.

The 'District as Exports Hub' initiative is an implementation of Hon'ble Prime Minister's vision of converting each district into an export hub.

"Given Amazon's global presence and their experience of working with lakhs of MSMEs in India, we believe this collaboration is an important step towards our goal of enabling \$200-300 billion in ecommerce exports from India by 2030," says Sarangi.

Indian exporters during the holiday season

Amazon customers worldwide can explore 'Made in India' products across toys, apparel, office products, home and kitchen, and more categories.

Amazon and DGFT will focus on educating MSMEs on e-commerce exports, enabling them to reach a global customer base. Moreover, Amazon will also facilitate access to a network of third-party service providers specialising in areas such as product imaging, digital cataloging, and tax consultancy, catering to the diverse needs of MSMEs. These services will equip Indian entrepreneurs with the tools and resources required to establish thriving export businesses and build global brands.

Amazon has digitized over 6.2 million MSMEs, enabled nearly \$8 billion in exports, and created 1.3 million+ jobs in India since inception. The Amazon Smbhav Venture Fund has invested in entrepreneurs who are building in India.

"We are excited about this collaboration with the DGFT and we really look forward to play our part in helping Indian MSMEs and entrepreneurs create strong global brands. Our focus remains on making exports simpler and more accessible to businesses of all sizes as we work towards our goal of enabling \$20 billion in cumulative ecommerce exports from India by 2025," says Bhupen Wakankar, Director Global Trade at Amazon India.

What is Amazon Global Selling

Amazon Global Selling is a flagship exports program that helps lower the entry barrier for Indian MSMEs to start or expand their exports business using ecommerce. The program was launched in India in 2015 to help Indian exporters reach customers worldwide through Amazon's international websites and marketplaces. Today there are more than 1.25 lakh exporters across India on the program, showcasing millions of Made in India products to customers in 200+ countries. Together, they have enabled nearly \$8 billion in cumulative exports from India. Amazon has pledged to enable \$20 billion in cumulative exports from the country by 2025.

Source: Amazon News

Indian Exports To Nordic-Baltic Region Surges 39% In 5 Years: Union Min Goyal

India's exports to the Nordic-Baltic region has grown over 39% from 2018-19 to 2022-23 and it is developing into a new potential market for Indian products, said Union Commerce Minister Piyush Goyal on Wednesday. Inviting companies from the Nordic-Baltic region to invest in the country and set up production units, he said exports to Finland and Norway have grown by over 100% and 80% respectively.

Addressing the CII India Nordic-Baltic Business Conclave 2023 in New Delhi, he said, "We want you (Nordic region) to produce in India by leveraging the economies

of scale that India offers. The Indian market can help you grow.” He further added that India is now USD 3.5 trillion economy, which is likely to become a USD 35 trillion economy in next 30 years.



The minister identified opportunities in pharmaceuticals, IT, Artificial Intelligence, Internet of Things (IoT), electric vehicles and marine sectors.

“Nordic-Baltic nations have the best innovation, green tech, AI and blockchain-led transformation, supply chain logistics and fintech, and these are the areas where there is a huge scope for collaboration with India,” he said.

Talking about the India-EU FTA negotiations, he said, “We are actively pursuing an FTA with both the EU and EFTA, which is eminently doable. This endeavour aims to expand trade not only in goods and services, but also explore new opportunities in tourism, technology, innovation and greener energies, weaving India’s growth story with a focus on AI and blockchain.”

He also invited Nordic-Baltic companies to participate in the upcoming trade shows such Bharat Mobility and BharatTex event, which are scheduled to start from 1 February and 26 February respectively next year.

BharatTex will have over 3,500 exhibitors from nearly 40 countries, while the electrical component will be the key feature at Bharat Mobility show, he said.

Source: KNN India

Within 7 Months Of FY24, Smartphone Exports Reach \$8 bn

The mobile exports in India in the first seven months of the current fiscal year (April to October) crossed \$8 billion, mainly driven by iPhone exports. Apple Inc registered iPhones exports worth more than \$5 billion from India during this period, marking a 177% increase compared to the same months last year. The Minister of Railways, Ashwini Vaishnaw tweeted about the \$8 billion of mobile exports in the first 7 months, reflecting a 60% annual growth rate and registering an average run

rate of more than \$1 billion.



Earlier, during the same period in FY23, the company sold iPhones worth \$1.8 billion via its three vendors in India. In addition, the smartphone exports in India saw an increase of about 61% compared to the last year’s reported figure of \$4.97 billion. Promoting the Make In India movement, Ashwini Vaishnaw took to X and wrote, “Mobile exports reach \$8bn within 7 months of current fiscal. Growth 60% higher than \$ 4.97 bn for same 7 month period last year. Avg of \$ 1bn + plus mobile phone exports per month.”

India’s smartphone exports have experienced a significant surge and are expected to surpass the FY24 figure of \$11.1 billion by the end of FY24. In the initial seven months of the current fiscal year, the India smartphone exports have already reached 72% of the previous year’s total.

A Business Standard report states that Apple exported iPhones worth \$5 billion from India in the first seven months of FY24, that is, from April to October this year. With Apple expanding production under the Production-Linked Incentive (PLI) scheme, the iPhone’s share in total smartphone exports from the country has significantly increased. The iPhone is now responsible for 62.5% of India’s total smartphone exports.

Source: news18.com

Prolonged approval processes impact India’s medical devices exports: GTRI

Prolonged regulatory approval processes in the UK impact India’s exports of medical devices to the British market, think tank GTRI said on Wednesday.

To promote exports of these devices, it said, India should negotiate a Mutual Recognition Agreement (MRA) to expedite the entry of these equipment into the UK market, particularly for devices with CDSCO (Central Drugs Standard Control Organisation) licence or Quality Council of India’s Indian Certification of Medical Devices (ICMED) certification.

The MRA would reduce regulatory compliance and audit requirements, potentially enhancing India's exports, Global Trade Research Initiative (GTRI) Co-Founder Ajay Srivastava said.

The suggestion assumes significance as both the countries are negotiating a free trade agreement and this sector is an important part of that. The existing zero import duties on medical devices in the UK imply no direct tariff-related advantages for India under the FTA, it said.



This means, India's medical devices industry does not gain tariff concessions, which are a typical benefit in such trade agreements, it said adding even with zero tariffs in the UK, India's medical device exports to the UK are limited due to prolonged regulatory approval processes in the UK.

It added that British regulations permit products to be labelled as 'Made in UK' even if they are merely marketed there, not manufactured. This is allowed under the current UK Medical Device Regulations, where a product can be labelled with a 'Legal Manufacturer' from the UK, even if the actual production does not occur there, GTRI said.⁴

Post-FTA, this may create a risk of increased imports due to duty cuts and lax product-specific rules of origin, potentially impacting India's growing medical device sector, it said.

It also said that India might consider duty reductions in the proposed trade pact only on products where India's exports are high and it has a competitive export advantage, assessed at the tariff line level.

India may adopt conservative rules of origin to prevent pass-through imports from third countries with little processing in the UK. A good rule will be using the twin criteria involving change in Tariff Heading and Value Addition for all such products, Srivastava said.

He added that this approach would ensure that benefits of the FTA are limited to goods with significant processing in the partner countries, thereby safeguarding India's trade interests and local industry from potential market disruption.

The Indian medical devices industry has a robust local manufacturing base. India can produce a wide range of quality medical devices, enabling self-sufficiency. The underpenetrated medical devices market, driven by healthcare investments, is set for rapid growth, he said. The industry has the potential to expand from \$12 billion to \$50 billion by 2030, reducing import reliance to 35 per cent and boosting exports to \$18 billion and this shift could create 1.5 million jobs, Srivastava added.

Achieving the sector's full potential will require further support as the industry faces 15 per cent cost disability due to the high cost of power, supply chain inefficiencies, and government support is needed to check dumping, ramp up domestic production and cut imports.

The UK is a major player in medical device manufacturing with global exports exceeding \$4 billion in 2022-23. Essential orthopaedic appliances, with \$2 billion, are the top export. Other significant categories include X-ray radiation apparatus, breathing appliances, gas masks. India imported medical devices of value \$215 million from the UK in 2022-23.

Top medical devices, along with import value, are apparatus for diagnostic lab analysis Polarimeters, Refractometers, and spectrometers (\$63.83 million); X-ray and other radiotherapy apparatus (\$52 million); diagnostic/lab reagents (\$29.18 million).

The other imports include instruments for surgical and dental use (\$28.07 million); mechano-therapy appliances, oxygen therapy, artificial respiration apparatus (\$13.42 million); and orthopaedic devices (\$11.49 million).

Source: Business Standard



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, Tar-paulins, 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



The Plastics Export Promotion Council added the following companies/firms as new members during October-2023. We would like to welcome them aboard!

Sr. No	Name Of The Company	Address	City	Pin	State	Director Name	Email
1	Accuplast Technologies	Shed No.14, Doddaballapur Integrated Textile Park Pvt Ltd Phase II Kiadb Apparel Park, Doddaballapura Bangalore Bengaluru Rural Karnataka 561203	Bengaluru	561203	Karnataka	George Joseph	Plasstech@Gmail.Com
2	Acry Surfaces Llp	Shop No.31, At Chachahvadda, Maliya Miyana, Morbi, Maliya,	Rajkot	363670	Gujarat	Rakesh Ramniklal Kaila	Info@Acrysurfaces.Com
3	Amcor Flexibles India Private Limited	Unit No 301b , 3rd Floor , Godrej Two, Pirajshanagar Eastern Express Highway , Vikhroli East,	Mumbai	400079	Maharashtra	Roy Joseph Manicknaparambil	Anilkale@Amcor.Com
4	Dodhia Synthetics Limited	House No. 98/2, Narpoli, New Mauji Compound, Behind Ratan Talkies,	Bhiwandi	421302	Maharashtra	Jinesh Mansukhlal Dodhia	Bhadresh@Dodhia-group.Com
5	Ekta Polypack Llp	Survey No 184 P/1 And P/2, Near Indian Oil Fuel Station, Chachapar Khanpar Road, At-Chachapar	Morbi	363641	Gujarat	Jimmy Sureshbhai Dori	Ektapolypack.Ind@Gmail.Com
6	Faab Industries	B4/8 B K Chhabra Compound, Vakola Shivaji Nagar, Santacruz East,	Mumbai	400055	Maharashtra	Ayaz Mirza Baig	Ayaz@Faabind.Com
7	Gajindra Plastic Industries	Plot No. 25, Block-C, Phase-II, Noida, Gautam Buddha Nagar,	Gautam Buddha Nagar	201305	Uttar Pradesh	Jay Krishna Shukla	Charan@Gajindrapvc.Com
8	Galaxy Plasto Products	Kh No.181 Pawan Puri Udyog Kunj, Near Ganga Canal, Murad Nagar Ghaziabad,	Ghaziabad	201206	Uttar Pradesh	Ashish Kumar Aggarwal	Galaxyplastoproducts@Gmail.Com
9	Iris Polymers Industries Private Limited	S.No. 36, Mantarwadi Uruli Devachi De-Laval Company, Fursungi,	Pune	412308	Maharashtra	Arun Sahebrao Awatade	Export@Irisgroup.Co.In
10	J.K.P. Master Batch Private Limited	F-235 U/G/F Vikas Puri Near K.R. Manglam School,	New Delhi	110018	New Delhi	Sahibddeep Singh Chattrath	Info@Jkmasterbatch.Com
11	Kartavya Packaging Industries	C-40, Sector-B-3 Tronica City, Loni Ghaziabad,	Ghaziabad	201102	Uttar Pradesh	Satya Parkash Gupta	Ak.Garg2727@Gmail.Com
12	Krishna Decor Pvt Ltd	Survey No.496, 497, Majara Talod Road, Majara	Tal.Prantij (S.K.)	383205	Gujarat	Vishal Vijay Bhai Agarwal	Krishnaadecor@Gmail.Com
13	Kvm Exports	No134 4 Manjunatha Nilaya Kashinaga Amruthalli Main Road Sahakarnagar P Contact No: 919611619147 Bangalore Bengaluru Urban Karnataka 560092	Bengaluru	560092	Karnataka	Usha Deora	Kvmexports2006@Gmail.Com
14	Magram Healthcare Private Limited	No. 111a, Mount View Building, Anna Salai Guindy, Chennai Chennai Chennai Tamil Nadu 600032	Chennai	600032	Tamil Nadu	Mohanraj Mageshwaran	Arun.Contact@Gmail.Com
15	Merlin Brands Private Limited	W-40, Okhla Phase-2, New Delhi South Delhi,	Delhi	110020	Delhi	Sidharth Suneja	Lakshay@Merlinbrands.Com
16	Miracle Well Pack (India) Private Limited	398 Rani Sati Nagar, Ajmer Road ,	Jaipur	302019	Rajasthan	Hemendra Agarwal	Ganesh.Kumawat@Miraclegroup.Co.In



17	Muthu Pipes Pvt Ltd	3e, Mandira Apartments, 23a, North Boag Road, T. Nagar	Chennai	600017	Tamil Nadu	Palanivelu	Muthupipes@Gmail.Com
18	Nico Flex Private Limited	7a Shobha Nagar Foundry Nagar Agra,	Agra	282006	Uttar Pradesh	Pulkit Agarwal	Sales@Nicoflex.In
19	Novex Poly Films Private Limited	Plot No 21 1 St Floor, Modern Indl Estate Kachigam	Daman	396210	Dadra & Nagar Haveli And Daman & Diu	Mahesh Shantilal Shroff	Jay@Novexpoly-films.In
20	Penta Packaging	Survey No-78/2, Chinnalam-badi Village Anambakkam Post, Salavakkam Via Uthiramerur Taluk	Kanchipuram	603107	Tamil Nadu	Anand Balu	Anand@Pentapackaging.Com
21	Plastomatic Industries	S-12 Midc, Hingna Road	Nagpur	440016	Maharashtra	Shailbala Nandkumar Kothari	Plastomaticinds@Gmail.Com
22	Rama Polythread Private Limited	Plot No. S-34 & S-35, MIDC Industrial Area, Hingna Road,	Nagpur	440016	Maharashtra	Surender Kumar Sharma	Ramapolythread@Gmail.Com
23	Redcoin Packaging Llp	Urvey No. 6/P,Kalawad Road Chhapara, Lodhika,	Rajkot	360021	Gujarat	Bhagirathkumar Jamnadas Virani	Info@Redcoinpackaging.Com
24	S.A. Industries	Ground Floor, G.I.D.C, Industrial Plot No 785/3,,40 Shed Area, Vapi,	Valsad	396191	Gujarat	Dhaval Kumar Babubhai Patel	Saindustries20@Gmail.Com
25	Samaisha Net Pack Industries	Vibrant Mega Industrial Park, Plot No.182 193, Zak Kadadara Road, Vehlal	Ahmedabad	382330	Gujarat	Kamal Dhanraj Mangnani	Samaisha.Npi@Gmail.Com
26	Sangir Industrial Solutions Private Limited	Cts No.1050, 401,Plot No.163, Mandhana Enclave, Mahatma Gandhi Road, Goregoan (West),	Mumbai	400104	Maharashtra	Sushilkumar Mandhana	A.Mandhana@Sangir.Com
27	Shiva Polymers	B-418 Mangolpuri Industrial Area, Phase-1 New Delhi,	New Delhi	110083	Delhi	Shivam Aggarwal	Shivam3613@Gmail.Com
28	Shree Chakreshwari Industries	A/13, 1st Floor, Dakshina Park Society,10th Road,Opp. J.V.P.D. Bus Depot,Juhu Scheme,Vile Parle(E)	Mumbai	400049	Maharashtra	Mrs Anita R Chopra	Neeljyotgroup@Gmail.Com
29	Shree Karani Polypack Industries	Plot No.351, Village - Vadala,	Kheda	387550	Gujarat	Vinod Kumar Soni	Gujskpi@Gmail.Com
30	Skypack Global Private Limited	Plot No. 114, Sector-59 Balabh Garh Faridabad,	Faridabad	121004	Haryana	Suresh Prashar	Imports@Skypackindia.Com
31	Synpack Zipper Bags Private Limited	Sb-161,3rd Cross,1st Stage, Peenya Industrial Estate, Contact No: 41272411 Bangalore, Karnataka Bengaluru Urban	Bangalore	560058	Karnataka	Manoj Kumar Sharma	Synpackzipperbags@Gmail.Com
32	Technoflex Packaging	65/41 West Punjabi Bagh New Delhi,	New Delhi	110026	Delhi	Pulkit Gupta	Pulkit@Mdpet.In
33	Umang Fabrics	Plot No 904/1, 905, 906/1, 907, Phase -I, Gidc, Chhatral, Kalol,	Gandhinagar	382729	Gujarat	Dineshkumar Chhotalal Mehta	Ufseals@Gmail.Com
34	Uniplas	2/5b, Shriram Nagar, Mount - Poonamallee Road, Porur	Thiruvallur	600116	Tamil Nadu	Sudheer	Uniplas1996@Gmail.Com
35	Unnitia Polyfab (India) Private Limited	Survey No. 617/P1 Opp. Reliance Pump, Rajkot - Morbi Highway, Tankara	Morbi	363650	Gujarat	Krishna Pavan Kumar Sanghi	Unnitiaipolyfabindia@Gmail.Com



New Members

36	Wheel Flexible Packaging	E- 24/25, 26 Zero Tax Industrial Estate, Near Dadra Check Post,	Dadra	396230	Dadra & Nagar Haveli And Daman & Diu	Balachandran Kammaran Nambiar	Mansi@Wheelpackaging.In
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