



# Plastic Tomorrow

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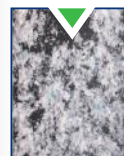
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### Husky Showcases New Barrier Solution, Demonstrates Range of Innovative Technologies for Beverage Packaging, Medical and Hot Runners at NPE 2015

Husky Injection Molding Systems announced that at NPE 2015 it will be showcasing its latest technologies for the beverage packaging, medical and hot runner markets, demonstrating that it provides customers with the highest levels of quality, productivity and reliability.

Located at Booth #2117 in the West Hall, Husky will have a HyPET HPP5 system running at its booth – a fully integrated injection molding system for PET preform manufacturing that provides enabling technologies for the highest levels of productivity and quality. In demonstrating its comprehensive range of solutions for beverage packaging, Husky will be highlighting its dedication to supporting customers through the lifecycle of their systems. The system will be running SHOTSCOPE NX, Husky's integrated process and production monitoring system that provides a real-time snapshot of information to help optimize overall factory efficiency.

NPE will also serve as the official tradeshow introduction to Husky's barrier solution, built on the industry-leading HyPET HPP5 platform. The PET preform barrier module offers manufacturers new possibilities to explore PET as a packaging material for beverages, sauces, and other food products. With the barrier module, packaging manufacturers can now take full advantage of significant cost saving opportunities that were previously impossible for applications that required a barrier.

Husky will also showcase its latest hot runner and controller innovations, including UNIFY pre-assembled manifold systems, ALTANIUM MATRIX2 hot runner and mold controllers, and its ground-breaking next generation valve gate nozzles. Its ALTANIUM controllers are built on a software platform that allows for greater integration with other Husky products, providing a foundation to support total mold control with mold servo-controlled actuation, in addition to valve gate and temperature control.

Completing the Husky booth will be a display highlighting the safety and reliability its solutions offer for the medical industry. Schöttli, recently acquired by Husky, has been able to focus on specific applications and develop mold technology that enables customers to bring the highest quality medical products to market. At NPE, Husky will showcase its targeted, tooling-first technology for select medical applications, including syringes, infusion/transfusion products, and diagnostic systems.

Offering a whole new experience for Husky customers, the overall display at NPE will focus on providing visitors a more intimate opportunity to engage with Husky solutions and representatives. In addition to its full suite of equipment and services for the plastics industry, Husky offers an unmatched level of global support in over 40 countries and a range of aftermarket services to keep equipment running at maximum efficiency. Value-added services include preform development, factory planning, customer training, systems integration and complete asset management.  
www.husky.ca

**COURTESY**

### Lubrizol Completes Acquisition of Warwick Chemicals

The Lubrizol Corporation announces it has completed the acquisition of Warwick Chemicals, a leading global developer, producer and supplier of stain removal technology with hygiene benefits. The transaction was announced on November 24, 2014.

The addition of Warwick Chemicals complements Lubrizol's existing home care product line, strengthening its strategy of providing high-value technology solutions to its global customers. Commenting on the transaction, Rick Tolin, Lubrizol vice president and general manager, personal care and home care said,  
www.lubrizol.com

"The acquisition of Warwick Chemicals enhances our strong portfolio of rheology modifiers, functional polymers and surfactants, and will place us in an excellent position to offer integrated solutions to our customers."

With the close of the transaction, Warwick Chemicals is now part of Lubrizol Advanced Materials, reporting into Lubrizol's personal and home care business and retaining the Warwick Chemicals company name.

**COURTESY**

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Gujarat First Bi-Language English & Gujarati Magazine.

## Netstal Wins PETplanet Award in the Category "Preform + Cap Machine Builder"

Netstal receives the highest marks in four categories

Netstal won the PETplanet award in the category "preform + cap machine builder" at the PETplanet magazine "After Sales Service in Developing Countries" award. Netstal received the highest marks in the categories "responsiveness", "spare parts availability", "effective training" and "pricing and volume discount on aftermarket products".

### Excellent service performance

Investments in machines are made on the basis of a wide variety of deciding factors. When it comes to selecting a service partner, criteria such as the type of relationship a company has with the supplier, the operational reliability of systems and lines as well as the performance of the supplier with regard to service are becoming increasingly important. "I'm excited for the entire Netstal service team that we received the highest marks in these important categories," said Renzo Davatz, Netstal's Vice President Global Service. "We will rigorously continue our strategy of offering our customers innovative services and real added value."

### Comprehensive services in four phases

With its high-quality, quick and precise injection molding machines, Netstal has earned global recognition as a premium manufacturer. "In order to ensure the long and successful service life of Netstal machines and maximize production efficiency,

more comprehensive customer support over a machine's lifetime is increasingly becoming the focus of a long-term partnership. With this in mind, we have refined our service range to our customers' benefit," Davatz explained. With 'Service & Solutions', the services offered by Netstal have been restructured and optimized in terms of content based on the four service life phases start-up, utilization, optimization and end phase. As a result, customers can always take advantage of added value.

### Optimized service packages tailored to individual needs

In order to best serve current customer requirements, the Netstal service experts have put together attractive service packages. "With this solution-oriented and individually tailored approach, customers are able to increase the availability and the efficiency of their machines while reducing costs. By boosting their production efficiency, they are protecting their investment and a lifelong partnership with additional benefits is created," Davatz emphasized. With 'Service & Solutions', customers benefit from a comprehensive service network with competent experts and professional advice. The Netstal service experts have access to the most state-of-the-art technical infrastructure and are available to their customers around the globe to provide direct assistance.

[www.netstal.com](http://www.netstal.com)

**COURTESY**

### Exhibition Detail.

Name of The Exhibition	Place	Date of the Exhibition.
Plastic Myanmar 2015	Tadmadaw Yongon Myanmar	3 to 5 <sup>th</sup> April 2015
China Plast Show-2015	Pazhou Gungzhou	P.R.China 20 to 23 MAY – 2015
Kenya Plast	Narobi ( Kenya)	10 to 12 June-2015
Plastic Vietnam-2015	SECC, Hechi Minherty Vietnam	23 to 25 July 2015-01-14
T.Plas (Plastic & Rubber)	BITEC Bangkok Thailand (W-tplas.com)	26to29 Aug2015
Iplex – 15	Bangalore	25 to 27 Sept-2015
IndPlas	Science City Ground Kolkata	27 to 30 November 2015
Plexpo	Gandhinagar (Gujarat)	8 to 13 January2016
Plast Asia-2016	Pragati Maidian DELHI	4 to 6 <sup>th</sup> March-2016



## PRAYAG BUYS 25TH STEER OMEGA PLATFORM TECHNOLOGY LINE FOR COLOR MASTER BATCH COMPOUND PROCESSING

Gandhinaga, India, February 08, 2015 :- PRAYAG, a leading manufacturer of color and additive master batch manufacturer and STEER, a creator of materials platform technology for plastic compounds processing, today announced at a joint press conference at plastindia, PRAYAG's purchase of STEER Omega platform technology for manufacturing of color master batch. This will be the 25th line to be commissioned by STEER for PRAYAG.

Steer's Omega 1.71 Do/Di platform technology is becoming the most preferred platform for production of color and additive master batch manufacturing of extremely high quality and consistency while providing outstanding value.

Speaking on the occasion, Mr. R.K. Agarwal, CMD, PRAYAG, said, "since 2007, STEER as a technology partner has contributed significantly to the growth of PRAYAG. We place our trust in STEER's Omega technology to meet our customer promise and delivery timelines. We are delighted to add 25th Omega line at our facility in Bhiwadito manufacture color master batch for export to over 85 countries that we serve. There is no better technology in the market available today to manufacture color and additive master batch than omega."

Dr. Babuadmanabhan, managing Director and chief Knowledge officer said, "We are extremely pleased to work with prayag, One of world's fastest growing companies in the field of plastics, that is led by dynamic leadership that reflects our transformational thought process. We respect prayag's commitment in the partnership and congratulate them on adopting the Omega platform as their standard."

About PRAYAG :- Established in 1996, PRAYAG POLYTECH PVT.LTD, has been growing exponentially with a CAGR of over 50% in last 5 years. PRAYAG today, thus has grown to become the leading and the most advanced manufacturer of colour and additive master batches from india.

The company is growing from strength to strength with the help of strong R & D division to develop products for new applications. PRAYAG's 3 production facilities at Bhiwadi, india, with a production capacity of 50,000 MT per annum and multiple dedicated lines for each colour ensures faster deliveries, flexibility and zero contamination.

About STEER :- STEER is a manufacturer and creator of specialized components, machine, system and platforms that effectively transforms and functionalizes materials in the field of polymers, Biopolymers, Pharmaceuticals and Food, using the core application of Co-rotationg Twin Screw Extrusion

Founded in 1993 by Dr. Babuadmanabhan with a vision to steer a new world, STEER today has 5 global offices and 10 satellite offices, serving over 35 countries and employ over 500 gifted engineers, scientists and technicians across the globe.

With many granted patents under its belt, STEER is committed to the creating new designs and technologies that enable our customers to produce the highest quality products, lower operational costs and innovate new products and process that have the potential to improve the overall quality of human life. STEER's Application Development Centers (ADC's) in india USA and japan provides the customer with the appropriate environment to explore, develop and innovate with STEER technology.

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**C O N T E N T S****BUSINESS NEWS.**

Husky Showcase new barrier Solution.....	5
Netstal Wins Pet plant Award.....	6
Prayag Buys 25th Steer Omega platform .....	7

**Co- Profile.**

Amut .....	9
EVENTS.....	12-19
Foreign Exhibition Detail .....	
SUBSCRIPTION .....	20
TECH TALK.....	21
POLYMER PRICE GUIDE .....	22-26

**ADVERTISEMENT DETAIL.**

01. CHAMPANERI ENGINEERS .....	
02. JAYDEEP .....	30
03. PLASTIC UDYOG.....	2
04. PERFECT BIO- PLAST.....	31
05. RUBY PLASTIC MACHINERY.....	1
06. IPLEX-2015 BANGALORE.....	32
07. FIVE STAR ENGINEERS .....	4
08. MAKERS POLYFILMS PVT.LTD.....	29
09. SUHANI ENTERPRISE .....	29
10. SAMET PLAST .....	8
	3

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## NEW PERSPECTIVES FOR IN-LINE THERMOFORMING TECHNOLOGIES

***AMUT has successfully tested and delivered to a large North American producer a complete in-line thermoforming plant for the production of disposable cups (size required by the USA and Canadian markets).***

***The request of the customer presented some very demanding features:***

- ***production of disposable cups both in PS and in PP,***
- ***use of the same lid for the cups produced in PS and PP, after the rimming, assuring a perfect seal to the liquids,***
- ***same cut diameter of 94 mm but with different weight, from 9 to 16 g/ piece, for all 3 products 12 Oz -16 Oz e 22 Oz.***

***AMUT has found the solution to satisfy the requirements of the customer realizing an integrated in-line machine where all the operations are in-line, automatic and continuous, from the raw material dosing unit to the packaging of the finished product, with an in-line total recovery of the thermoforming skeleton.***

***The necessity to produce both materials with the same machine resulted in the selection of a thermoforming machine with an in-mould forming and punching technology and tilting platen: the AMP 850 GP model from the AMUT COMI range.***

***Being one of the largest and fastest machines on the market nowadays, the AMP 850 GP assures to get high outputs, over 63.000 cups/h, and permits to assembly a mould with 33 cavities for cups with a diameter of 94 mm. The production speed achieves the 32 cycles/min.***

***The plant is equipped with a conveying system designed to handle up to 2,3 mm thick sheet and with a heating oven optimised with a management and control system, properly developed for the characteristics of the PS and PP materials.***

***The performances of the mould and forming thermoregulation circuit have been bettered and powered, and the management of the thermoforming thermodynamic cycle has been as well integrated and improved with a new control system.***

***The movement is direct, with high-torque motor of the plug assist unit.***

***The extrusion section becomes very important because, in particular, is required a foil output of 1300 kg/h when cups of 20 Oz are in production.***

*The line is composed by:*

- *feeding and dosing system of the raw materials (dosing at 4 components, one of them, the skeleton grinded material, is run in close loop);*
- *main single screw extruder, AMUT model EA 130, complete of in-screw dosing system driven by a specific software, with a plasticizing capacity up to 1200 kg/h and a vacuum venting unit complete of water management in close loop;*
- *single screw co-extruder AMUT model EA 75 for the external layers;*
- *continuous screen changers and melt gear pump unit both for the main extruder and co-extruder;*
- *feed block suitable to get foil with different layers configuration A/B, BA, A/B/A without stopping the production;*
- *extrusion die with completely automatic regulation and control of the thicknesses;*
- *calibration/cooling vertical calender with rolls of 1000 mm for a homogeneous and efficient cooling of the foil, even at the maximum output (without inner tensions);*
- *gauging thickness unit and related automatic control systems of the extrusion die.*

*The thermoforming unit achieves a speed of 40 cycles/min also with the maximum size of the mould (850 x 560 mm) and it is equipped with an advanced mechanical system of the platen movement which reduces at the minimum level the inertias and the problems related.*

*An automated stacker unit is provided and using vacuum to pick the product which facilitates the start-up operations and permits a continuous and great efficiency in the production as well as with items pretty heavy.*

*The cups produced are discharged and automatically conveyed to the rimming unit that shapes the edge and calibrate accurately the outer diameter to joint perfectly together the lid. This operation is extremely difficult and needs strict quality checks in running conditions.*

*The rimming machine is developed to treat both polymers, PS and PP, with special screws of rim: the 4 screws have an adjustable position with the possibility to change the diameter of the rim in inlet and in outlet.*

*The plant terminates with a packaging unit: the cups can be packed in rows of 20-100 pieces, or in Twin Pack (pair rows of 50-100 pieces).*





**ABSTRACT:**

Plastic waste generated from food packaging is in the form of films, thermocol dishes, coverings, pouches, water bags, carry bags, beverages packaging like bottles, oil cans, milk packaging etc contributed to major damage to the environment. This review paper suggests the different methods for recovery and reusing of plastic waste generated from the food packaging.

**INTRODUCTION:**

The estimated world population by year 2100 would be around 11 billion. The food requirements to support this large a population and their activities come for the most part, directly or indirectly, from daily photosynthesis action of Earth and Sun. Any how to live on this earth we require a food and water. But this daily need would cause difficulties in living if we would not be able to reprocess the wastages generated by ourselves for packaging of these food items.

The wide range of availability of plastics and its properties like ease of forming, heat sealability, barrier, flexibility, impact strength, light weight, reduced package size, and low cost would certainly attract one towards for the packaging of food. But with above some advantages there is major disadvantage with plastic is its non destroyable life.

There are some practices which are frequently used from long ago to destroy the plastic wastes. These are as follow -

1. Land filling: digging earth and filling plastic into it.
2. Incineration: Burning plastic waste
3. Littering: Throw the plastic into the sea

But all above processes which we use for destroying plastics are not sufficient alone to destroy it 100 %. Because land filling of plastic would cause deterioration of land as well as plastic requires hundreds of years to degrade. Incineration or burning would release huge amount of CO<sub>2</sub> which will affect the environment and pouring in sea means nothing but harming the beauty of nature. So it is advisable to better the recycling or reusing the waste plastic generated from food packaging rather than destroying it.

**METHODS OF RECYCLING PLASTIC WASTE GENERATED FROM FOOD PACKAGING****1. RECYCLING OF FOOD PACKAGING FILMS:**

We see now a day lots of foods like potato chips, kurkures, dry nuts, fursans, sweets, fruits, vegetables, drinking water, milk, meat etc get packed in pouches, wrappers, transparent or coloured films. These films are generally made of polymer called as polyethylene. Plastic films for packaging food are very efficient at performing their function, but are inherently difficult to recycle as they are typically manufactured from multiple layers of different polymers and come into contact with food. Multilayer film may be of two or three layers which enhance the barrier properties and hence food gets preserved for long term. But the recycling of these kinds of films becomes difficult as compare to single layer film. Although multilayer films get separated by chemical solvent dipping process or thermomechanical process. After separation the cleaning of all the waste plastic film is carried out. Then these films are get melted and homogenise in agglomerated. The prepared homogenous plastic dough is the extruded in the extruder in the form of long strands which are then further cut in the form of pellets which is called as pelletizer.

The prepared pellets are further used for making films or other plastic items in combination with virgin plastic or pure plastic.

Fig 1: Plastic packaging films

**2. RECYCLING OF FOOD PACKAGING PLASTIC CONTAINERS AND DISPOSABLE CUPS**

Polystyrene foam containers have been used for fast-food

packaging and hot drink cups because it is lightweight, sanitary, recyclable, and insulates to keep foods hot while being cool to touch.

Most polystyrene foam food-service products have never contained chlorofluorocarbons that have been associated with the depletion of the ozone layer as well as these are FDA approved. Other material used as food container of lunch box or we can say "Tiffin" box is nothing but the Polypropylene.

The major issue in recycling of Polystyrene is its collection and its cleanliness. The huge effort is need to be taken for its collection, sorting from other material as well as chemical treatment for its cleaning. Once it Fig 2: Plastic food containers & cups get cleaned, the heated mass of polystyrene is compacted in the metal box in oven and after some time the blocks are manufactured as sheets or slabs. These sheets are further use for the light weight packaging. The Polypropylene recycling is easier as compare to Polystyrene recycling. The waste polypropylene food containers are get cleaned and then crushed into small pieces with the help of grinder. Afterward these small pieces are mixed with virgin polypropylene and used in injection moulding machine for manufacturing other products.

**4. RECYCLING OF BEVERAGES**

The main contributory plastic material for beverage packaging is Polyethylene terephthalate (PET), which is mostly used for drinking water and cold drinks packaging. Other material which used for oil packaging is High density polyethylene (HDPE) and where PET also can be used.

Fig 3: Plastic beverage packaging

The recycling process for PET is slightly different than the rest of the materials we have seen so far. Here we can recover the monomer or reuse the grinded PET bottles.

By mechanical recycling we can grind the cleaned PET bottles in the form of flakes. Then we can extruded and reused as some other product. By chemical recycling such as hydrolysis or methanolysis we can recover the origin monomer such as terephthalic acid (TPA), ethylene glycol (EG) and dimethyl terephthalate (DMT). These monomers can further be reused for the production of pure PET polymer. Lastly PET can be used as source of energy. By incineration process one can generated high calorific value of energy which can be useful for thermal power stations to generate the electricity.

**CONCLUSION:**

There are number of methods and vast range of plastic materials available for food packaging. Not only the methods seen in this review paper but the new methods for solving the problems of food packaging waste has been developed such as pyrolysis, photo-degradation etc. Researchers have taken many efforts to develop the biodegradable food packaging materials. These materials would take large share in market and can possibly replace the conventional materials to give the chance for better stabilization of environment

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## International Packaging Exhibitions



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# VIETNAM



Population	89 Million
Polymer Consumption 12-13	38,00,000 Metric tonnes/annum
Per Capita Consumption	45kg Close to China and more than India
No. of Plastics Processing Units	2,500
Average Processing Capacity	1500 Metric tonnes is much higher than India... 300 Metric tonnes/annum
Domestic Manufacture of Raw Materials	7,00,000 Metric tonnes/annum
Import of Raw Materials	31,00,000 Metric tonnes/annum
Domestic Manufacturers of Processing Machines	Very few – less than 10
Dependence on Imported Processing Machinery	Substantially high
Projected Growth Rate	15-18% more than GDP of Vietnam

## OPPORTUNITIES

The highest growth rate in plastics industry in South East Asia is witnessed only in VIETNAM.

Moderate population, changing lifestyles & increasing middle class spending, buoyant export of plastics finished goods, high growth prospects, significant dependence on imported raw materials and processing machineries.... are all favourable indicators of great opportunities for doing business in VIETNAM.

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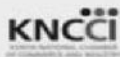
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## EAST AFRICA

Population	145 Million
Polymer Consumption 12-13	1.15 Million tonnes / annum
No. of Plastics Processing Units	Around 1500
Domestic Manufacture of Raw Materials	None
Import of Raw Materials	100%
Domestic Manufacturers of Processing Machines	Nil
Dependence on Imported Processing Machinery	100%
Projected Growth Rate	18-23%

# SRI LANKA



Population	20 Million
Polymer Consumption 12-13	250,000 tonnes / annum
No. of Plastics Processing Units	Around 1000
Domestic Manufacture of Raw Materials	None
Import of Raw Materials	100%
Domestic Manufacturers of Processing Machines	Nil
Dependence on Imported Processing Machinery	100%
Projected Growth Rate	16-25%

## OPPORTUNITIES

Sri Lanka Government is drawing up ambitious plan with focus on exports. Strategically located, this tiny island is all poised to make a big splash in the global markets. The Government has identified Plastics and rubber as focus sectors besides traditional products like tea. In addition to substituting imports with domestic manufacturing and a thrust on exports Sri Lanka's plastics consumption is expected to grow at a rate anywhere between 16-25%.



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## PLASTIVISION ARABIA CURTAIN RAISED ALONG WITH ARABIA MOLD AND PRINT PACK ARABIA



KAMAL SHAH

positive@positiveaggression.in

[kamal@positiveaggression.in](mailto:kamal@positiveaggression.in)પી.વી.સી. ફોર્મ બોર્ડ મેકીંગ — પ્લાસ્ટિકનું પ્લાયવુડ

લાકડું પ્રતિદિન ઘટતું જાય છે, પર્યાવરણવિદો ની નજરમાં આવતી વસ્તુઓ ના ધંધા કરવા માટે તકલીફી વધતી જવાની છે. આવી વસ્તુઓ નો પર્યાય શોધવો જરૂરી હોય છે. પ્લાયવુડના વિકલ્પ તરીકે બનતું અને વધારે સારા ગુણધર્મો ધરાવતું પ્લાસ્ટિકનું પ્લાયવુડ એક ઉત્તમ વિકલ્પ છે.

- ઉધઈ ના લાગે.
- પાણીની અસર ના થાય. માઈકા લગાવવાની જરૂર નહિ.
- વળી ના જાય, વાતાવરણની અસર થતાં વર્ષો લાગે.
- રંગરોગાનની જરૂર નહિ, / વાર્નિશ ની જરૂર નહિ ( તે છતાં પણ કરવું હોય તો કરી શકાય )
- સુથારી કામ માં સમય અને પૈસાની મોટી બચત.
- ઇચ્છિત રંગ, સાઈઝ, જાડાઈ, વજન (ધનતા) માં બનાવી શકાય, જેથી ખર્ચા બચે.

એકજ મોલ્ડ ( ડાઈ ) માંથી પાંચ થી વીસ એમ. એમ. ની જાડાઈ વાળાં, બોર્ડ નીકળી શકે, પહોળાઈ, ઓન લાઈન કાપી શકાય, બોર્ડ બન્યા પછી પણ જરૂર પ્રમાણે પહોળાઈ લઈ શકાય. બાવીસ થી પાંત્રીસ એમ. એમ. જાડાઈ માટે બીજા મોલ્ડની જરૂર પડે.

ઉપરના ફોટામાં જોઈ શકાતું ટેબલ, કબાટ વગેરે પ્લાસ્ટિક પ્લાયવુડ માંથી બનાવેલ છે.

**મહત્વની વાત:** આવું મટીરીયલ બનાવવા માટે જરૂર પડશે:

મૂડી રોકાણ: રૂપિયા ત્રણ કરોડ નેવું લાખ. [ જમીન, બિલ્ડીંગ, મશીનરી, પાવર, કેબલ, પેનલ, ઇન્સ્ટોલેશન વગેરે તમામ ખર્ચ. એક ડોલર ના રૂપિયા સાઈઠ ધારવા પ્રમાણે. સારી ક્વોલિટી ના પ્રોજેક્ટ માટે. ]

અતિ મહત્વની વાતો હવે શરૂ થાય છે.

આવું મટીરીયલ બનાવવા માટે: કાચો માલ અને લાગતની કુલ કિંમત વહેંચતા પ્રતિ કિલોગ્રામ કિંમત બેસે લગભગ રૂપિયા સો { પ્રતિ કિલોગ્રામ } [ લગભગ ચાર કરોડ રૂપિયાના ઇન્વેસ્ટમેન્ટ પર ].. ..

બજારભાવ રૂપિયા એકસો છપ્પન પ્રતિ કિલોગ્રામ. . . . . ગણતરી માટે ધારવામાં આવ્યું પંદર એમ. એમ. નું 0.55 ધનતા વાળું બોર્ડ. આ પ્રમાણે બજારભાવ બેસે: રૂપિયા એકસો વીસ પ્રતિ સ્કેવર ફૂટ.. ..

આ હિસાબે ઉપરોક્ત રોકાણથી કરવામાં આવેલ પ્રોજેક્ટનું વળતર લગભગ રૂપિયા 6,50,00,000/- સુધી થવા જાય છે. . . . .

**ઉપરોક્ત સેટ અપ ( જો ઉત્તમ ક્વોલિટી ની મશીનરી હોય ) માંથી જ બનાવી શકાય:** લાકડું અને પ્લાસ્ટિક ભેગાં કરીને ( વુડ + પ્લાસ્ટિક ) બોર્ડ.

આપણે ત્યાં અત્યારે મરીન પ્લાયવુડ વપરાશમાં છે. ઉપરોક્ત ચિત્રો માં વુડ પ્લાસ્ટિક બોર્ડ છે.

**ઘટનાઓ :**

- વજનમાં ફલકું જેથી ફેરફાર માટે ઓછી કિંમત લાગે,
- પાણીની અસર ના થાય. ઉધઈ ના લાગે.
- લાંબી આવરદા
- ધાબું ભરી ત્યારે સરફેસ ઉત્તમ બને.
- સમયની બચત થાય.

The Author, based at Ahmedabad, is a Professional consultant assisting to set up Lucrative / new projects.



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**Latest International Polymer offers: (USD/mt.)**

Grade (Application)	<u>S.E.A-</u>	<u>FEA</u>	<u>China</u>	<u>Hong Kong</u>	<u>Middle East</u>	<u>Europe</u>
Poly Propylene:P.P	( \$/mt-FOB)	( \$/mt-FOB)	Main port, \$/mt	(\$/mt-FOB)	(\$/mt-FOB)	(€ /mt-FD NWE)
Raffia (Homo Polymer)	1320	1315	1320	1285	1300	1,135
Injection moulding , (11 M.F.I.)	1320	1310	1320	1280	1300	1,135
Film (Tubular quench-T.Q.) ,	1350	1345	1350	1300	1330	1,150
B.O.P.P.	1360	1355	1370	1345	1340	1,220
Impact Co-Polymer (I.C.P or P.P.C.P.)	1370	1365	1370	1440	1350	1,210
Random Co-Polymer ,(R.C.P.)	1360	1360	1365	1445	1345	1,220
Grade (Application)	<u>S.E.A-</u>	<u>FEA</u>	<u>China</u>	<u>Hong Kong</u>	<u>Middle East</u>	<u>Europe</u>
High Density Poly Ethylene: H.D.P.E.	( \$/mt-FOB)	( \$/mt-FOB)	Main port, \$/mt	(\$/mt-FOB)	(\$/mt-FOB)	(€ /mt-FD NWE)
Raffia	1310	1305	1305	1310	1285	1,245
Film	1320	1310	1315	1295	1290	1,235
Injection moulding ( 18 M.F.I.)	1320	1315	1315	1305	1295	1,230
Blow moulding	1330	1320	1325	1305	1300	1,230
HM Pipe (P.E.-80 )	1340	1325	1325	1325	1305	1,250
HM Film	1350	1340	1335	1325	1315	1,260
HM Blow	1350	1335	1330	1355	1310	1,250
Grade (Application)	<u>S.E.A-</u>	<u>FEA</u>	<u>China</u>	<u>Hong Kong</u>	<u>Middle East</u>	<u>Europe</u>
Linear Low Density Poly Ethylene:L.L.D.P.E.	( \$/mt-FOB)	( \$/mt-FOB)	Main port, \$/mt	(\$/mt-FOB)	(\$/mt-FOB)	(€ /mt-FD NWE)
Film (1 , M.F.I.)	1320	1310	1300	1345	1290	1,265
Rotomoulding	1350	1345	1335	1370	1325	1,255
Injection moulding (High M.F.I.)	1370	1350	1340	1360	1330	1,245
Lamination	1385	1370	1355	1370	1345	1,265
Grade (Application)	<u>S.E.A-</u>	<u>FEA</u>	<u>China</u>	<u>Hong Kong</u>	<u>Middle East</u>	<u>Europe</u>
Low Density Poly Ethylene:L.D.P.E.	( \$/mt-FOB)	( \$/mt-FOB)	Main port, \$/mt	(\$/mt-FOB)	(\$/mt-FOB)	(€ /mt-FD NWE)
General Purpose / Film grade	1330	1310	1305	1310	1290	1,255
Heavy Duty	1350	1330	1325	1445	1310	1,270
Lamination / Extrusion	1390	1370	1365	1490	1350	1,305
Injection Moulding	1420	1405	1395	1500	1380	1,295
Grade (Application)	<u>S.E.A-</u>	<u>FEA</u>	<u>China</u>	<u>Hong Kong</u>	<u>Middle East</u>	<u>Europe</u>
Poly Vinyl Chloride :P.V.C.	( \$/mt-FOB)	( \$/mt-FOB)	Main port, \$/mt	(\$/mt-FOB)	(\$/mt-FOB)	(€ /mt-FD NWE)
Suspension (Pipe / Extrusion) ,	960	980	945	-	970	-
Injection Moulding,"K" Value 57	990	1010	975	-	1000	-

**Latest International Polymer offers For Indian market: (USD/mt.**

<u>Grade (Application)</u>	<u>CNF Nhava Sheva:(\$ /mt)</u>					<u>Trend</u>	<u>*Landing rate(NS,Mumbai )</u>			<u>Last week</u>
<b>Poly Propylene:P.P</b>	<u>\$</u>	<u>From</u>	-	<u>\$</u>	<u>To</u>	-	<u>\$/Rs.Exchange rate</u>		<b>63.20</b>	<u>Report \$</u>
Raffia (Homo Polymer)	\$	1310	To	\$	1320	Up	Rs.	103414	To	104195 (+ 45)
Injection moulding , (Homo polymer,11 M.F.I.)	\$	1310	To	\$	1320	Up	Rs.	103414	To	104195 (+ 45)
Film (Tubular quench-T.Q.) , (Homo polymer)	\$	1340	To	\$	1350	Up	Rs.	105759	To	106541 (+ 45)
B.O.P.P.	\$	1350	To	\$	1360	Up	Rs.	106541	To	107323 (+ 50)
Impact Co-Polymer (I.C.P or P.P.C.P.)	\$	1360	To	\$	1370	Up	Rs.	107323	To	108104 (+ 50)
Random Co-Polymer ,(R.C.P.)	\$	1360	To	\$	1370	Up	Rs.	107323	To	108104 (+ 50)
<u>Grade (Application)</u>	<u>CNF Nhava Sheva:(\$ /mt)</u>					<u>Trend</u>	<u>*Landing rate(NS,Mumbai )</u>			<u>Last week</u>
<b>High Density Poly Ethylene: H.D.P.E.</b>	<u>\$</u>	<u>From</u>	-	<u>\$</u>	<u>To</u>	-	<u>\$/Rs.Exchange rate</u>		<b>63.20</b>	<u>Report \$</u>
Raffia	\$	1310	To	\$	1320	Stable	Rs.	103414	To	104195 (+ 5)
Film	\$	1320	To	\$	1330	Stable	Rs.	104195	To	104977 (+ 10)
Injection moulding ( 18 M.F.I.)	\$	1320	To	\$	1330	Stable	Rs.	104195	To	104977 (+ 10)
Blow moulding	\$	1330	To	\$	1340	Stable	Rs.	104977	To	105759 (+ 5)
HM Pipe (P.E.-80 )	\$	1340	To	\$	1350	Stable	Rs.	105759	To	106541 (+ 5)
HM Film	\$	1350	To	\$	1360	Stable	Rs.	106541	To	107323 (+ 5)
HM Blow	\$	1350	To	\$	1360	Stable	Rs.	106541	To	107323 (+ 5)
<u>Grade (Application)</u>	<u>CNF Nhava Sheva:(\$ /mt)</u>					<u>Trend</u>	<u>*Landing rate(NS,Mumbai )</u>			<u>Last wee</u>
<b>Linear Low Density Poly Ethylene:L.L.D.P.E.</b>	<u>\$</u>	<u>From</u>	-	<u>\$</u>	<u>To</u>	-	<u>\$/Rs.Exchange rate</u>		<b>63.20</b>	<u>Report \$</u>
Film (1 , M.F.I.)	\$	1320	To	\$	1330	Stable	Rs.	104195	To	104977 N/C
Rotomoulding	\$	1350	To	\$	1360	Stable	Rs.	106541	To	107323 N/C
Injection moulding (High M.F.I.)	\$	1370	To	\$	1380	Stable	Rs.	108104	To	108886 N/C
Lamination	\$	1385	To	\$	1395	Stable	Rs.	109277	To	110059 N/C
<u>Grade (Application)</u>	<u>CNF Nhava Sheva:(\$ /mt)</u>					<u>Trend</u>	<u>*Landing rate(NS,Mumbai )</u>			<u>Last week</u>
<b>Low Density Poly Ethylene:L.D.P.E.</b>	<u>\$</u>	<u>From</u>	-	<u>\$</u>	<u>To</u>	-	<u>\$/Rs.Exchange rate</u>		<b>63.20</b>	<u>Report \$</u>
General Purpose / Film grade	\$	1330	to	\$	1340	Stable	Rs.	104977	To	105759 N/C
Heavy Duty	\$	1350	to	\$	1360	Stable	Rs.	106541	To	107323 N/C
Lamination / Extrusion	\$	1390	to	\$	1400	Stable	Rs.	109668	To	110450 N/C
Injection Moulding	\$	1420	to	\$	1430	Stable	Rs.	112013	To	112795 N/C
Milk Pouch	\$	1420	to	\$	1430	Stable	Rs.	112013	To	112795 N/C
<u>Grade (Application)</u>	<u>CNF Nhava Sheva:(\$ /mt)</u>					<u>Trend</u>	<u>*Landing rate(NS,Mumbai )</u>			<u>Last week</u>
<b>Poly Vinyl Chloride :P.V.C.</b>	<u>\$</u>	<u>From</u>	-	<u>\$</u>	<u>To</u>	-	<u>\$/Rs.Exchange rate</u>		<b>63.20</b>	<u>Report \$</u>
Suspension (Pipe / Extrusion) ," K' Value 67	\$	960	to	\$	970	Stable	Rs.	76051.26	To	76833.05 (+ 5)
Injection Moulding,"K" Value 57	\$	990	to	\$	1000	Stable	Rs.	78396.62	To	79178.40 (+ 5)
<u>Grade (Application)</u>	<u>CNF Nhava Sheva:(\$ /mt)</u>					<u>Trend</u>	<u>*Landing rate(NS,Mumbai )</u>			<u>Last week</u>
<b>Poly Styrene:P.S.</b>	<u>\$</u>	<u>From</u>	-	<u>\$</u>	<u>To</u>	-	<u>\$/Rs.Exchange rate</u>		<b>63.20</b>	<u>Report \$</u>

GPPS	\$	1260	to	\$	1270	Up	Rs.	99505	To	100287	( + 10)
HIPS	\$	1350	to	\$	1360	Up	Rs.	106541	To	107323	( + 10)
<u>Grade (Application)</u>		<u>CNF Nhava Sheva:(\$ /mt)</u>				<u>Trend</u>	<u>*Landing rate(NS,Mumbai )</u>			<u>Last week</u>	
A.B.S (Acrlonitrile Butadiene Styrene)	\$	<u>From</u>	-	\$	<u>To</u>	-	<u>\$/Rs.Exchange rate</u>		<u>63.20</u>		<u>Report \$</u>
ABS	\$	1590	to	\$	1600	Up	Rs.	125304	To	126085	( + 30)
<u>Grade (Application)</u>		<u>CNF Nhava Sheva:(\$ /mt)</u>				<u>Trend</u>	<u>*Landing rate(NS,Mumbai )</u>			<u>Last week</u>	
E.V.A 18 %	\$	<u>From</u>	-	\$	<u>To</u>	-	<u>\$/Rs.Exchange rate</u>		<u>63.20</u>		<u>Report \$</u>
E.V.A 18 %	\$	1650	to	\$	1660	Up	Rs.	129994	To	130776	N/C
<u>Grade (Application)</u>		<u>CNF Nhava Sheva:(\$ /mt)</u>				<u>Trend</u>	<u>*Landing rate(NS,Mumbai )</u>			<u>Last week</u>	
P.E.T.	\$	<u>From</u>	-	\$	<u>To</u>	-	<u>\$/Rs.Exchange rate</u>		<u>63.20</u>		<u>Report \$</u>
P.E.T.	\$	980	to	\$	990	Up	Rs.	77615	To	78397	( + 15)

**Note:**

- 1.) Care has been taken for Polymer rate & accuracy part is concerned. This rate gives a general idea & overview of International Rate of diff. polymers. There are chances of having rate difference depending upon Qty., Port , Make, Origin & Payment terms.
- 2.) Data given here above has been collected from reliable sources & published in good faith only. We don't take any responsibility for the decision taken basis on any part of this report.
- 3.) Calculation of imposed duty in respective polymer has been taken in general, pl. consider Anti-dumping duty to any sp.polymer, port or Origin make if it is applicable.

### 📌 Today's Indian Domestic Polymer Price: (Rs/Kg)

<u>Poly Propylene</u>	<u>Availability</u>	<u>Ahmadabad</u>	<u>Mumbai</u>	<u>Delhi</u>	<u>Bangalore</u>	<u>Chennai</u>	<u>Indore</u>	<u>Kolkata</u>
H030SG (Raffia)	Available	118.50	117.50	119.50	120.25	120.75	119.50	122.00
H350FG (Lamination)	Available	115.00	114.00	116.00	116.75	117.25	116.00	121.00
H100EY (Film)	Available	124.00	122.50	124.00	125.50	125.00	124.50	127.50
H110MA (Inj. Mldg)	Available	120.00	118.50	121.50	120.50	122.50	120.50	121.00
AM120N (Inj.mldg)	Available	119.50	118.00	121.00	121.00	121.50	120.00	120.00
110MG (Inj.Mldg)	Available	119.00	117.50	120.50	120.25	120.75	119.25	122.50
MI3530 (CP-Inj.mldg)	Available	127.00	125.75	128.25	128.50	129.00	127.75	129.75
R 120 MK(RCP)	Shortage*	130.50	129.00	130.50	131.75	133.00	131.00	132.50
RCP SRN 20 NC	Shortage*	131.00	129.75	131.50	132.50	133.75	131.75	131.00
H050 MN	Shortage*	128.00	129.00	130.75	132.00	134.00	131.00	132.75
<u>IOCL - PP</u>		<u>Ahmadabad</u>	<u>Mumbai</u>	<u>Delhi</u>	<u>Bangalore</u>	<u>Chennai</u>	<u>Indore</u>	<u>Kolkata</u>
H1110 MG	Available	118.50	117.50	120.50	120.25	120.75	119.50	120.00
PP IM-HMEL M 12 RR	Available	117.50	116.50	119.50	119.25	119.75	118.50	121.50
PP Film	Available	121.50	120.50	123.00	123.25	123.75	122.50	124.00
<u>H.D.P.E. Raffia</u>		<u>Ahmadabad</u>	<u>Mumbai</u>	<u>Delhi</u>	<u>Bangalore</u>	<u>Chennai</u>	<u>Indore</u>	<u>Kolkata</u>
E 52009	Available	119.00	117.00	118.25	119.75	120.25	118.50	120.25
W 50A009 / W 52	Available	118.50	116.75	118.00	119.50	120.00	118.25	120.00
T 9	Not Available	N/A	N/A	N/A	N/A	N/A	N/A	N/A



<u>H.D.P.E. Inj. Mldg</u>		<u>Ahmadabad</u>	<u>Mumbai</u>	<u>Delhi</u>	<u>Bangalore</u>	<u>Chennai</u>	<u>Indore</u>	<u>Kolkata</u>
50 MA 180	Shortage*	118.00	116.50	117.00	119.00	119.25	118.00	119.00
M 60200	Shortage*	117.50	115.75	117.00	118.50	118.75	117.25	119.00
M 5018L	Not Available	N/A	N/A	N/A	N/A	N/A	N/A	N/A
I 50 A 180	Available	118.00	116.00	116.25	118.50	119.00	117.25	117.75
180M50 ( IOCL)	Available	117.00	115.75	116.00	118.25	118.75	117.00	117.00
<u>H.D.P.E. H.M.(Film)</u>		<u>Ahmadabad</u>	<u>Mumbai</u>	<u>Delhi</u>	<u>Bangalore</u>	<u>Chennai</u>	<u>Indore</u>	<u>Kolkata</u>
003DF49 (IOCL)	Available	113.50	112.25	111.75	115.00	115.50	113.75	114.50
F 5400	Available	116.00	114.50	114.00	117.25	117.75	116.00	115.50
GAIL 55 (F55HM)	Available	115.00	113.50	113.00	116.00	116.50	115.00	114.50
F46003	Available	111.00	110.00	111.00	112.50	113.25	111.50	112.00
<u>H.D.P.E. BLOW</u>		<u>Ahmadabad</u>	<u>Mumbai</u>	<u>Delhi</u>	<u>Bangalore</u>	<u>Chennai</u>	<u>Indore</u>	<u>Kolkata</u>
B52	Available	118.50	117.50	116.50	120.25	120.75	119.50	116.50
012DB54 (IOCL)	Available	117.00	116.00	115.00	118.75	119.25	118.00	116.00
B 6401	Not Available	N/A	N/A	N/A	N/A	N/A	N/A	N/A
B56003/54GB	Available	119.00	118.00	121.00	120.75	121.25	120.25	119.00
<u>LLDPE FILM</u>		<u>Ahmadabad</u>	<u>Mumbai</u>	<u>Delhi</u>	<u>Bangalore</u>	<u>Chennai</u>	<u>Indore</u>	<u>Kolkata</u>
LL F19010	Available	120.50	119.50	121.00	122.25	123.25	121.00	118.50
HPL 71601	Not Available	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<u>LLDPE ROTO</u>		<u>Ahmadabad</u>	<u>Mumbai</u>	<u>Delhi</u>	<u>Bangalore</u>	<u>Chennai</u>	<u>Indore</u>	<u>Kolkata</u>
HPL 73204T	Not Available	N/A	N/A	N/A	N/A	N/A	N/A	N/A
36RA045	Available	118.00	117.00	117.75	119.75	120.25	118.50	115.00
<u>L.L.D.P.E lamination</u>		<u>Ahmadabad</u>	<u>Mumbai</u>	<u>Delhi</u>	<u>Bangalore</u>	<u>Chennai</u>	<u>Indore</u>	<u>Kolkata</u>
E24065	Shortage*	119.00	117.75	120.25	121.25	121.50	119.25	120.00
<u>L.D.P.E.</u>		<u>Ahmadabad</u>	<u>Mumbai</u>	<u>Delhi</u>	<u>Bangalore</u>	<u>Chennai</u>	<u>Indore</u>	<u>Kolkata</u>
24 FS 040	Available	124.00	122.00	124.00	124.75	125.25	123.50	127.00
16 MA 400	Available	126.00	124.50	126.50	128.50	129.50	126.00	128.00
1070 LA 17	Available	148.00	146.00	149.00	149.00	150.00	150.00	150.00
<u>LLDPE INJ.MLDG</u>		<u>Ahmadabad</u>	<u>Mumbai</u>	<u>Delhi</u>	<u>Bangalore</u>	<u>Chennai</u>	<u>Indore</u>	<u>Kolkata</u>
M26500	Available	120.00	118.75	120.25	121.75	122.75	120.50	121.00
<u>PVC</u>		<u>Ahmadabad</u>	<u>Mumbai</u>	<u>Delhi</u>	<u>Bangalore</u>	<u>Chennai</u>	<u>Indore</u>	<u>Kolkata</u>
K - 6701	Available	81.00	80.00	81.25	82.00	82.50	81.50	83.00
K - 5701	Available	82.00	81.00	83.00	83.00	84.00	82.50	84.00
Imported Mat.67 (K-Value)	Available	79.50	78.50	79.75	80.00	81.50	80.00	81.25
<u>Poly Styrene:P.S.</u>		<u>Ahmadabad</u>	<u>Mumbai</u>	<u>Delhi</u>	<u>Bangalore</u>	<u>Chennai</u>	<u>Indore</u>	<u>Kolkata</u>
GPPS	Available	115.00	114.00	117.00	116.50	117.25	115.50	118.00
HIPS	Available	118.00	117.00	120.00	119.50	120.25	118.50	121.00
<u>A.B.S</u>		<u>Ahmadabad</u>	<u>Mumbai</u>	<u>Delhi</u>	<u>Bangalore</u>	<u>Chennai</u>	<u>Indore</u>	<u>Kolkata</u>
920 (Ineos)	Available	138.00	136.00	137.00	138.75	139.25	137.25	139.25
700 Coloured ABS	Available	157.00	155.00	156.00	157.75	158.25	156.25	158.25

P E T		Ahmadabad	Mumbai	Delhi	Bangalore	Chennai	Indore	Kolkata
PET 5801	Available	99.50	98.25	99.50	101.00	101.50	99.75	100.50
Imported Material								
LL Film (1 M.F.I)		Ahmadabad	Mumbai	Delhi	Bangalore	Chennai	Indore	Kolkata
Imported LL	Available	115.00	113.00	114.00	115.00	115.75	114.50	114.00
Sabic	Available	115.50	113.50	114.50	115.50	116.00	115.00	116.50
HM film		Ahmadabad	Mumbai	Delhi	Bangalore	Chennai	Indore	Kolkata
TR 144	Available	113.50	112.50	113.25	115.25	115.75	114.00	114.25
Sabic	Available	113.00	111.75	112.50	114.50	115.00	113.25	113.50
Mobil	Available	113.75	112.75	113.50	115.50	116.00	114.25	114.50
LDPE LAMI. (7 M.F.I.)		Ahmadabad	Mumbai	Delhi	Bangalore	Chennai	Indore	Kolkata
Titan	Available	142.00	140.00	143.00	142.75	143.25	141.50	145.50
Hanwa	Available	141.50	139.50	143.00	142.25	142.75	141.00	145.50
Engineering Material		Ahmadabad	Mumbai	Delhi	Bangalore	Chennai	Indore	Kolkata
Nylon 6 (GSFC)	Available	209.00	207.75	208.00	210.50	211.00	209.00	209.50
Nylon 6 6 (dupont)	Available	238.00	236.75	237.00	239.50	240.00	238.00	238.50
Nylon GF 30%	Available	181.00	179.75	180.00	182.50	183.00	181.00	181.50
Delrin	Available	100.00	98.75	100.25	101.50	102.00	100.00	101.75
Plain PBT	Available	162.00	160.75	161.00	163.50	164.00	162.00	162.50
Poly Carbonate-BAYER-PC		Ahmadabad	Mumbai	Delhi	Bangalore	Chennai	Indore	Kolkata
2407 General Purpose	Available	175.50	174.25	174.50	177.00	177.50	175.75	176.00
2858 Medical grade	Available	230.50	229.25	229.50	232.00	232.50	230.75	231.00
S.A.N (Ineos) 2300	Available	144.50	143.25	146.25	146.00	146.50	144.75	147.75
EVA: 18%	Available	133.75	130.75	132.75	133.75	134.00	132.75	134.00
EVA: 28%	Available	136.00	133.00	135.00	136.00	136.25	135.00	136.25

Sr. No.	Monomer	Friday	Diff
1	Naphtha (C & F Japan)	\$525	-\$15
2	Propylene (CFR China)	\$1,065	Stable
3	Ethylene (CFR SEA)	\$1,295	Stable
4	VCM	\$780	Stable
5	EDC	\$300	Stable
6	Styrene (CFR China)	\$1,190	Stable

Last Indian Rate revision-1/4/15					Last Indian rate revision: 2/4/15				
Company	Polymer	Change	Rs/Mt	Approx (\$/Mt)	Company	Polymer	Change	Rs/Mt	Approx (\$/Mt)
RIL	PP	Stable	No Change	Stable	IOCL	PP	Up	₹ 2,000	\$31.65
	HDPE Film/ Inj.Mldg	Up	₹ 1,000	₹ 15.82		HDPE	Up	₹ 3,000	Stable
	HM Pipe	Up	₹ 2,000	₹ 31.65		LLDPE	Up	₹ 3,000	Stable
	LLDPE Hi flow/Oct.	Up	₹ 1,000	₹ 15.82		LBM	Up	Trade discount: Rs.2/kg. has discontinued.	
	Other HDPE/ LLDPE	Up	₹ 1,500	₹ 23.73		MBM	Up		
	LDPE	Stable	No Change	Stable	GAIL	HDPE	Up	₹ 4,000	\$63.29
	PVC	Stable	No Change	Stable		LLDPE	Up	₹ 3,000	\$47.47
	EVA /PET	Stable	No Change	Stable		LLDPE Film	Up	₹ 1,000	\$15.82
For More Detal Contact <a href="http://www.polymerbazaar.com">www.polymerbazaar.com</a> , +91 9374524365, +91 79 26644357									



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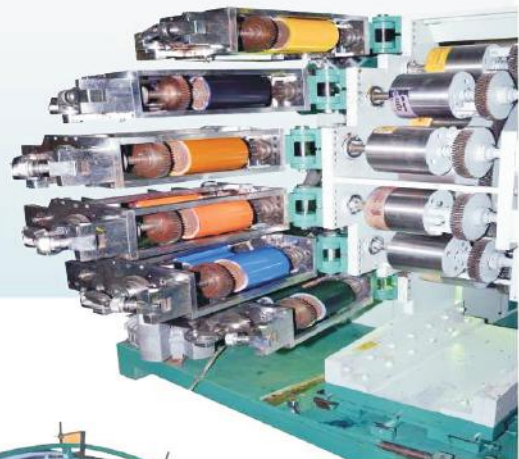
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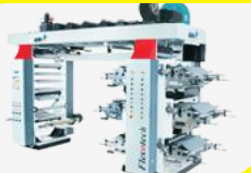
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