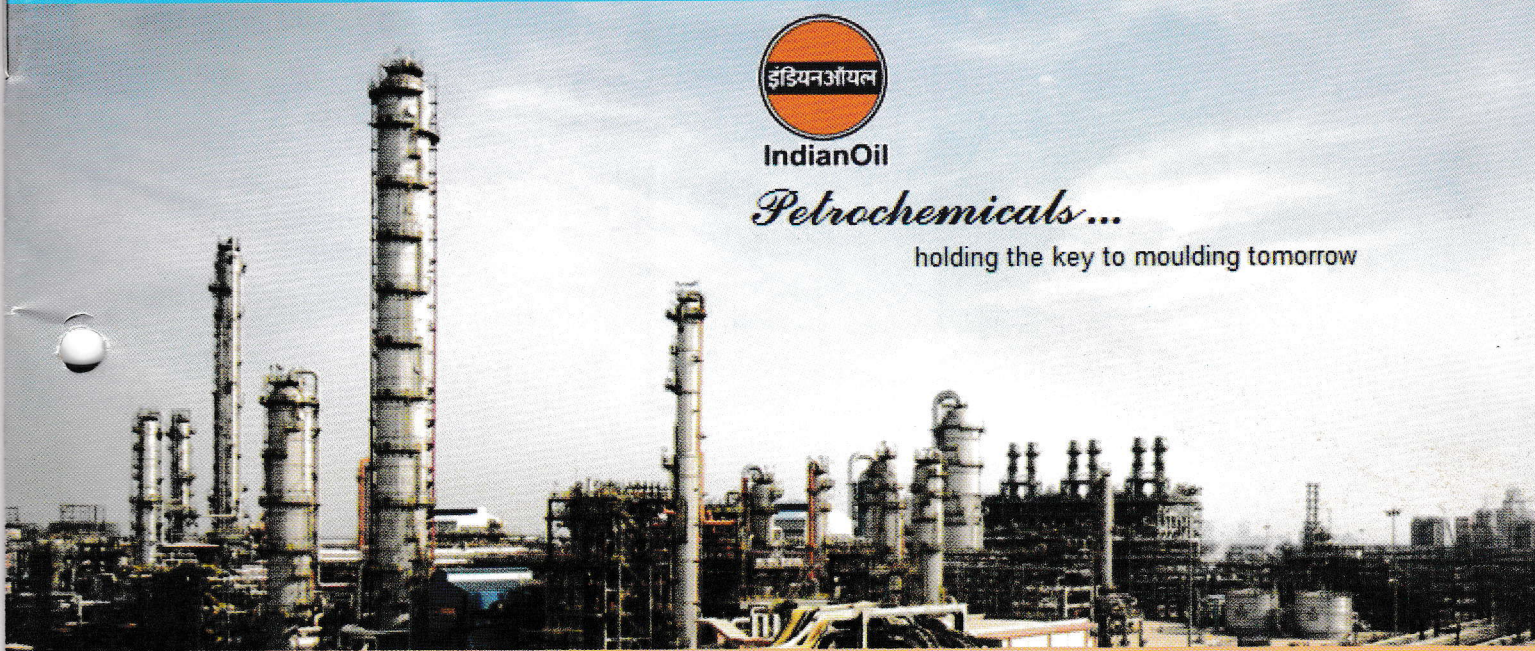




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## PLASTICS INDIA

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

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**INDIAN PLASTICS FEDERATION**

8B, Royd Street, 1st Floor  
Kolkata - 700 016 (INDIA),  
Phone: 2217 5699 / 5700 / 6004  
Telefax : 91-33-2217 6005  
Email : ipf@cal2.vsnl.net.in  
Web : www.theipf.in

**Editor : Sri Pradip Nayyar**

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# Editorial



Dear Members,

Good day !

'Happy Holi' to you and your family.

By the time this volume of Plastics India reaches you the Union Finance Minister will have already presented his budget to the Parliament. The election in five states has been completed and many are speculating that the outcome of this election may affect the Union Budget. The market and industry have already started speculating that given the outcome of the election, the Union Finance Minister may present a populist budget that may not be market and industry friendly. Keeping all speculations aside there has been no let up in the working of the Federation and work on our upcoming exhibition Indplas'12 is going on in full swing.

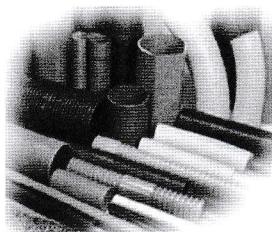
The nation looks forward to the 2012-13 Union Budget to be presented by Finance Minister Pranab Mukherjee on March 16. The budget for 2012-13 is likely to be presented against a backdrop of difficult economic outcomes during the current year. The growth rate for the year is turning out to be weaker than expected and the fiscal deficit is likely to be much higher than the forecast. The fiscal slip is an outcome of both revenues falling short of forecasts and expenditure exceeding targets. The key issue that concerns industry players is whether there could be an announcement of excise duty hike to augment budgetary resources for the government. The Union budget is always the most awaited document. The Business world, industrialists, salaried and almost everybody keep their fingers crossed during this period of the year. This is obvious as the budget is a financial statement of an entire financial year and it decides and affects all the financial activities of that particular year.

As far as fresh investments are concerned, out of the fresh projects worth Rs.22 lakh crore to be commissioned during 2010-13. Rs.8 lakh crore is expected to be commissioned in 2012-13. The electricity sector alone is expected to commission projects worth Rs.4.4 lakh crore by March 2013. These will add power generation capacity of 81,000 mw. The private sector will take the lead in capacity addition.

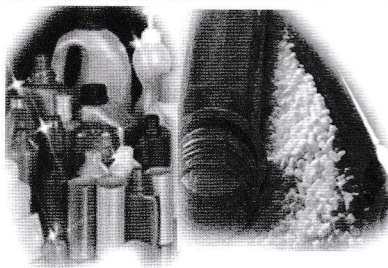
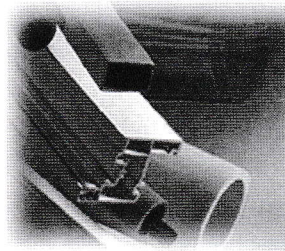
The steel industry is slated to add 729 lakh tonnes of fresh production capacity at a cost of Rs.2.4 lakh crore by March 2013. The largest contributor to this sector will also be in the private sector. The continuous flow of fresh investment announcements reflects the confidence of Indian corporates and the foreign companies in the sustainability of the growth in demand.

Yours truly,

**Pradip Nayyar**  
Editor

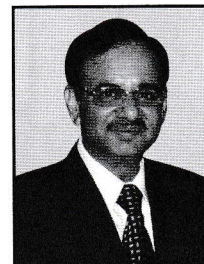


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# PRESIDENTIAL ADDRESS



Dear Members,

First of all I would like to wish all our members good wishes on the occasion of the festival of colours i.e. "HOLI". I thank all of you who have come to the Poly Park on 10th of March 2012 to participate in the Holi meet organized by Indian Plastics Federation (IPF). This was followed by visit to IPF - Knowledge Centre (KC) site where IPF - Knowledge Centre will be formed at Sankrail, Howrah. This land was given by the Government of West Bengal for setting up a training-cum-testing centre.

The interactive session with our own Janab Firhad Hakim (Bobbyda) – Hon'ble Minister of Municipal Affairs and Urban Development, GoWB at the Poly Park was very fruitful. Janab Firhad Hakim has promised all possible support for the plastics industry.

We are now looking forward to Indplas'12 exhibition. I request all the members to come forward whole heartedly and work together for the thumping success of Indplas"12. I have full confidence in you. Again wishing you and family a very happy and colourful holi.

Thanking you,

With warm regards

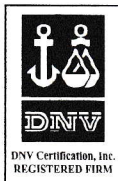
A handwritten signature in black ink, appearing to read "Rajesh Mohta".

**Rajesh Mohta**  
*President*

# POLYBOND

## ANTI-VIBRATION MOUNTINGS

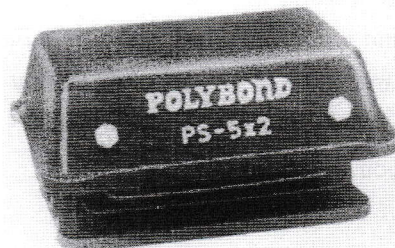
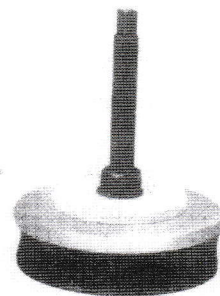
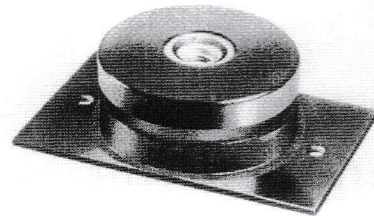
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## SECRETARIAL REPORT



Dear Members,

Holi, the festival of colour is over. It has got mythological, cultural, social and biological significance. Holi helps to bring the society together and strengthen the secular fabric of our country as the festival is celebrated widely by all. The tradition of the Holi is that even the enemies turn friends on Holi and forget any feeling of hardship that may be present. Besides, on this day people do not differentiate between the rich and poor and everybody celebrate the festival together with a spirit of bonhomie and brotherhood. This year we had our usual Holi meet, an interactive session with Janab Firhad Hakim, Hon'ble Minister of Municipal Affairs & Urban Development, GoWB and lunch at IPF Knowledge Centre site on 10<sup>th</sup> March 2012 which I hope you had all enjoyed well.

The Indian Centre for Plastics in the Environment (ICPE) has confirmed their participation in Indplas'12. We have had negotiations with the National Committee of Plasticulture Applications in Horticulture (NCPAH), New Delhi and are hopeful of their participation.

Members may be pleased to know that land filling and construction of the boundary wall on our plot at IPF KC is complete. Measuares are being taken to start the construction of the Centre before the onset of monsoon.

The Federation has appointed an electrical consultant to handle the electrical aspects of Indplas'12. This has been necessitated due to a bad experience we have had in our previous exhibiton held in 2006.

This year also the Federation has decided to take a delegation to Chinaplas 2012 scheduled to be held at Shanghai New International Expo Centre, Shanghai, PR China from April 18 - 21, 2012. We have finalised the Chinaplas 2012 tour with SOTC. Shri Dipak Gathani has been appointed as Convenor of Chinaplas2012 tour. Only 35 tickets have been blocked. Since there is great enthusiasm for this tour, members interested in participating may kindly contact Shri Dipak J. Gathani (M: 98300 39614; email: [dipak.gathani@rajdagroup.com](mailto:dipak.gathani@rajdagroup.com)) at the earliest and get their seats reserved. Booking is being accepted on first come first serve basis. Wishing members a very Happy Colourful Holi.

With best wishes,

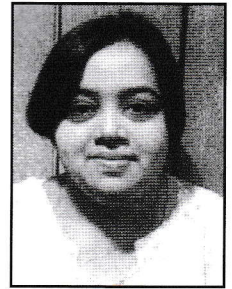
A handwritten signature in black ink, appearing to be 'Pradip Nayar'.

**Pradip Nayar**

*Hony. Secretary*

# “New End Use Innovations in High Density Polyethylene Agrishade Nets For Lowering Airconditioning Bills”

– Ms Poorvi C. Desai, Sr. Manager, Business Development – Polymers, Reliance Industries Limited



## Plastics For Entrepreneurs

Plastics bring new born projects each day bringing more number of entrepreneurs in Indian Industry. Plastics have been tying up new enduses which brings in “Plastic Industry- Dawn of Indian Industry”. Plastics brings about a flexibility for entrepreneurs to produce a wide range of products with an increased product mix, which brings about flexible products such as high density polyethylene agrishade nets for preventing sunlight from entering homes. Product innovations are the ones which arise from imagination and enduse innovations are the ones which include new enduses for existing products. To innovate has been the job of innovators, innovations has been due to the characteristic of this versatile plastics.

## High Density Polyethylene Agrishade Nets for Entrepreneurs

The term “agrishade net” is used for a net which prevents excess sunlight from entering into the plants and help retain moisture levels in the soil for proper growth of these plants leading to an increase in productivity(yield) of the plants.



1. Agrishade Nets are the best way to protect your crops against the ravages of nature : solar radiation, frost, wind & birds
2. Agrishade Nets as :
  - Bird protection net
  - Insect protection net
  - Mulch mat(weed control mat)
  - Scaffolding net

## Advantages of HDPE Shade Net

1. Light Control : Enhances photosynthesis by manipulating the amount and quality of light by means of various densities of netting
2. Temperature Control : Improves productivity by moderating extremes of temperatures. Prevents sun burn and frost damage. The special knitted construction “breathes”, allowing hot air to escape.
3. Saves water upto 60%
4. Saves on fertilizer costs
5. Reduces wind, hail, bird and insect damage to crops
6. High density polyethylene will not decay or absorb moisture
7. Ultra-violet ray stabilization prevents degradation by sunlight

## Useful benefits

1. Air movement is restricted, thus reducing wind damage to the crop and evaporation of soil moisture
2. Air beneath the shade cloth stays humid which is of



further benefit to the plant

3. Shade cloth provides a physical barrier against hail and heavy rain and keeps many birds and insects off the crop

### **Vegetables where HDPE Agrishade Nets could be used**

1. Tomato
2. Maize
3. Bhendi

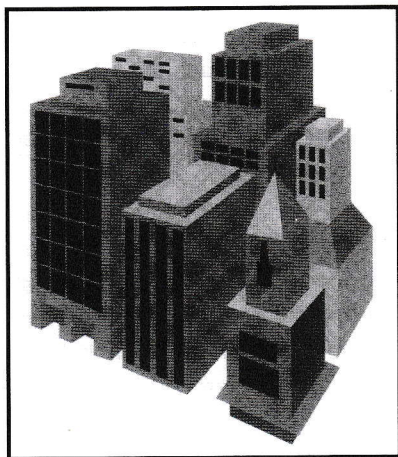
Amongst the leafy vegetables - Sorrel

New End Use Innovations of High Density Polyethylene Agrishade Nets - To Lower Consumption of Airconditioning

(1) HDPE Agrishade Nets as a shade on the top of the terrace of the building for lowering airconditioning bills

1. Product Specifications & Selling Price of High Density Polyethylene Agrishade Nets

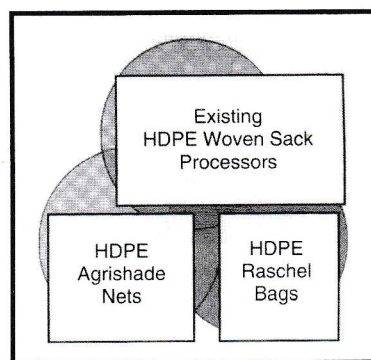
HDPE Agrishade Nets - 4.5 mts wide fabric, 2mm tape width, 400 gsm, 2000 Denier – Rs 155 /kg (incl ED)



- Heat reduces by 5 Degrees during 9'O Clock to 4'O Clock
  - Air Conditioning Bill would be reduced by 10-15%
- Payback for Enduser
1. Spending on A/c of 1 Ton – Rs 50/day for 8 hours
  2. By Use of HDPE Agrishade Nets – Rs 7.5/day (15% Saving of Rs 50/day)

3. Assuming 200 days in a year = 200 days \* 7.5 = Rs 1500 per year for 8 hours
4. For 4 years this Saving would equal to Rs 6000
5. Assuming Cost of HDPE Agrishade Net = Rs 1000 for 1000 sqft terrace this cost would equal to Rs 1000 for 4 years considering life of HDPE Agrishade Nets for 4 years
6. Net Saving = Rs 5000 per Air Conditioner for 4 years for an A/C of 1 ton
7. 1 hour = Rs 6-8 per KW per hour – 1 KW per hour – 1 ton air conditioner

(Source : Civil Engineer from a Building & Construction Company, Mumbai)



Plastic processing machinery, a link between polymer and plastic product brings in versatile machinery capable of producing more than a single product on the same machinery. One such machinery is a tape extruder which can produce both agrishade nets and woven sacks from the versatile polymer, high density polyethylene. With an additional investment in knitting machines, existing high density polyethylene woven sack manufacturers can manufacture high density polyethylene agrishade nets and high density polyethylene raschel bags.

HDPE Agrishade Nets act as an umbrella with a controlled amount of sunlight to each building for lowering airconditioning bills

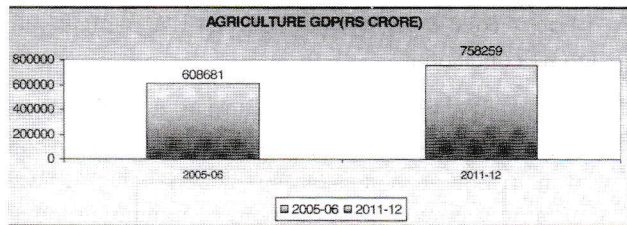
(2) Fruits such as raw mangoes get collected in plastic nets, fruits and vegetables grow under these plastic nets. A load upto 5 kg weight can be collected in HDPE Agrishade nets for this new enduse of raw mangoes. HDPE Raschel bags which are of a similar construction of HDPE Agrishade

Nets i.e. a knitted fabric is used for packaging of vegetables and fruits upto a load of 5 kgs.

**Importance of Agriculture in Indian Economy in India & Percentage of Population Dependent on Agriculture**

About 65% of India's population depends on agriculture for their livelihood and agriculture contributes about 18% of country's GDP and 11% of total export ; provide employment to 58% of the country's work force.

(Source : <http://dtf.in/archives/8055>)

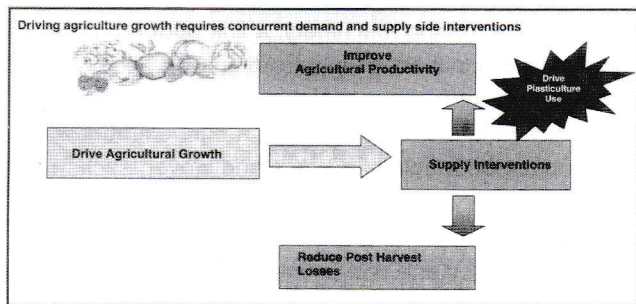


(Source : Reserve Bank of India, Planning Commission Targets)

4.1% growth implies a Rs 1,50,000 crore increase in Agriculture GDP

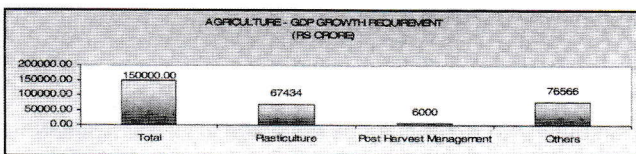
Where will this growth come from?

Driving agriculture growth requires concurrent demand and supply side interventions

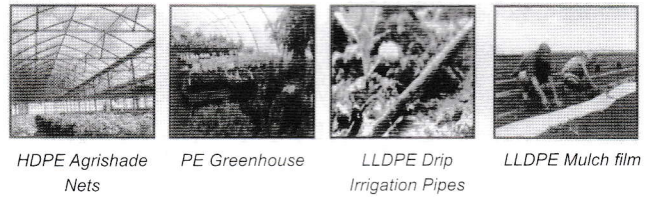


**Plastics in Agribusiness**

Rapid adoption of plastic applications alone can provide 50% of the intended targets in Agriculture...



(Source : Reserve Bank of India, Planning Commission Targets)

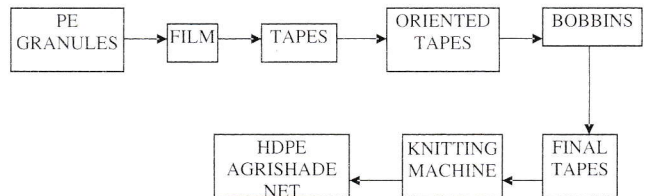


**New Products in Plasticulture**

- HDPE Eyeleted Tarpaulins as sacks for fruits & vegetables
- LDPE Reverse Printed Extrusion Coating on 2 sides of HDPE Woven Sacks

India being No.2 producer of fruits (50 million tonnes) & No.3 producer of vegetables (90 million tonnes) in the world, high potential exists for plastic products related to agriculture

**Technology**



The process used to manufacture HDPE Agrishade Nets is via the tape extrusion process or the monofilament extrusion process. The tapes are knitted into a agrishadenet via the knitting machines.

**Manufacturing Process**

In this process, the polymer melt from the extruder is passed through a flat die with a slit. The film emerging from the die is then quenched in a water tank. This film is then passed through a slitter. Here the film is slit into tapes of specific width according to the end use requirement.

The slit tapes are then oriented, by drawing through a hot air oven or by passing them over a hot plate. The stretching of the tapes is done by passing them over two sets of rollers, called goddet rollers, placed on either side of the hot air oven/hot plate, operating at different speeds.

The drawn tapes are annealed immediately after stretching operation, so as to minimize the tape shrinkage. Annealing is done by heating (mp between 100-110°C) the stretched tapes while they are passing over from second set

of goddet rollers to third goddet rollers which are maintained at a slightly lower speed (5% less). The tapes emerging from third goddet rollers are wound individually on bobbins with the help of winders.

The tapes are then knitted into fabrics of different textures on a Raschel knitting system. This is the most capable and efficient way for producing large variety of fabrics from fine laces to fishnets. They can create very high quality fabrics of different texture and do so with high rate of uniformity throughout the fabric.

### Alternative Method

In this process, the polymer is processed from the extruder and converted to film rolls. This is fed in the slitter machine and these rolls get cut into tapes. The slitting and the knitting is done together. After slitting the tapes come to the knitting machine and it gets knitted into fabric of different textures on a High Speed Raschel Knitting system. This is the most capable and efficient method for producing large variety of fabrics from fine laces to fishnets to agrishade nets of different shading norms. They can create very high quality fabrics of different types.

### HDPE Agrishade Net Project

Apportioning high percentage of Selling & Distribution Expense i.e. 10% of Sales would lead to a faster market penetration. Shelving out high commission to commission agents would also lead to a faster market penetration but should not affect the desired payback period much. More number of knitting machines with an installed capacity of 4 KT and a minimum of 24 Nos knitting machines would lead to low payback period. Proper and intense Marketing of HDPE Agrishade nets all over the country would lead to a faster market penetration.

### Distribution Pattern

1. 5 Nos commission agents from APMC's etc in 5 regions where use of HDPE agrishade nets is maximum
2. Shelving out good commissions to these commission agents by apportioning high selling & distribution expenses in the project
3. Involve persons qualified in the field of agriculture who would be able to communicate the advantages of use

of high density polyethylene agrishade nets to each commission agent who would be able to communicate to each farmer

4. Initiate this exercise with one place/city/region and replicate the same in other places/cities/regions

Development of new markets as well as existing markets with a well established distribution pattern with more and more number of commission agents broadening this distribution pattern with a higher number of persons involved in marketing would lead to a higher growth with a well defined distribution pattern making it possible for the entrepreneurs in achieving a higher net profitability.

Another way in which the products would lead to a higher net profitability improving the horizon of this distribution pattern would be through products being marketed at places where other products related to agriculture exists.

### Strategy for achieving a higher market penetration of HDPE Agrishade Nets

- Achieve higher market penetration parallelly via
  1. Commission Agents
  2. Qualified persons from field of Agriculture
  3. Dealers of plastic products related to agriculture
- Commission agents who know the local language would communicate more effectively with farmers
- Farmers would have more faith and believe local persons from their village
- Qualified persons from field of Agriculture would be able to brief the farmers on higher productivity(yield) and benefits of HDPE Agrishade Nets
- Dealers who display the plastic products related to agriculture such as pipes, mulch film to add one more product in their shops
- Promote HDPE Agrishade Nets amongst existing woven sack manufacturers
- Distribution pattern – Commission Agents, Marketing persons qualified in field of Agriculture, Dealers of plastic products related to agriculture leading in achieving a higher market penetration

□ Business leading to :

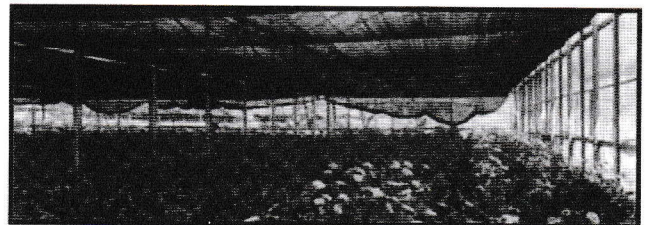
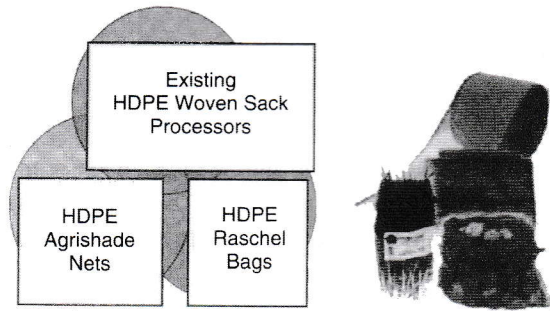


- Net profitability to the farmers
- Net profitability to the entrepreneurs

- Tieups between the two bringing in more business leading to an economic growth of our country
- One farmer, a leader uses these plastic products, followers too would use these products
- Initiate the business with one farmer, one village would result in achieving a higher market penetration

### Conclusion

Plastic processing machinery is versatile machinery capable of producing more than a single product on the same unit. One such machinery is a tape extruder which can produce both agrishade nets and woven sacks from the versatile polymer, high density polyethylene. With an additional investment in knitting machines, existing high density polyethylene woven sack manufacturers can manufacture high density polyethylene agrishade nets and



high density polyethylene raschel bags.

High Density Polyethylene Agrishade Nets by laying on terraces would lower airconditioning bills and also lower the heat in summer for both urban & rural population.

## Opportunities abound in medical market

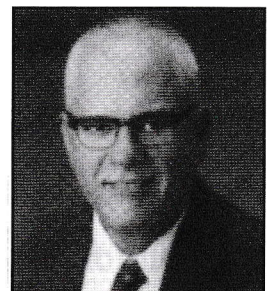
With sales growth in the double digits and a strong pipeline of projects in reserve, medical companies have their eyes on acquisitions, opening new plants, adding services and developing resins to keep their businesses running at full throttle.

“We have cash, so we are beefing up on mergers and acquisitions and looking for good ways, and for efficient ways, to make us stronger,” said Larry Johnson, health-care marketing director at PolyOne Corp. in Avon Lake, Ohio, in an interview at the Medical Design & Manufacturing East show in New York June 7-9.

“We are looking at companies that are complementary to what we have right now,” said Johnson, who manages the wide range of materials the company develops and supplies to the medical industry. “We want companies

that move us up the technology ladder, and companies that will get us someplace where we are not right now.”

Similarly, customer MedPlast Inc., a contract medical molder, said its target is to make an acquisition in the next 12 months, possibly adding its first plant outside of the U.S.



Larry Johnson

“We are back to looking for acquisitions,” said Mike Farrell, executive vice president of sales and marketing of the company that was created through acquisitions three years ago. “We are looking for areas where we can expand in support of our customers, either domestically or offshore.”

## “High Density Polyethylene Blow Moulded Kettle for a New Enduse – Edible Oil for Rural Population”

– Ms Poorvi C. Desai, Sr. Manager, Business Development - Polymers, Reliance Industries Limited

Plastic, which is manufactured from polymer resins, gives rise to innumerable products using various technologies, including blow moulding. Blow Moulding has been one of the most sought out projects by entrepreneurs who intend to start a business with low investments in the plastic industry. A movement in the blow moulding industry from bottles to 2000 litre water tanks has made this industry move at a faster pace. Creation of new plastic blow moulded plastic products has been possible due to the creativity of entrepreneurs, technical persons, mould designers and machinery suppliers in the country.

Blow moulding is used for manufacturing a wide range of bottles from drinking water bottles, pharmaceutical bottles for eye drops, nasal drops, ayurvedic medicines, cosmetic bottles for lotions, shampoo bottles, hair oil bottles, detergent bottles to floor cleaner bottles. Plastic bottles and containers used for storing liquids such as water, diesel, chemicals, edible oil etc (medium capacity containers) have been some of the most accepted storage products due to their high impact strength, light weight, aesthetics and cost-effectiveness. Plastic, with its versatility, allows for multiple designs, shapes, colours, production capacities, has been a delight to the blow moulding industry.

### 10 Litre, 15 Litre & 20 Litre High Density Polyethylene Blow Moulded Kettle for Edible Oil sold by Retailers for Rural Population

#### Edible Oil in India

In India, trade estimate of edible oil availability from Domestic Oilseeds in 2008-09(Nov-Oct) was 77.7 lakh tonnes. Edible Oil import in 2008-09(Nov-Oct) was 81.83 lakh tonnes

India is the 4th Largest Edible Oil Economy. 50% of the total edible oil in India is sold loose.

The government has passed the Eligible Oil Packaging (Regulation) Order, which makes its compulsory for edible oils to be sold in packed form, with effect from December 15, 1998.

#### Market Potential

##### Edible Oil Demand Projection

	2004	2010	2015
Total Demand (Mln. Tonnes)	10.9	15.6	21.3
Total Area under Oilseeds (Mln. Hectares)	23.4	28	32
Yield (Tonnes/hectare)	1.07	1.2	1.4
Production of Oilseeds (Mln. tonnes)	25.1	33.6	44.8
Domestic supply of edible oils (Mln. tonnes)	7	10.1	13.4
Total edible oil imports - (Mln. tonnes)	4.3	5.9	8.3
Imports as share of demand	39.40%	38.10%	39.50%

Source : Rabo Bank

#### Oilseeds Sector in India: Size

- India is one of the world's largest edible oil economies with 15,000 oil mills, 689 solvent extraction units, 251 Vanaspati plants and over 1,000 refineries employing more than one million people. The total market size is at Rs. 600,000 Mln. and import export trade is worth Rs. 130,000 Mln.
- India is also a leading producer of oilseeds, contributing 8-10% of world oilseed production. India is estimated to account for around 6% of the world's production of edible oils. Though it has the largest cultivated area under oilseeds in the world crop yields tantamount to only 50-60% of the world's average.
- India is the fifth largest producer of oilseeds in the world, behind US, China, Brazil, and Argentina.
- Three oilseeds - Groundnut, Soybean and Rapeseed/ Mustard - together account for over 80 per cent of aggregate cultivated oilseeds output.

#### Structural Characteristics

- Broadly, edible oil/fat products can be categorised into four categories, namely vegetable refined oil, hydrogenated oil (vanaspati), bakery fats/margarine, and de-oiled cakes.
- The Indian edible oil industry can be classified into the following segments. Ghanis, small scale expellers, solvent extractors, oil refiners and vanaspati manufacturers.
- Oil mills crush oil seeds and extract oil, 70% of which is sold in the open market. The remaining 30% is refined and sold as

branded oil. After the extraction of oil, residual seeds are processed further by solvent extractors, to make solvent-extracted oil. Most of the solvent extracted oil is used to make 'vanaspathi'.

- The Indian edible oil industry is highly fragmented with a large number of small scale producers. The ghanis belong to the SSI segment and usually serve the rural markets.
- Small scale expellers, much like the ghanis, use metal screws to press or expel oil from seeds. However, they are larger than the ghanis, oil expelling capacity being in the range of 5-10 tonnes per day, compared to around 50-60 kilos a day for ghanis.
- Solvent extractors belong to the organised segment and are also the second largest after the SSI segment, in the domestic edible oil industry. They use modern technology to process low oil & high meal seeds (eg. soyabean, cottonseed) into edible oil and de-oiled cake.
- Oil refining also belongs to the organised sector and has recorded rapid growth in recent times. Refiners generally refine both expeller oils and solvent extracted oils.
- Vanaspathi is made by hydrogenation of refined oil to vegetable shortening or spread and is similar to the milk product ghee and absorbs around 10% of the total edible oil supply in India.
- Due to increased consumer preference for non traditional oils such as soyabean and sunflower oil, the organised sector has emerged as one of the fastest growing sectors in recent times clocking double digit growth. Branded products, though small portion of the total edible oils market, have been one of the main drivers of rapid growth.

## FEATURES

### Characteristics

- Oils : primarily a commodity market - price sensitive
- Effective distribution chain - through a complex network of C&F agents, wholesalers / stockists & retailers (kirana shops, supermarkets).
- Oil sold in bulk (tin, HDPE containers) to institutions; in retail packs (PET bottles, cans, jars, pouches) to small customers.
- Seasonal demand for oils & vanaspathi - September to November (peak season).
- Regulation: Under the Edible Oils Packaging (Regulation) Order, 1998, edible oils cannot be sold loose' but can be sold only in 'packed' form
- Oil consumption - North is largest market, followed by South, West & East zones

### Imports and Prices

- Oils and vanaspathi substitutes can be freely imported under OGL
- Import duties: 15 % basic + 10 % surcharge (Oil); 40% basic (Oilseeds)
- Large scale imports of oils and vanaspathi substitutes - primarily to check price rise and meet supply shortages

### Usage

- Oil and vanaspathi is used as cooking media (in households, hotels, restaurants, canteens, institutions)
- Vanaspathi used as an industrial input - for making bakery products & confectionery

### High Density Polyethylene Blow Moulded Products for Entrepreneurs

The vast plastic processing industry, includes low capacity blow moulded bottles such as pharmaceutical bottles and high capacity blow moulded products such as 220 litre HMHDPE L Ring Drums for chemicals. This has helped entrepreneurs fetch higher value additions for these low capacity bottles and higher volumes of business for the high capacity drums. Delivery of pharmaceuticals, chemicals etc, in plastic containers ensure a high degree of safety. The plastic container made out of blow moulding acts as a carrier for transportation of chemicals, diesel etc eg HDPE Carboys, HDPE Jerry cans, 220 litre HMHDPE L Ring Drums. Blow Moulded Containers offer a high impact resistance and less breakage. **Eg. Safe delivery is needed for Chemicals & Pharmaceuticals. These chemicals which may be hazardous needs to be packed in products which are chemically resistant and are safe during transportation and handling. Blow moulded high density polyethylene products thus becomes a need for packaging.**

High Density Polyethylene Blow Moulded Kettle for a New Enduse – Edible Oil for Rural Population

**High Density Polyethylene Blow Moulded Kettle for Edible Oil for Rural Population – Potential 368 KT assuming 15 litre capacity of 700 gms**

Edible oil is a basic need for cooking food. Edible oil in the rural population (70% of total population) today is sold loose (79 lac tonnes). Loose edible oil could be transported in HMHDPE 220 litre blow moulded L Ring drums and distributed in various villages. The edible oil from polyethylene blow moulded tank could be distributed in 10 litre, 15 litre, 20 litre polyethylene blow moulded kettle which could be used by retailers while supplying edible oil in bottles to rural population. A polyethylene blow moulded kettle provides easy pouring of edible oil during sale of the oil to the population in rural areas. The polyethylene blow moulded kettle has 2 lids made up of polyethylene which are tightly fitted onto the blow moulded kettle. Plastics kettle

Contd. to Page - 23

## GLIMPSES

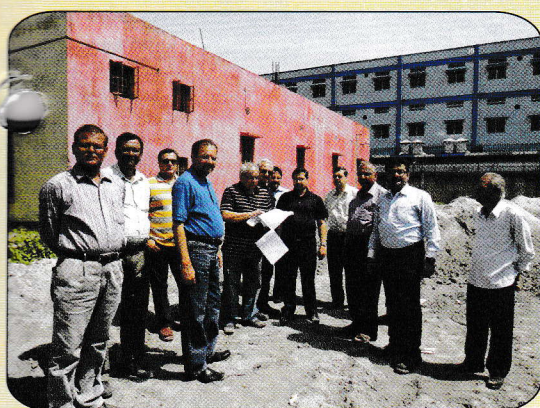
### Technical Lecture on "The Wonder Material of Masterbatch and its Importance" on 22nd February 2012 at IPF Conference Hall.



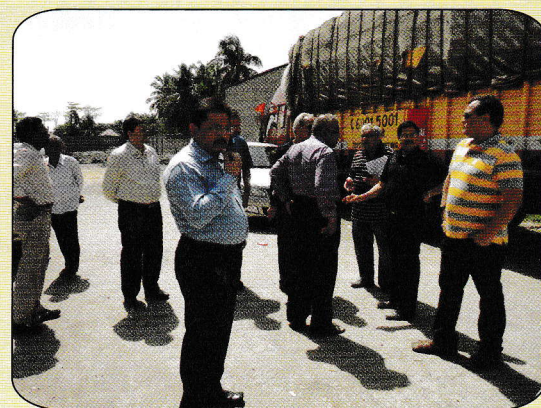
Indian Plastics Federation jointly with Indian Plastics Institute (Kolkata Chapter) organised a Technical Lecture on 22nd February 2012 in its Conference Hall. The subject matter of the Technical Lecture was 'The Wonder Material of Masterbatch and its Importance'. The speaker was Mr. V. B. Lall of SCJ Plastics Ltd., New Delhi. A number of members participated in the lecture. A snap shot of the proceedings is given.



### A Visit to IPF Knowledge Centre Site at Poly Park, Howrah



On Sunday, the 4th March 2012 IPF KC Sub Committee members visited the KC site at Sankrail to see the work that has been completed and also to understand the plan prepared by the architect. Members were impressed with the progress of work. This visit was a preparation for the site visit for all IPF members. After the site visit a IPF KC sub committee meeting was held in the office of Mr. K. K. Seksaria where discussion took place on various aspects of the Centre.





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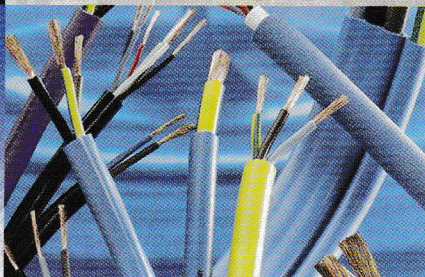


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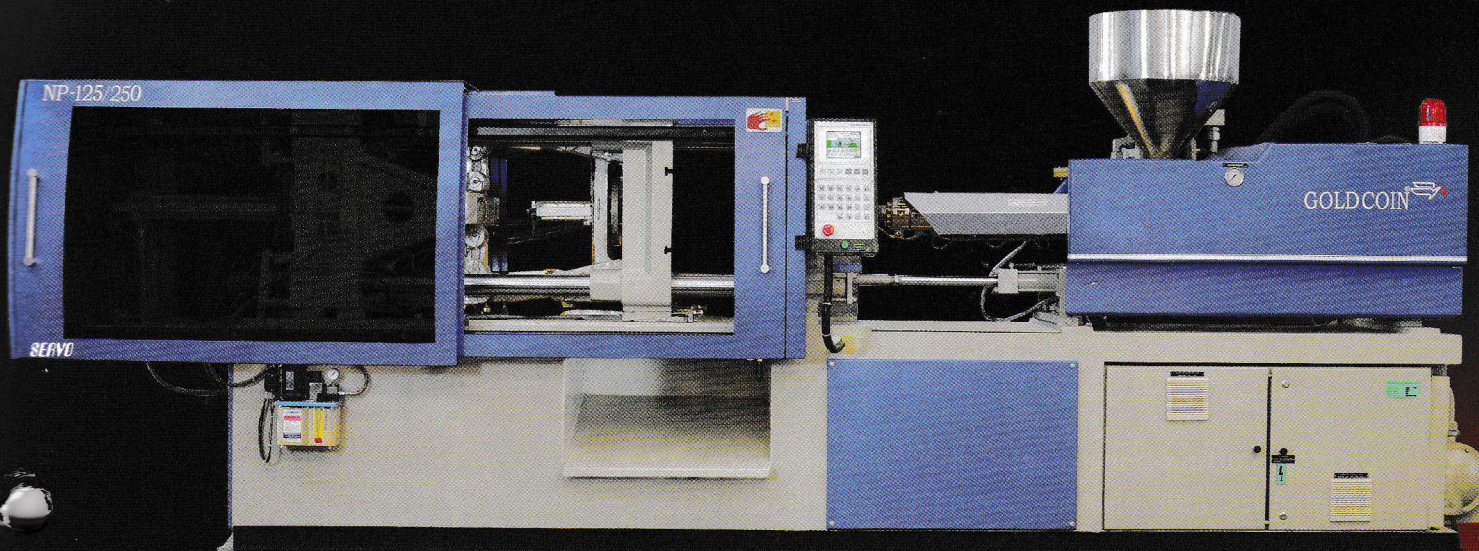
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available in various colours, capacities could be used by the retailers in rural areas. The advantages of plastics are numerous :

1. Light weight
2. Good Aesthetics
3. Better Hygiene
4. Safe handling of liquids such as edible oil with easy pouring
5. Low cost
6. Could be used for multiple uses such as edible oil, water, other liquids
7. Blow moulding process involves low investments in machinery
8. Injection moulding process for caps also involves low investments in machinery

**High Density Polyethylene Blow Moulded Kettle**

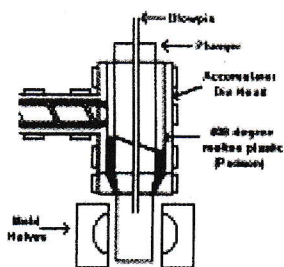
	Weight(gms)
10 litre	400
15 litre	700
20 litre	900

**Key Concer**

1. A low market penetration of packed edible oil amongst rural population(70%), the main reason being that the loose edible oil is unbranded and is available at lower cost than the branded packed edible oil. Affordability is a major constraint amongst rural population
2. Amongst the other 30% urban population, trend towards shopping malls makes the use of 1 litre pouches more popular. Another reason is that of freshness. Small packs of 1 litre gives fresh edible oil in comparison to edible oil in 15 litre HDPE Edible Oil containers
3. To look at the hotel industry which requires oil in bulk would help 15 litre HDPE Edible Oil Containers penetrate in this segment
4. Mandation (with effect from Dec 15, 1998) that edible oils should be sold in packed form is not followed
5. This mandate was followed during the dropsy case & is otherwise not followed

**Versatile Process of Blow Moulding**

**Blow molding** is a molding process in which air pressure is used to inflate soft plastic into a mold cavity. It is an important industrial process for making one-piece hollow plastic parts with thin walls, such as bottles and similar containers. Since many of these items are used for consumer beverages for mass markets, production is typically organized for very high quantities.



**Fabrication of a Tube of Molten Plastic called Parison**

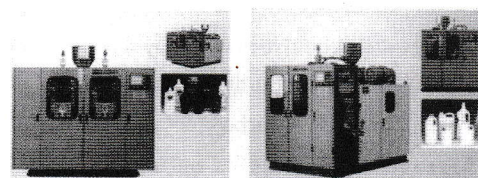
**Inflation of the tube to the desired Final shape**

Blow molding is accomplished in two steps: (1) fabrication of a starting tube of molten plastic, called a parison and (2) inflation of the tube to the desired final shape. Forming the parison is accomplished by either of two processes: extrusion or injection molding.

Versatility of blow moulding process as well as blow moulding machinery helps entrepreneurs in producing more number of products through more number of moulds on the same machinery leading to a higher product mix and thus a higher net profitability.

**Versatile Machinery of Blow Moulding**

- Technological changes, new applications, new enduses leading to the versatility of the machinery capable of producing a single product or a wide range of products
- New products, new applications helping in achieving a higher capacity utilisation to fetch a better net profitability
- Broadening knowledgebase on the enduse sector helping the mould makers in achieving a widened range of products
- Need arising out of enduses sectors such as Organised Retail, Pharma, Automotive, Edible Oil
- New Developments in Blow Moulding Machinery
  - Zebra line Blow Moulded Kettle
  - 2000 litre m/c for Water tanks
  - 4 parison m/c
  - Inline mould labelling m/c
  - 2 colour machine
- Product design of 15 lt HDPE Edible Oil containers could be modified by giving studs(elevation) on the top of the container and studs(depression) on the bottom of the previous container wherein both these containers could be locked for better stackability of the products



**Versatile Products from Blow Moulding**

**Major Applications of Blow Moulded Products**

**Consumer goods**

Packaging for vegetable ghee, over the counter products such as chyavan prash etc.

Water bottles, toys, housewares, Container for cosmetics, Fruit juices, milk products, Detergents

**Industrial**

Packaging of lubricants, brake fluid oils, greases, chemicals - pesticide/insecticide containers large containers and jerry cans for transporting and storing chemicals. Amongst the other applications are ball valves for toilet flushing.

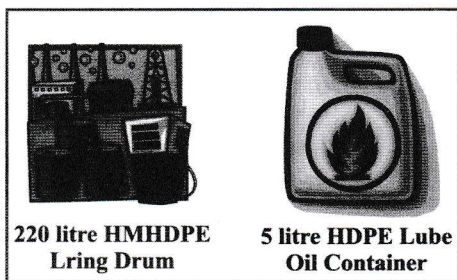
**Versatile Advantages of Blow Moulded Products**

HDPE blow moulded containers provide:

Versatile Advantages of Blow Moulded Products

- ❖ Goods stiffness
- ❖ Good impact resistance and hence less breakage
- ❖ Inert to most of the chemicals and hence better compatibility with materials to be packed.
- ❖ Greater rigidity which permits use of thinner walls thereby providing light weight low cost packaging
- ❖ Low permeability to solvents thereby widening the scope of applications
- ❖ Very good environmental stress crack resistance of ice box.

**New Developments in Blow Moulds**



**220 litre HMHDPE Lring Drum**

**5 litre HDPE Lube Oil Container**

Productivity with multiple moulds is being met with multiparison machines such as 4 parison blow moulding machines.

The constraint of stackability in HDPE Edible Oil Containers would now be overcome with the expertise of mould makers in the country.

**Conclusion**

Usage of Plastics has grown with new product designs and new mould designs with the expertise of mould makers in the country. Technical persons in the plastic industry should work towards innovation in products and enduses. Entrepreneurs can then commercialise these products/enduses. This can be done

through innovations in machinery by Machinery suppliers. Blow moulding machines initiated with single layer machines but are now available with multiple layer machines, blow moulding machines which initiated with low capacity machines for bottles are now available with high capacity blow moulding machines for 2000 litre overhead water tanks and blow moulding machines which initiated with single parison machines are now available with blow moulding machines with multiple parisons in the country. Machinery suppliers in the country, to whom an entrepreneur approaches during a startup of a project thus helps an entrepreneur identify the appropriate machinery.

Entrepreneurs could look at multiple products on a single machine

- ❖ 15 litre HDPE Edible Oil Container
- ❖ 15 litre HDPE Carboys for chemicals, diesel

**15 litre HDPE Edible Oil Containers could be used by housewives for**

- ❖ Foodgrain Storage                      ❖ Other Food Related Products
- ❖ Multipurpose, available in different shapes and colours

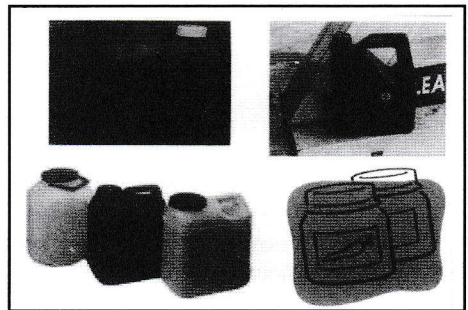
**Other New Innovations Needed in Blow Moulding in India**

Mini blow moulded carboys for milk, juices, curds, yogurts of 100 ml to 2 litre with handle for reuse of these containers would make the blow moulding industry grow at a faster pace. Wheels at the bottom of 210 litre HMHDPE LRing Drums with nut and bolt design would help these blow moulded containers to be stationery as well as mobile for handling of liquid and powdered chemicals.



**15 Litre HDPE Edible Oil Container**

**HDPE 5 Litre Lube Oil Container**



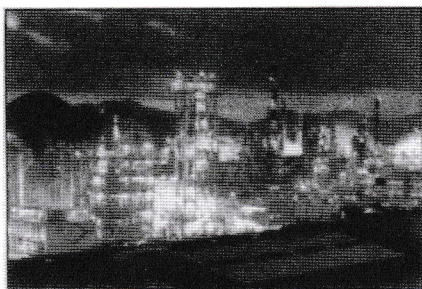


## NEWS - INDIAN PLASTICS INDUSTRY

## POLYMER INDUSTRY

## Gas Cracker Awaits Cost Clearance

The revised cost of the Assam gas cracker project being implemented by Brahmaputra Cracker and Polymer Ltd. (BCPL) is now

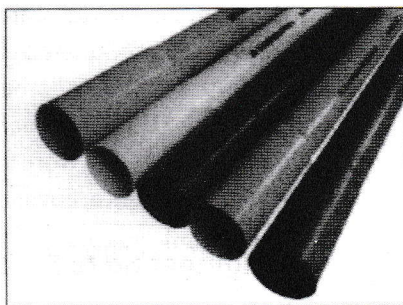


awaiting approval from the Cabinet Committee on Economic Affairs. B C Tripathi, Chairman, BCPL, said, "The project cost has been revised to Rs. 8,879 crore from Rs. 5,461 crore on account of technology/design changes, time escalation, cost increases because of change in infrastructure site conditions and construction cost."

The investment board examines investment plans costing Rs. 100 crore and above. The Assam gas cracker project was approved in 2006 at a cost of Rs. 5,460 crore to set up a 280,000-tonne per annum petrochemical plant. BCPL is a joint venture of GAIL (India) Ltd, OIL, NRL and the Assam government.

## India Eyes PVC Profit

The potential of the Indian Polyvinyl Chloride (PVC) market is promising as the polymer's has huge prospects in the subcontinent,



with growing consumption and bullish forecasts. Consumption of PVC has expanded steadily, at about 10 per cent per year in the past decade. Domestic production has increased but at a slower pace, creating room for imports, which were estimated at 660,000 tonne in the previous year. Investments in India's key end-use sectors such as agriculture and infrastructure are forecast to rise substantially in the next few years, which should boost the nation's PVC demand.

Although long-term prospects are promising, this year's progress has not been smooth. Demand contracted in the first two quarters, with high product prices and credit problems affecting buying activity. Elsewhere, the Indian economy is slowing and the government's efforts to tackle inflation have led to steady hikes in interest rates, with repercussions on the PVC market. The pipes segment will remain the largest sector, with government investment likely to spur demand. Infrastructure needs are estimated at \$ 100 billion in 2011 and the government plans to spend \$ 16 billion in agriculture, while \$ 15 billion has been allocated for rural and urban housing development.

## Finolex Industries Mulls Expansion of PVC Capacity

FINOLEX Industries Ltd. (FIL), manufacturer of PVC resins, pipes and fittings, is exploring options for doubling its PVC resin manufacturing capacities. It is currently engaged in creating a greenfield site in Gujarat for the manufacture of pipes.

According to Finolex officials, the company would first have to tie up raw materials before moving ahead with the expansion plan. Finolex currently sources the raw materials – ethylene dichloride (EDC), ethylene and vinyl chloride monomer (VCM) – from Qatar and Saudi Arabia. The company is said to be looking at sourcing the raw materials from existing suppliers, as well as alternatives like Indonesia.

According to the company, the domestic demand for PVC resin grew by 7% last year, while the demand-supply gap was met by imports of 0.7-mt. This is the opportunity FIL is targeting through expansion of its PVC resin-making capacities. The Rs. 100 crore greenfield project, near Baroda, for the manufacture of pipes coupled with debottlenecking at its two other locations --- Ratnagiri and Urse, will take Finolex's annual pipe making capacity to 200,000-tpa. The new plant, its third, is expected to start commercial production by the end of the current fiscal.

## OPaL Awards Rs. 1,980 Cr. Contracts for Polyolefin Projects

ONGC Petro Additions Ltd. (OPaL), a joint venture between Oil and Natural Gas Corporation (ONGC),

Gujarat State Petroleum Corporation (GSPC) and Gas Authority of India Ltd (GAIL) awarded two engineering, procurement and construction (EPC) contracts. Tecnimont S.p.A., operating company of Maire Tecnimont S.p.A., and its fully owned arm Tecnimont ICB have won this contract for the realization of polyolefin plants for polyethylene (PE) and polypropylene (PP) in Dahej, Gujarat.

The two contracts are worth Rs. 1,980 crore (\$440 million) and cover the implementation of a PP Plant of 340 Kty capacity and two HD/LLD Swing PE Plants of 360 Kty capacity each. The Ineos' Innovene PP process will be used for the Polypropylene plant and the Ineos.

The award followed International Competitive Bidding process where many major EPC contractors participated.

Maire Tecnimont S.p.A. is the parent company of an international engineering and construction group which operates in oil & gas, petrochemicals, power, infrastructure and civil engineering sectors. The Group, quoted on the Milan Bourse, has a workforce of about 5,200 employees.

### **GAIL Proposes Naphtha Cracker in PCPIR**

Gas Authority of India Ltd. (GAIL) has proposed to set up a naphtha cracker in the Petroleum Chemicals and Petrochemicals Investment Region (PCPIR) coming up on the Andhra seacoast. Citing the intent of GAIL and its subsequent negotiations with the Andhra Pradesh Industrial Infrastructure Corporation (APIIC) regarding the proposed plant, N Kiran Kumar Reddy, Chief Minister, Andhra Pradesh, has requested S Jaipal Reddy, Union Petroleum Minister, to issue directions to expedite the execution of this project.

### **Vivanta Moves PVC Plant to India**

New Delhi-based manufacturer and importer of chemicals, Vivanta Enterprises is setting up a plant to make suspension – grade PVC in Rajasthan. Vivanta is spending about \$ 25 million to buy, move and set up the plant, which is a former Georgia Gulf Corp plant in Oklahoma City that uses Ineos technology.

Dharam Goel, Managing Director, Vivanta, said, "The new plant is strategically located near Udaipur,

Rajasthan, and is about 160 km from Kandla port. This type of plant is not available in India. Also, the cost is almost one-fourth of that of a new plant." Goel continued, "Currently, PVC plant is being dismantled at Oklahoma. It will take about 10 months to dismantle, ship, install and start operations of the plant in India. We would like to commence production in mid 2012."

### **Oak Tree Concludes Work on Indian Compounding Plants**

Consulting firm Oak Tree Consulting (OTC) LLC has recently completed work on a pair of new compounding plants in India. Michigan-based OTC has designed and installed a plant in Pune for Alloy Polymers Inc and a specialty compounding unit in Kashipur for Flexituff International Ltd.

Subodh Sharma, President, Oak Tree Consulting, said, "The Alloy plant has initial annual capacity of about 9 million pound, which may rise to about 30 million pound of capacity in Pune. For Flexituff, OTC has also installed a plant with about 9-million pound annual capacity. Flexituff plans to install additional lines in the future."

OTC provided complete turnkey solutions at both the sites, starting with feasibility studies and moving on to site selection, commissioning, start-up and training. OTC has previously completed a polypropylene compounding plant in Altamira, Mexico, for LyondellBasell Industries. The 9-year-old firm has also done additional engineering work for Alloy and Asahi Kasei Plastics North America, Fowlerville, Michigan.

### **Bhansali Engineering to Expand ABS/SAN Capacity**

BHANSALI Engineering Polymers Ltd. (BEPL) is set to increase its combined production capacity of acrylonitrile butadiene styrene (ABS) and styrene acrylonitrile (SAN) resins to 125,000-tpa from the existing capacity of 51,000-tpa within the current fiscal, following approval of the project from the Board of Directors.

BEPL has recorded a net profit of Rs. 33.40-crore for FY11, to surpass net profit of Rs. 10.52-crore for FY10 by 217.49%. Net sales improved by 48% to Rs.

463.91-crore (Rs. 312.97-crore). The Board of Directors has recommended a dividend of 10% for FY11.

### Haldia Petro Taps Lyondell for Technology

Haldia Petrochemicals Ltd (HPL) is trying to enter into a broad technological consulting agreement with LyondellBasell to expand its product range. Faced with an unprecedented cut in margin, HPL is looking to expand its product basket. A technical agreement with LyondellBasell will give HPL access to a new product range. HPL manufactures Polymers – High-Density Polyethylene (HDPE), Linear Low-Density Polyethylene (LLDPE), Polypropylene (PP) and chemicals like benzene & butadiene. But the existing range does not include all grades. LyondellBasell has access to most grades that HPL does not possess.

HPL – under Purnendu Chatterjee, private promoter – had proposed to bid for Basell in 2005, which had failed then. Basell was thus sold off to Access Industries before merging with Lyondell in 2007. Earlier, HPL used the technology of the Netherlands-based company to produce LLDP and PP. But the relationship between the two entities had deteriorated over the last few years. A reason for HPL's poor financial health is its lack of flexibility to manufacture products that can earn for it a higher margin. The agreement with LyondellBasell is expected to cover this shortcoming.

### Mounting Losses of Haldia Petrochemicals

AFTER incurring a hefty Rs. 247-crore loss in the first quarter of the current financial year, Haldia Petrochemicals Ltd. (HPL) has planned a shutdown, starting the third week of July. The decision is part of HPL's bid to distance itself from the market for a while since polypropylene and ethylene prices have nosedived.

HPL's Managing Director Mr. Partha Bhattacharya said, "Polymer prices have crashed over the past few months, which is impacting the company's margins. Accordingly, to tide over the situation, we have taken the decision to go in for a 12-18 day shutdown, beginning third week of July. This will help us to stay away from creating an inventory in a falling market

and also to carry out annual maintenance and repair work."

HPL produces about 3.2 lakh tonnes of polypropylene annually. The ethylene capacity of Haldia Petro has increased to 6.7 lakh tonnes from 5.2 lakh tonnes after commissioning Project Supermax – the capacity expansion programme undertaken by the company. Mr. Bhattacharya said increase in interest rates in China was largely affecting polymer markets. Small and medium enterprises in China are the life-blood of chemicals and polymer demand in China as most buyers belong to this category. Polyolefin exports that would have gone to China are now being diverted to Europe. This surplus availability in the global market is pushing down prices further.

### Haldia Petro Gets Duty Relief on Naphtha

Haldia Petrochemicals Ltd. (HPL) has got a breather with the centre waiving the duty imposed on imports of naphtha, HPL's



feedstock. The price of this item has risen by 39 per cent since July 2010 and HPL losses at ₹240 crore in the first quarter is close to the entire loss of 2010-11. The Union Finance Ministry said that the import duty on naphtha used by HPL for manufacture of polymers was being reduced to nil from the current 5 per cent.

This would translate into a major benefit in a full year of HPL, which had entered a loss-making spree since the levying of this duty in 2008-09. This had led to complete elimination of the duty-differential between naphtha and polymer and had impacted HPL financial position, given that it meets 75 per cent of its requirement through imports.

HPL will save around Rs. 350-crore annually following waiver of the import duty of 5% on naphtha by the Central Government recently, according to Mr. Partha Bhattacharya. "The import duty on naphtha has been waived by the Centre by a notification issued on July 1," he informed.

Mr. Bhattacharya said that the company was importing and buying naphtha domestically from IOC amounting to Rs. 7,000-crore per annum. Now IOC would also lower its price of naphtha, he said. However in spite of the duty waiver, HPL was staring at a loss of Rs. 1,000-crore for the current fiscal, Mr. Bhattacharya said. In the first quarter, HPL's loss stood at Rs. 247-crore.

On the heels of import duty waiver on naphtha by the Centre, the West Bengal Government is planning further boost to HPL by resuming the sales tax remission scheme on sale of motor spirit. The scheme, offered to HPL as part of incentives to industrial investment in the state, was withdrawn in 2005. Together with import duty waiver, the sales tax remission is expected to boost the HPL bottomline by up to Rs. 700-crore annually.

### AP Pushes for Gail's Naphtha Cracker at PCPIR

The Andhra Pradesh Chief Minister, Mr. N. Kiran Kumar Reddy, has sought speedy implementation of the naphtha cracker plant in the Petroleum, Chemicals and Petrochemicals Investment Region (PCPIR) in the coastal region of the State.

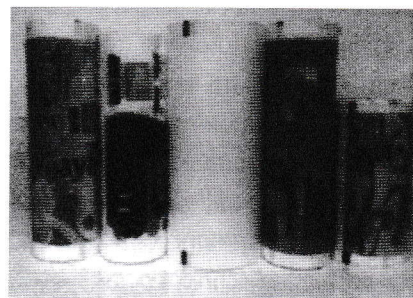
In a letter to Union Minister for Petroleum and Natural Gas, Mr. S. Jaipal Reddy, he requested the Minister to issue necessary directions to the concerned officials. The Chief Minister said, "I am happy to share with you that Gas Authority of India Ltd. (Gail) has proposed to set up a naphtha cracker plant in PCPIR region in Andhra Pradesh. The project is discussed at length by the team of senior officials of the Government of Andhra Pradesh with the representatives of Gail. Andhra Pradesh Industrial Infrastructure Corporation (APIIC) is working closely with Gail for creating the required infrastructure for the project. The proposed plant would be crucial for the development of PCPIR and would also make this PCPIR as hub of the entire East Coast of the country."

The letter further said the State Government would fully back the project implementation by providing all the required infrastructure facilities and various clearances for the project.

### NEW DEVELOPMENTS

#### Sustainable Solutions for High-Barrier Films

In keeping with the growing demand for food packaging with environmental sensitivity, Mehta Flex Pvt. Ltd. has developed a multilayer



high-barrier film. The Zero Leak™ Film is a 100 per cent recyclable food packaging flexi-film.

By down gauging the specialty polymers and processes, Mehta Flex have made the film thinner by almost 50 per cent, hence lowering consumption of polymers and plastics, transportation cost, roll changeovers/labour costs while enhancing the strength and gas barrier properties of the film. This film is proved to be a true 'zero leak', which proves to be good for liquid packaging. Due to the presence of specialty polymers, the shelf life of the food product is improved as the aroma is preserved.

This film is being widely used in the edible oil sector. Most edible oil companies prefer this film as it helps to reduce the green footprint, while cutting costs. It is also used because it is economical as it reduces wastage while packaging and is more environmental-friendly.

#### Maruti Swift Switches to Plastic Fuel Tank

Rising fuel prices have suppressed sentiments in the Indian automobile market. Local automakers are working on improving



the fuel efficiency of cars by using plastics components. The country's largest car maker – Maruti Suzuki India

Ltd. – has, for the first time, installed a plastic fuel tank in the upgraded version of Swift.

The six-layer tank cuts the weight of the car by almost 6 kg, contributing to a total weight reduction of 30 kg as compared to previous models.

### Hind Sanitaryware Buys PET-Bottle Maker Garden Polymers

Hindustan Sanitaryware and Industries Ltd has acquired Mumbai-based PET-bottle maker Garden Polymer for Rs. 89 crore in an all-cash deal.

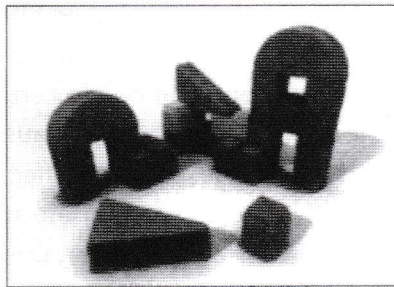
With this acquisition, the company plans to cater to the total packaging solutions business.

HSIL said it has signed a share purchase agreement to buy 60 per cent stake in Garden Polymers. Separately, HSIL's promoter group will buy the balance 40 per cent stake in Garden Polymers.

Garden polymers supplies PET bottles, caps and closures to liquor, pharmaceutical and fast moving capital goods industries, and have a plant each in Dharwar in Karnataka and Selaqui in Uttarakhand. Both the plants have a combined capacity of 7,500 tonnes per annum.

### Indian Toymakers Go Green and Clean

In order to ensure safe fun for toddlers, India toy manufacturers have embarked on a green drive by initiating a recycling process and the use



of non-toxic raw materials. Raj Kumar, President, Toy Association of India (TAI), said, "Department of Industrial Policy and Promotion (DIPP) will frame guidelines for the industry. We are trying to create awareness among small manufacturers in this unorganized sector."

The government move came after the Bombay High Court asked the Bureau of Indian Standards (BIS) to frame a directive on the amount of phthalate permissible in toys. The court directive came after a study by

Delhi-based Centre for Science and Environment, which showed that 45 per cent of toys made in India contain dangerous phthalates, regular exposure to which can cause asthma, skeletal defects, lung impairment and damage to the male reproductive system.

### Establishment of Innovation Centre / Plastic Processing Park / Tech Centre / Nanotechnology Lab

### DuPont to Set Up New Innovation Centre for Automobile Sector

International conglomerate DuPont has announced setting up of a new innovation centre in Pune



to conduct Research and Development (R&D) work for the country's growing automobile manufacturing segment. The move is aimed at expanding its reach in the Indian market with a focus primarily on the automotive segment, working with local partners. Amandeep Cheema, Business Leader, DuPont Performance Polymers – India, commented, "The DuPont India Innovation Centre will respond to the needs of our customers. This centre will be one among four new global DuPont Innovation Centres in Asia-Pacific."

The centre will work closely with automotive OEMs and component manufacturers in the country.

The \$31.5-billion US multinational's Indian operations generated sales of nearly \$700 million during 2010. Of this, a fifth was accounted for by the automotive segment. The products in this segment include automotive refurbished paints, high performance polymers such as 'Kevlar' and fatigue-resistant material going into the interiors and exteriors of cars.

DuPont already has an existing 'Knowledge Centre' at Hyderabad, which focuses on agriculture and industrial biotechnology. The Centre had, in fact, filed nine patents since November 2008, all of which pertain to agriculture.

## India's Polyplex Breaks Ground on Alabama Polyester Films Plant

Polyplex Americas Inc., a subsidiary of India's Polyplex Corp. Ltd., has broken ground for its new North American headquarters and polyester films plant in Decatur, Ala. The Decatur site offered industrial infrastructure, trained manpower, vicinity of key raw materials and relative proximity to a majority of U.S. customers.

The company, which has manufacturing in India, Thailand and Turkey, has had a U.S. presence since the mid-1990s, with a sales office in Farmers Branch, Texas.

Over the next three years, Polyplex Americas will spend \$185 million to develop the Alabama site. The first phase, to be completed by the third quarter of 2012, will include a high-speed, 28.5-foot-wide, thin-gauge film line with an annual capacity of 33,000 tons, and a resin feedstock plant with 66,000-tons annual capacity.

Phase two will result in the addition of a second PET film line within a few years. In all, the plant will employ 150. The Alabama plant represents Polyplex's largest capital investment in a single location.

## Windsor Machines Plans to Double Plant Size

Windsor Machines Ltd. plans to double the size of its manufacturing plants for injection presses and extruders because of the strong demand in India. The company is projecting demand of about 500 moulding machines and 450 extruders this year. It expects continued growth among Indian firms for the next 3 to 5 years.

### Plastics Bag Ban Updates

#### Mangalore beaches to go plastic-free from July 15

The Dakshina Kannada district administration has banned the use of plastic in Panambur and Tannirbavi beaches in Mangalore taluk with effect from July 15.

In a notification the Dakshina Kannada Deputy Commissioner, Dr N.S. Channappa Gowda, said that the use of plastic will be banned in the vicinity of Panambur and Tannirbavi beaches with effect from July 15. The usage and storage of plastic materials such as plastic covers, plastic bottles, plastic plates and plastic carry bags along these two beaches has been banned.

#### Hubli Bans Plastic Bags

The Hubli-Dharwad Municipal Corporation (HDMC) has banned plastic bags of less than 40 microns. A joint team of officials from the corporation, the departments of legal metrology and food and civil supplies, and the Karnataka State Pollution Control Board has been formed to enforce the decision.

#### TN to Ban Non Biodegradable Plastics in Tourist Places

As part of the Tamil Nadu Government's efforts to promote eco tourism, a proposal to ban non-biodegradable plastics in tourist places is under its active consideration, the State Environment Minister, Mr T.K.M. Chinnayya, said.

Facilities would be created so that the locals and tourists are able to buy biodegradable carry bags without any trouble, he said.

#### AMC Plans Awareness Campaign Against Plastic Carry Bags

As the Ahmedabad Municipal Corporation (AMC) starts crack-down on plastic carry bags below 40 micron thickness, the carry bag makers are losing demand in the short term.

Gujarat implemented the ban on plastic carry bags below 40 micron from April this year, following a Ministry of Environment and Forests (MoEF) notification on plastic waste management rules 2011 in February. The state has been slow in implementation of the MoEF norm. As a result, the state-based plastic carry bag makers were not prepared for the cap on thickness of carry bags.

The AMC, which has so far collected around 3.3 tonnes of plastic bags in various crack down initiatives, is also working on a large scale campaign to raise awareness.

"We were already working on several initiatives on solid waste management. Close to Rs 120 crore have been spent on various schemes like household-to-dump via agencies, creating a new landfill site etc. Some of these initiatives have been funded under the Jawaharlal Nehru National Urban Renewal Mission (JNNURM)," said a senior official at AMC.

AMC is now embarking on a multi-media campaign spanning public events, competitions, street plays, billboards, banners, radio to spread awareness.

### NEW DEVELOPMENTS

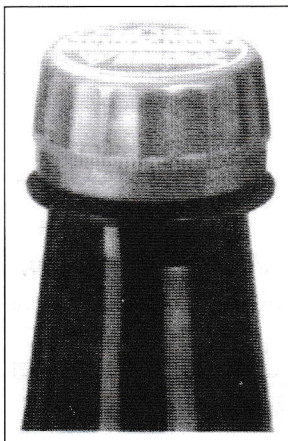
#### Beer in PET Introduced in the Indian Beer Market

Beer as an oxygen sensitive product challenges the PET bottle and the closure with respect to oxygen transmission.

Especially for the beer market, BERICAP has developed a closure in 'crown cork design', the Double Seal TM Super Shorty Crown O2S closure, which looks very similar to the traditional

beer crown cork and it was the first 20MM closure fitting to the PCO 1881 neck. To secure the high quality of beer in PET bottles during the shelf life, BERICAP equipped the closure with an oxygen scavenger absorbing the oxygen in the headspace of the beer bottle.

The world market for beer filled in PET bottles and closed by plastic screw caps is steadily growing. Starting 2003 in Germany, several countries, mainly in Eastern Europe, have meanwhile introduced beer in PET bottles.



Since long time PET Packaging for beer in India was discussed. Recently a beer brewer introduced in India the 1 ltr package PET Bottles for his beer and decided to use the BERICAP Double Seal TM Super Shorty Crown O2- a special beer closure that recurs the high quality of beer in PET even in hot climates such as it is in India.

First bottles using BERICAP Double Seal TM SuperShorty Crown O2 are already available in the Indian market.

#### Plastics Power Future Power Photovoltaic Films for Future Power

Power plastics is a revolutionary way to produce electricity from a material that is light weight, organic and flexible.

The plastic film appeared as a request from solar panel makers, especially thin film. There will be no need to install special supporting racks for the future solar panels that will feature the new film. "Flexible solar panels have all these great-sounding benefits, but then you come to the question of how you encapsulate them.

Powerplastic, a thin, flexible, organic solar panel that other business manufacturers build into their products, a unique solar technology is effective in indirect lighting situations and enables you to produce power nearly all day long, even on a vertical surface. The total energy collected from Power Plastic outperforms other solar panels, and delivers solar energy and design freedom to architects, glass manufacturers and others in the building and construction fields.

Power Plastic comes as both opaque and semi-transparent solar panels. Being thin and flexible, we are able to mold to the curves and contours of your designs. This means you are no longer limited to installing rigid, black, silicon solar panels. Power Plastic gives you the freedom to create solar powered buildings that embrace the beauty of your creations.

The Government of India has an ambitious mission of power for all by 2012. This mission would require a generation capacity of at least 200,000 MW by 2012

from the present level of 162,366 MW. Renewable Energy contributes about 10% of total power generated sources, with Tamil Nadu contributing 30% of it, mainly through wind power. India plans to invest \$19 billion in 20,000 MW of solar power generation by 2020, pretty lofty aspiration considering that India's current grid - connected solar capacity is no more than 15 MW.

Konarka has developed these thin solar films (almost like plastic sheets) which the US military is planning to use to power their tents! These sheets are so thin can be easily stitched to a normal backpack or could be pasted on your windows to efficiently use solar power.

FedEx, the US shipping service leader, 80% of its California based plant using solar electric panels. This 904 kilowatt system can produce the equivalent of power used by more than 900 homes during the daytime.

## BASF India Q1 Net Profit Rises 8%

BASF India Limited has registered significant growth in sales during the quarter ended June 30, 2011 compared to the corresponding quarter of the previous year, with an increase of 54%. On a comparable basis (post merger of the three BASF legal entities into BASF India Limited) the increase in sales for the quarter ended June 2011 is 17%.

The company's profit before tax grew to Rs.781 mn for the quarter ended June 30, 2011 as compared to Rs.736 mn for the corresponding period last year, an increase of 6%. Profit after tax at Rs.527 mn was 8% higher compared to the corresponding quarter of the previous year.

# IIP growth comes gift-wrapped in plastic

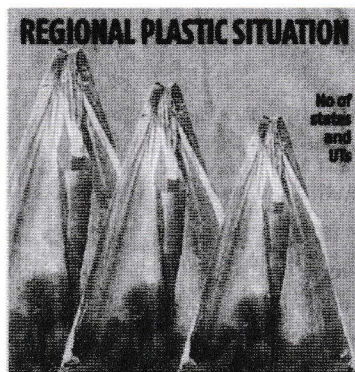
PIYALI MANDAL  
New Delhi, 21 January

It may be an environmental nuisance, but when stacked up by the ministry of statistics on the IIP list, the plastic bag becomes a driving factor for industrial growth. The growth in polythene bags emerged a contributory factor in the positive November IIP (industrial production index) numbers.

IIP numbers saw 5.9 per cent growth in November.

Strong output numbers in coal, cement, electricity and refinery products drove the IIP growth. Another factor was 13 per cent growth in consumer goods. Within consumer goods, polythene bags grew 34.7 per cent in November and contributed favourably to the overall index.

Interestingly, the contribution of polythene bags increased in November from October despite a complete ban on the use of plastic bags in as many as 10 states, includ-



Complete ban (Through notification/Act)

10

Chandigarh, Puducherry, Sikkim, Nagaland, Delhi, Haryana, Himachal Pradesh, Tripura, Rajasthan, J&K

Partial ban (Through executive order)

10

Andhra Pradesh, Arunachal Pradesh, Assam, Goa, Karnataka, Orissa, Tamil Nadu, West Bengal, Mizoram, Uttar Pradesh

Increased the thickness of plastic carry bags

7

Maharashtra: 50  
Meghalaya: 40µ  
MP: 25µ  
Goa: 40µ  
Kerala: 30µ  
Punjab: 30µ  
West Bengal: 40µ

ing Punjab, Kerala, Haryana and Goa. In October, the contribution of plastic bags was not known, but the sub-index of consumer non-durables displayed negative growth of 1.3 per cent. In September, the contribution of polythene bags grew 32 per cent.

"The growth in plastic bags could be because of the retail boom in India. Most retailers use plastic bags. So, most of the demand is consumer driven," said a senior representa-

tive of industry chamber Ficci. Industry body CII reiterated the view that most of the demand was from small retailers and shopkeepers, who did not prefer alternative materials for plastic bags.

Representatives of non-profit organisation, Toxics Link, said, "It is very difficult to wean small-time sellers away from plastic bags. The alternative jute and paper bags are expensive. Though large corporations and retail-

ers have started using paper bags or charging consumers for jute bags, it will take time for people to move away from plastic."

Commenting on the growth figure, an environment ministry official said, "There is no blanket ban on plastic bags across the country. In some states, plastic bags of a certain thickness are allowed. We have monitoring agencies in place to check whether manufacturers are

producing plastic bags below a certain thickness."

According to Rajiv Betne, senior project coordinator for Toxics Link, "Though the government has already imposed a complete ban on polythene bags in some states and a partial ban in others, monitoring and implementation is a big challenge. The sector is very unorganised. There are around 25,000-30,000 small plastic manufacturers in the country and to monitor whether they manufacture plastic bags of a certain thickness is an uphill task."

The All India Plastic Industries Association's secretary general V P Bhardwaj said, "The numbers go to show the popularity of plastic bags among consumers."

Asked about the resulting environmental problems caused by the increased use of plastic bags, he said, "Plastic bags do not cause environmental pollution per se. The problem is created by careless littering of plastic bags."



## MONTHLY CIRCULAR OF THE FEDERATION

### CIRCULAR NO. 55/2012 :

#### Sub: Membership of the Federation

The Federation has received the following application for membership of the Federation :

1. a) Name & Address of the Applicant Firm : **M/S. HINDUSTAN MONO FILM INDUSTRIES**  
58/1, J. N. Mukherjee Road  
Ghusuri  
Howrah - 711 107
- b) Class of membership : **Life Manufacturer Member**
- c) Proposed by : M/s. Basu Deo Jain
- d) Seconded by : M/s. Plastic Engineers
- e) Name of representatives : 1) Mr. Moti Lal Chhajer  
2) Mr. Ravindra Chhajer
- f) Items of manufacture : Manufacturer of Printed PP, HM & LD Bags.
- g) Phone : 033-2655-5403, (M) 94330 22720
- h) E-mail : hmf.jain@gmail.com

(Circulated in terms of Article 15 of the Articles of Association of the Federation)

### CIRCULAR NO. 56/2012 :

#### Sub: Consumer Price Index Number for Industrial Workers for Kolkata for the months of January 2011 to December 2011

M o n t h	Consumer Price Index	
	Base (1982 = 100)	Base (1960 = 100)
January, 2011	922	4370
February, 2011	911	4318
March, 2011	911	4318
April, 2011	922	4370
May, 2011	927	4394
June, 2011	937	4441
July, 2011	952	4512
August, 2011	983	4659
September, 2011	988	4683
October, 2011	978	4636
November, 2011	968	4588
December, 2011	947	4489

**IPF DELEGATION TO CHINAPLAS 2012**

Dear Members,

We are pleased to inform you that IPF is organising a tour of Chinaplas 2012 to be held at Shanghai New International Expo Centre, Shanghai, PR China from April 18 - 21, 2012. We have finalised the Chinaplas 2012 tour with SOTC. Details of the tour package are given below.

Information of the tour is being given to members well in advance to enable interested members to plan their schedules accordingly.

**05 Nights/06 Days (3 nights at Shanghai N 2nights at Beijing)-17<sup>th</sup> April to 22<sup>nd</sup> April**

17<sup>th</sup> April 2012 – Arrive shanghai .Transfer to Hotel Ramada,Wujiochang (4\*) at Shanghai or similar/halfday city tour

18<sup>th</sup> April 2012 - Visit Chinaplas'12/evening at market place

19<sup>th</sup> April 2012 - Visit Chinaplas'12 with Huangpu river Cruise in evening after fair

20<sup>th</sup> April 2012 - Half Day Visit Chinaplas'12,with early dinner and late evening flite to Beijing

21<sup>st</sup> April 2012 - Visit Great wall of China, Tainman Sq & Forbidden City

22<sup>nd</sup> April 2010 – Half day city tour/shopping .Depart for India in the evening

**Package Cost:**

**For IPF Member :-**

**PER PERSON ON TWIN SHARING - RS 60000/-**

**SINGLE SUPPLIMENT - RS 12000/- EXTRA**

**For Non IPF Member :-**

**PER PERSON ON TWIN SHARING - RS 61000/-**

**SINGLE SUPPLIMENT - RS 12000/- EXTRA**

**Inclusion:**

- |  |  |
|--|--|
| <ol style="list-style-type: none"> <li>1. Return group economy airfare on China Eastern.</li> <li>2. Flight from Shanghai to Beijing.</li> <li>3. All applicable airport Taxes &amp; GST.</li> <li>4. 03 Nights Accommodation at <b>Hotel RAMADA, Wujiochang (4*), Shanghai</b> or similar.</li> <li>5. 02 Night accommodation at <b>Hotel Wuhan (4*), Beijing</b> or similar.</li> <li>6. Daily Buffet Breakfast as provided by Hotel.</li> <li>7. Daily Lunches &amp; Dinner at Indian Restaurant, packed lunches during exhibition (<b>During Chinaplas Dinners will be served in the hotel).. one day liquor with dinner.</b>)</li> <li>8. Airport – Hotel- Airport Transfers</li> <li>9. Overseas Medical Insurance &amp; Visa charges</li> </ol> | <ol style="list-style-type: none"> <li>10. 03 Days fairground transfers during China plas tour</li> <li>11. Huangpu River Cruise.</li> <li>12. City tour of Beijing</li> <li>13. Shopping drops in Shanghai &amp; Beijing.</li> <li>14. Services of SOTC Tour Manager.</li> <li>15. SOTC Travel Kit.</li> <li>16. Maglev train enroute airport in shanghai</li> <li>17. Tianman sq and forbidden city at Beijing</li> <li>18. Dinner will be at shanghai itself- that day in restaurant</li> <li>19. 2 and half days of china plas</li> <li>20. Visit to international centre 94<sup>th</sup> floor</li> <li>21. Great wall with cable car experience</li> </ol> |
|--|--|

**Interested members may please register within 20th March 2012. At present only 35 air ways tickets are blocked till 21st March '12. First 35 bookings on first come first serve basis shall be accommodated.**

Additional numbers shall be on wait list subject to air ticket availability.

In case of any enquiry you may kindly contact the **Convenor of Chinaplas2012 tour Mr. Dipak J. Gathani (M: 98300 39614; email: dipak.gathani@rajdagroup.com)**

With best wishes

Yours faithfully

IPF Secretariat

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GOLD



Balmukund Poly Plast Pvt. Ltd.



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Linc Pen & Plastics Limited

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LOHIA GROUP STARLINGER LIMITED

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Ori-Plast Ltd.

Tenty

Group of Companies



Supreme Petrochem Ltd



Uma Plastics Ltd.

SILVER



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INDIA

For participation please contact

Chairman - Indiplas '12 Organising Committee

ipf Indian Plastics Federation

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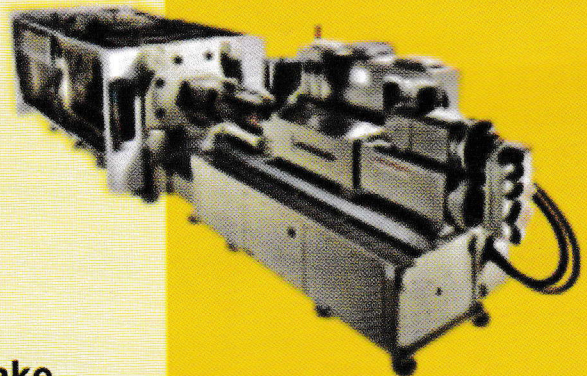
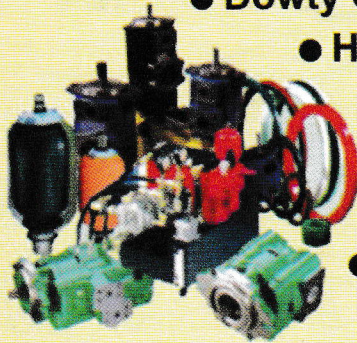


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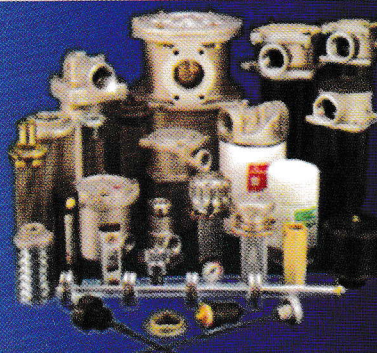
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