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EDITORIAL

PLASTICS INDIA

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

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INDIAN PLASTICS FEDERATION

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Editorial

The Need To For Exhibitions

Believe it or not, exhibitions are a very powerful, flexible and highly cost-effective business generating tool.

In established economies they are a vital part of the marketing mix, alongside direct selling, advertising, direct mail and the Internet.



In new and emerging markets they are a direct catalyst for industrial and commercial development:

- Driving industrial development and technology transfer
- Boosting regional and national industry, by providing a shop window for goods
- Stimulating foreign investment in industry and infrastructure
- Exhibitions also have a major impact on local and national economies:
- Generating direct spending on local hotels, restaurants, transport etc.
- Creating employment directly, in convention centres, hotels, restaurants etc, and indirectly, by assisting the development of small and medium enterprises
- Raising city/regional profile.

Exhibitions are one of the most effective mediums for establishing and maintaining customer relations.

In an increasingly digital age, they are the only media where buyer, seller and product physically come together - a potent force for business.

Highly Targeted

With their tightly focused profiles and carefully targeted audiences, trade exhibitions are a highly cost-effective sales and marketing platform. Exhibitions are committed to delivering business contacts that create value for each and every customer. **Flexible**

Exhibitions provide a highly flexible environment in which a wide range of sales and marketing objectives can be achieved, from generating sales leads and launching new products, to building brand image, maintaining customer relations and appointing new agents. With a wealth of exposure opportunities exhibitions provide a dynamic environment for your sales and marketing activities.

A Two-Way Communication Process

Unlike magazines and direct mail, exhibitions involve a two-way communication process. Visitors can question, challenge and debate. Exhibitors can give and seek information. Most importantly, business is conducted face to face - the most effective way to build and sustain customer relations.

A Three-Dimensional Media

An advert, direct mailing or web page may say a product is the fastest, quietest, smallest or most advanced on the market. At an exhibition, suppliers can physically demonstrate product benefits, and visitors can see, touch, taste, smell, hear, and judge, for themselves.

Speed to market

Exhibitions offer mass exposure, enabling you to reach a large proportion of the marketplace in a short space of time. They are also one of the quickest and most cost-effective means of exploring and entering new export markets

Pradip Nayyar Editor





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PRESIDENTIAL ADDRESS

PRESIDENTIA A D D R E S S



Dear Members,

In this issue I share some of my thoughts on the hazards of mobile phones and the ways and means manufacturers have started adopting for reducing these hazards.

Polymers find great use in the manufacture of mobile phones. Disposal of these hand sets has come to limelight since they are classified as hazardous material because of electromagnetic radiation and electronic composition. They contain abstances such as antimony, arsenic, beryllium, cadmium, copper, lead, nickel and zinc which belong to a class of chemicals known as persistent toxins, as they remain in the environment for long periods. Safe disposal of cell phones is necessary to protect the environment and health from a build-up of these toxins. Other environmental dangers associated with inappropriate disposal of cell phones is due to the electromagnetic radiation and electronic composition. A cell phone made of biodegradable material or made with recycled materials, helps reduce the problems of disposal due to toxic waste that piles up every year as cell phones are discarded.

Most of the mobile phone manufacturers have started to look for innovative way of manufacturing these sets that reduce the damage to environment while making the sets more energy efficient. Greater use is being made in the use of re-cycled plastics in the manufacture of these cells. Solar charging of cells is also being worked upon. These cells usually offer the following impressive eco-credentials:

- Reduced environmentally sensitive materials (RoHS compliant, free of intentionally added polyvinyl chloride (PVC), brominated flame retardants (BFRs), phthalates and beryllium)
- Energy efficient, with a charger that meets the EC Code of Conduct on Energy Efficiency of External Power Supplies, Version 4, as well as a visual alert for full charge
- Casing includes large content of post-consumer recycled plastic and major component of the device is made from recyclable materials
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With warm regards

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DESK OF HONY. SECRETARY

From the Desk of

The Hony. Secretary



Dear Members

Members will be pleased to know that after your Federation has officially received the Certificate of Registration from the Registrar Office of Newspapers for India, Ministry of Information and Broadcasting, Govt. of India, 66 West Block 8, Wing 2, R. K. Puram, New Delhi – 110 066 for concessional postage of our monthly magazine 'Plastics India'.

On 30th June 2010 a technical session was organised by IPF jointly with IPI (Kolkata Chapter). The subject matter of the presentation was "Water Management – Challenges for the 21st Century. The presentation was made by Haldia Petrochemicals Ltd.

Another technical session is scheduled to be held on 20th July 2011 jointly with IPI (Kolkata Chapter) on the subject "Extrusion - Versatile Polymer Processing Method And Its Applications". This presentation will be made by Reliance Industries Ltd.

Work is going on the Registration of the Lease Deed of our plot at Sankrail, Dist. Howrah. The draft lease deed has already been sent for approval to the WBIDC. Once we get the approval our solicitors can arrange for execution of the same before the Registration authorities.

With Best Wishes

Ramawatar Poddar Hony. Secretary

WATER HARVESTING

Dr. Subhasish Paul

Manager – Customer Services, Application Research and Development Centre, Haldia Petrochemicals Limited Email : Subhasish.Paul@hpl.co.in

Preamble:

In twenty first century, the world faces a number of challenges. One of these challenges is the availability, accessibility, use and sustainability of fresh water resources. The scarcity of fresh water can endanger the future generations as well as the natural eco-system. Having more than 16% of world population in 2.45% of world's land area with approximately 4% of world's water resources, India faces a tough challenge in this regard.

According to Ministry of Water Resources, Government of India, over 80-90% of the runoff in Indian rivers occuration four months and the distribution of precipitation or rain is also not uniform across the country. An equally yet significantly large part of land is drought and flood prone.

Hence the water resource development and management is necessary.

1. Factsheet for India:



2. Features of National Water Mission:

National Action Plan on Climate Change (NAPCC) describes the features of National Water Mission as under:

"A National Water Mission will be mounted to ensure integrated water resource management helping to conserve water, minimize wastage and ensure more equitable distribution both across and within States.....This will include **enhanced storage both above and below ground, rainwater harvesting**, coupled with equitable and efficient management structures......designed to promote water- neutral or water-positive technologies, recharging of underground water sources and adoption of **large scale irrigation programmes which rely on sprinklers, drip irrigation** and ridge and furrow irrigation."

- Stress on Ground, surface and rain water harvesting
- * Adoption on drip irrigation, sprinkler based irrigation methods at large scale
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3. Water Harvesting:

Definition: Broadly, it is defined as "collection of runoffs for its productive use"

Origin: Water harvesting is common in India, Middle East, New Mexico etc since ancient times. But, it remained as localized as need based

Significance:

- The growing population, modern lifestyle lead to more consumption of water and depleting the ground water level
- Industrialization & increased agricultural activity also add to higher water usage

Classification - Water Harvesting:



Benefits of Water Harvesting:



4. Rain Water Harvesting:

Definition: The Principle of Accumulating & Storing Rain Water for Reuse

Why Rain Water Harvesting:

- Inadequate surface water to meet the demand
- Rain water is free source & relatively clean
- Saves high quality drinking water
- Relieves the pressure on sewers
- Reduces the volume of generated waste water

Components of a Rooftop Rain WHS:

Rain Water Harvesting system (WHS) consists of four basic elements:

- A Collection (Catchment) Area
- A Conveyance System consisting of Pipes
- A Storage Facility
- A Delivery System

5. Applications of HPL grades in Water Harvesting:

A number of grades of Polyethylene (Halene – H and Halene – L) from Water Harvesting applications are available. They are mentioned below as per the applications and spec with product attributes are provided later.

1. Storage Media:

Application: Rotomolded Tank

Grade: Halene L 73005T, 73005TU, 73204T, 73204TU

2. Conveying / Conduit:

Application: Pipe, Lapeta Grade: Halene H P5300, P5200, P5200UV, Halene L 71501S

3. Film / Liner / Flooring:

Application: Pond / Canal Liners Grade :Halene L 71501S, Halene H P5200, E5201, HD T6

4. Drip Irrigation:

Application: Drip Lateral & Sprinkler Pipe Grade: Halene L 71601D, Halene H M5018L, M5818









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6. PE Storage Tank :

Grade	MFI *	Density **	Applications
Halene L 73005T	5	0.934	Rotomolded Tanks
Halene L 73005TU	5	0.934	UV Stabilized Rotomolded Tanks
Halene L 73204T	5	0.932	Rotomolded Tanks for Industrial Water Storage, Sanitation and Agriculture
Halene L 73204T	5	0.932	UV Stabilized Rotomolded Tanks

* MFI : in g/10 min and at 190°C/2.16 kg (ASTM D1238)

** Density : g/cc @ 23°C (ASTM D1505)

Product Attributes:

Good Impact - Stiffness balance

7. Film / Liner / Flooring

Grade	MFI*	Density **	Applications
Halene L 71501S	1.0	0.920	Mulch Film, liner
Halene H E5201	0.38	0.952	Extruded sheet for flooring
Halene H HD T6	0.5	0.961	Extruded sheet for flooring
Halene H P5200	0.9	0.948	Extruded sheet for flooring

MFI : in g/10 min and at 190°C / 2.16 kg, P5200 @ 5 kg (ASTM D1238)

^{*} Density : g/cc @ 23°C, P5200 @ 27°C (ASTM D1505)

8. HDPE Pipe for Conveyance

Grades	MFI *	Density**	Applications	
Halene H P5300	0.25	0.948	Pipes (PE 112) - Pressure pipes for Drinking Water, Irrigation etc.	
Halene H P5200	0.9	0.948	Pipes (PE 63) - Pressure pipes for Drinking Water, Irrigation	
Halene H P5200UV	0.9 0.9 0.94		Stabilized against UV light, Pressure pipes (PE 63) for Drinking Water, Irrigation	
Halene H B5500	0.36	0.956	DWC pipe up to 400 mm diameter	

* MFI : in g/10 min and at 190°C/ 5 kg (ASTM D1238)

** Density : g/cc @ 27°C except B5500 (@23°C) (ASTM D1505)

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Product Attributes:

- Excellent corrosion and chemical resistance
- Light in Weight Easy to handle
- Flexible and strong
- Lasts for long period
- Safe for potable water
- Halene H P5300 is the first INDIAN grade certified as PE 112 by Bodycote

9. LLDPE for Drip Irrigation:

Grade	MFI*	Density**	Applications
71601D	1.0	0.920	Drip Lateral Pipes

- * MFI : in g/10 min and at 190°C / 2.16 kg (ASTM D1238)
- ** Density : g/cc @ 23°C (ASTM D1505)

Product Attributes:

- Excellent processability
- Smooth surface finish
- Flexible & strong
- Suitable for high line speed machine



Drip Irrigation

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HDPE PIPE : MEETING THE CHALLENGES OF 21ST CENTURY

A paper by **Mr Santanu Das** Senior Manager, Business Development Haldia Petrochemicals Limited

About the author : Mr Santanu Das has done BE & MBA from Jadavpur University, Kolkata. He has got sixteen (19) years experience of Production, Engineering Project Designing, Business Development & Marketing of polymers. He has worked in SAIL, Wesman, Reliance Industries Ltd before taking up his current responsibility at HPL.

Introduction

From the earliest days of human civilisation pipes have been used for material transfer and also for casing purpose. We have seen the usage of Piping system right from ancient civilizations like Mesopotemia to our Indus valley civilization. Thus the journey in the quest for the ideal optimum piping material has been a continuous one, starting from the ancient engineer till the engineers of today, busy in building our tomorrow.

The various material of construction for pipes:

Pipes may be made from a variety of materials. In the past, materials have included wood and lead (Latin plumbum, from which we get the word plumbing).

The manufacturing of pipe uses many materials including ceramic, metal, concrete, and lately polymers. The selection of the material depends on the particular application and of course the over all economics.

Major Pipe Applications of today

- Potable water distribution
- Sewerage and Drainage System
- Agriculture
- *▶* Telecom
- Industrial and other uses

We would restrict our discussion to the first three applications here. Lets make a quick scan of our environment with respect to them.

The increasing value of water

- Water is becoming more scarce especially in China and India
- 1.1 billion people around the world lack access to safe water
- Water distribution systems are a long term investment and system Durability critical
- There are alternate energy sources, but no alternative to water

India : Water Facts and Figures

 According to the Asia Water Watch (WHO Report), out of the total Asian population of 66 crores people who are living without safe drinking water, 34 crores are from India only. Out of 200 crores of Asian population living without sanitation, 74 crores are from India.

- The technocrats of our country is faced with the challenge of providing the solution to this situation today.
- Government of India Task Force had recommended to spend Rs 20 lac crores in 11th Plan in Infrastructure, with special focus on Water supply. Sewerage and Irrigation.
- Water Supply and Sewerage Pipelines are mostly buried under the ground. Let us have a look at the required properties.

What are the required properties of a water distribution or a sewerage disposal pipeline system?

- Meeting service criteria, Mechanical properties
- Long service life
- Resistant to both carrying media as well as environment (aggressive soil)
- Better hydraulic properties
- Quick and easy installation & maintenance
- Low Life cycle cost

Pipe material of Choice today in Water Distribution & Sewerage Disposal system

- High Density Poly Ethylene (HDPE) pipe has established its position in these applications due to its unique combinations of various properties. It is being successfully used in water distribution system for more than fifty years internationally. The sewerage application initiated approx. two decades later. But within this short span of time it has gained its popularity among the various city developers internationally. Today in UK majority (85%) of the newly installed waterlines are of Polyethylene(PE). Similar pictures are obtained from Europe, America & China.
- In India, the usage of HDPE pipe has started and various Municipal Corporations, PHE departments have implemented it successfully in the following states :
- Maharashtra, Andhra Pradesh, Gujarat, Kerala, Delhi, Rajasthan, Tamilnadu, Madhya Pradesh, Karnataka, West Bengal
- We now would like to study the various benefits of HDPE pipes vis-à-vis other pipe materials with respect to our subject application in the following part.

What are the unique properties of HDPE pipes ?

Heat Fused Joints — Benefits

- HDPE pipe can be heat fused together to form a joint that is as strong or stronger than the pipe itself and is leak free. This eliminates the potential leak points every 10-20 feet as found with PVC and Ductile Iron being and spigot connections or Concrete pipes.
- The Life Cycle Cost of HDPE pipe is less than other pipe materials because the "allowable water leakage" is zero rather than typical leakage rates of 10 to 20% for other pipes.
- HDPE pipe fused joints are self restraining and costly thrust restraints or thrust blocks are not required.
- HDPE pipe's fused joints simply do not leak, eliminating infiltration and exfiltration problems experienced with alternate pipe joints.
- Also Mechanical joints e.g. Flange joint/ Quick fit joint can be used with HDPE pipes.

Flexible and Fatigue Resistant — Benefits

- HDPE pipe can be bent to a radius 25 times the nominal pipe diameter (Example: 12" HDPE can be cold formed in the field to a 25ft radius). This can eliminate many fittings required for directional changes in a piping system where fittings and thrust blocks or restraints are required with alternate materials.
- The flexibility of HDPE pressure pipe makes it well suited for dynamic soils including areas prone to earthquake.
- HDPE pressure pipe can accept repetitive pressure surges that significantly exceed the static pressure rating of the pipe.

Contd. to Page 23

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GLIMPSES <u>INTERACTIVE SESSION WITH PRESIDENT</u> <u>PLASTINDIA FOUNDATION</u>

On 7th June 2011 Shri Ashok Goel, President – Plastindia Foundation and Shri Jigish Doshi, Chairman – Proplast Committee PI-12 visited IPF office and interacted with Executive Committee members of Indian Plastics Federation. The PIF officials had come to Kolkata to inaugurate the Launch Function of PI-12 at Kolkata on the same day. The officials took this opportunity to interact with our E. C. members and apprise them of PI-



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PRESS CONFERENCE OF PLASTINDIA 2012 EXHIBITION

The Launch function of PI-12 was preceded by a Press Conference. Several members of the Press and media were present. Shri Ashok Goel, Shri R. K. Lohia, Shri K. K. Seksaria, Shri Jigish Doshi and Shri Sourabh Khemani updated the Press on different aspects of the plastics industry and activities of Plastindia Foundation and PI-12 exhibition. There was wide coverage of the launch event and the activities of PIF in both the Press and Electronic Media.







LAUNCH FUNCTION OF PLASTINDIA 2012 AT KOLKATA

PLASTINDIA 2012 Launch Function, Eastern Zone was held on 7th June 2011 at Hotel Hindustan International, Kolkata.

Shri Firhad Hakim, Hon'ble Minister of Urban Development and Municipal Affairs, Govt. of West Bengal was present at the function as Guest-of-Honour.

The welcome address was delivered by Shri Sourabh Khemani, President – IPF, who also spoke on the initiative taken by IPF in setting up a 'Knowledge Centre' on a one acre land allotted by WBIDC. He requested PIF to fully fund the setting up of a model Demo Reprocessing Centre at the premises for dispelling the myths and wrong notions carried by people at large about plastics.



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Shri Ashok Goel, President – PIF, highlighted the role of PIF and the initiatives taken in the field of Plasticulture and in the area of providing quality man-power to the industry.

Shri R. K. Lohia, Chairman – NEC PI-I2, highlighted the key factors of PI-I2 exhibition. He urged companies in the Eastern Region to participate in the exhibition in a big way.

Shri Jigish Doshi, Chairman – Proplast Committee PI-I2, gave a presentation on Proplast – processed plastics. This is an exhibition within PI-I2. The idea was to generate maximum participation from this sector.

The Hon'ble Minister was very positive about the plastics industry at large and was completely convinced about the good work being done by IPF by way of giving the technology for using plastics waste for making roads. He was convinced about the immense role played by IPF in the day-to-day life of the common man.

The promotional audio visual film for PI I2 made by the Foundation was viewed by the gathering and it was followed by another short film – A Step Forward – on Solid Waste Management – made by IPF. Both the films were well received by the audience.

The Launch function was attended by around 400 persons.

The Vote of Thanks was rendered by Shri K. K. Seksaria, Hony. Treasurer of PI-12, and the same was followed by cocktails and dinner.





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TECHNICAL LECTURE ON WATER HARVESTING AND HDPE PIPE – MEETING THE CHALLENGES OF 21st CENTURY

Indian Plastics Federation jointly with Indian Plastics Institute (Kolkata Chapter) organised a presentation on "WATER MANAGEMENT : CHALLENGES FOR THE 2IST CENTURY". The speakers were Mr. Santanu Das, Senior Manager, Business Development, HPL who spoke on use of HDPE pipes in water distribution and its other applications and advantages over other materials used for pipe manufacturing and Dr. Subhasish Paul, Manager, Customer Services, ARDC, HPL who spoke on the need for collection of run off rain water for its productive use. Collection of rain water has greatly increased in importance due to the increasing shortfall of under ground water resources and large scale irrigation programmes. Use of plastics in rain water harvesting offers a means for collection of rain water for industrial, agricultural and domestic use & re-charging of underground water at a minimal cost, since rain ater is available free of cost and polymers which are cheaper than other traditional materials, can be used for its storage and distribution.



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Construction Advantages — Benefits

- The combination of flexibility and leak free joints allow for unique and cost effective types of installation methods that all the rigid pipes can't use with bell and spigot connections. These alternate installation methods (Horizontal Directional Drilling, Sliplining, Submerged or Floating Pipe, etc.) can save considerable time and money in most potable water applications.
- Polyethylene is about one-eighth the density of steel, it does not require the use of heavy lifting equipment for installation.

Cost Effective, Long Term and Permanent — Benefits

- Polyethylene pipe installations are cost effective and have long term cost advantages due to its physical properties, leak free joints and reduced maintenance costs.
- The polyethylene pipe industry estimates a service life for HDPE pipe to conservatively be 50-100 years. This relates to savings in replacement costs for generations to come.

Corrosion and Chemical Resistant – Benefit

- HDPE pipe will not corrode, tuberculate or support biological growth.
- HDPE pipe is highly resistant to Hydrogen Sulphide gas & the low concentration of acid found in sanitary sewer.
- HDPE pipe has superb chemical resistance and is the material of choice in harsh chemical environments
- The advantages of corrosion and chemical resistance over traditional metal pipes are shared by many
 plastic pipes, but HDPE pipe uniquely combines these attributes with the aforementioned advantages of
 heat fused joints, flexibility and fatigue resistance.

Abrasion Resistant – Benefits

- HDPE pipe is five times more abrasion resistant than concrete pipes.
- The effect of corrosion is enhanced in case of an eroded pipe due to abrasion in other pipe material.

Handling — Benefits

- It is much easier to handle and install HDPE pipe vs. the heavier, rigid metallic or concrete pipe segments, allowing for huge cost advantages in the construction process.
- Polyethylene pipe is better able to structurally withstand an impact than PVC pipe, especially in cold weather installations whereas other pipes are more prone to cracks and breaks.

Hazen Williams C Factor is 150 and doesn't change over time – Better Flow property — Benefit

- HDPE pipe has a smooth ID that does not corrode or tuberculate and maintains its flow capability over time.
- The C Factor of Ductile Iron pipe is dramatically reduced over time due to corrosion and/or tuberculation.

CONCLUSION:

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As a result of all the above mentioned advantages HDPE piping systems offers the lowest whole life costing
per litre of delivered water/fluid. This encompasses cost of components, cost of installation and cost of
ownership in terms of lowest leakage rate and maintenance. Currently in India both lower diameter distribution
pipes as well as the large diameter trunk mains are being manufactured. HDPE pipes upto 1600 mm are
being made by indigenous processors. We can expect to see corrugated HDPE non pressure pipe for sewerage
application to make its entry in Indian scenario in the near future.Both the pipe demand as well as the
manufacturing base is growing at a rapid pace.

Yes.... we are at the threshold to experience the growth part of the "S" curve in this sector in India.

NATIONAL AND INTERNATIONAL PLASTICS NEWS

Kabra ExtrusionTechnik Registered 15% Increase

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The net sales of Kabra ExtrusionTechnik for the 9 months ended 31st December, 2010 stand at ₹146.7 crores. The increase in the net sales is 15% compared to the corresponding period of the financial year 2009-10.

Net Sales For Q1 - Q3 of Plastiblends Stands At ₹198 crores

The net sales of Plastiblends Indis Ltd. for the 9 months period ended 31st December, 2010 aggregate to ₹198.19 crores compared to ₹153 crores for the corresponding period of the last year. This translates into increase of 29.4%.

Time Technoplast Q3 Net up by 51%

The Net Sales for the 9 months ended 31st December, 2010 show an increase of 27% compared to the corresponding period of the last year.

- Company has completed the acquisition of Yung Hsin Contain Industry Co. Ltd. (Acquired 90%), the largest plastic industrial packaging company in Taiwan.
- The company's greenfield project at Tianjin, North China for manufacturing industrial packaging products went on stream and the trial production has commenced.

Jindal Poly Films Ltd.- Sales up to December 2010 up by 73%.



The net sales of Jindal Poly Films Ltd. for the 9 months period ending 31st December, 2010 aggregated to ₹1972 crores against ₹1155 crores for the corresponding period of the F.Y. 2009-2010.

Plastics Testing Lab To Come Up In Madurai Shortly

The widespread negative campaign and the demand for a ban on the use of plastics has placed tremendous pressure on the industry.

Ineffective plastic waste management system is responsible for the current situation. There is an urgent need to educate the common man on its safe disposal, said Mr. M. K. Alagiri, Minister for Chemicals and Fertilizers, in Madurai recently.

Inaugurating a workshop on 'Plastics Waste Management,' organised by the Advanced Tooling and Plastics Product Development Centre (ATPDC), Madurai, a unit of the Central Institute of Plastics Engineering and Technology (CIPET), he said that the scientific handling of waste generated through the use of plastics was the need of the hour, and assured the support of the Ministry for any initiative taken by the industry to facilitate its healthy growth. The industry should invest in technologies that protect the environment, he added.

He announced that a Plastics Testing Lab will be set up at Madurai soon, to meet the demand for plastics by industries in the region.

Delivering the Presidential address earlier, Mr. M Raman, Secretary, Department of Chemicals and Petrochemicals, Ministry of Chemicals and Fertilizers, said that the presence of plastic waste in public places has generated a negative reaction despite its positive utilities, in the absence of a systematic and scientific system of waste management.

It is widely acknowledged that it contributes to resource conservation, energy reduction and cost competitiveness in wide array of fields, he said.

Talking to newspersons later, on the request to establish one of the two Plastic Parks proposed in the country, in Tamil Nadu, Mr. Raman said that proposals have been received from Tamil Nadu, and Assam and other States have evinced interest in the matter.

The proposed park would be under public-private partnership model, with the Centre extending assistance by way of a grant of ₹40 crore for infrastructure development and training facilities.

NEWS ROUND UP

He added that the Plastic Lab in Madurai would become functional in another three months, with an investment of about ₹2 crore, at the SIDCO Industrial Estate, K. Pudur.

Indian Oil And LanzaTech Sign MoU For Fuel Grade Ethanol Technology

Indian Oil and LanzaTech, a clean energy t e c h n o l o g y c o m p a n y, have signed a MoU for collaboration in a technology



demonstration that will enable IndianOil to produce fuel grade ethanol. The MoU was signed in New Delhi by Sharat Meshram, Executive director (Petrochemicals), IndianOil, and Prabhakar Nair, VP (Business Development, Asia Pacific) LanzaTech, in the presence of B M Bansal, Chairman, IndianOil and Dr. Jennifer Holmgren, Chief Executive, LanzaTech. IndianOil will evaluate LanzaTech's proprietary gas fermentation technology in one of its refineries to produce fuel grade ethanol. Dr. Holmgren said the collaboration will enable both parties to accelerate techno-economic and feasibility analyses.

Approval on the Cards for India's Fifth PCPIR in Cuddalore

India's Union Government is expected to give approval to the fifth Petroleum, Chemicals and Petrochemical Investment Region (PCPIR) in Cuddalore in Tamil Nadu in the next 2-3 months. "Things are almost finalised and we are very close to notify Tamil Nadu for its first and the country's fifth PCPIR within 2-3 months," said M Raman, secretary, department of chemicals and petrochemicals, ministry of chemicals and fertilisers.

The four PCPIRs approved are at Dahej in Gujarat, Haldia in West Bengal, Paradip in Orissa and Vishakhapatnam in Andhra Pradesh.

ALOM – India's first company to offer Double wall corrugated HDPE pipes up to 1000mm.

Kolkata based Alom group of companies are venturing in to large Diameter Double wall corrugated piping system. The company has been a success with its brand names Alcorr - large diameter pipes up to 1000 mm which are playing a very crucial role in urban infrastructure development & Telecorr - Small dia HDPE pipes for telecom and electrical ducting as well as indoor ventilation systems.

The Alom group has manufacturing locations at Kolkata. The extruders and corrugators are supplied by Kabra Extrusiontechnik – India and Corma- Canada respectively. Alom is highly confident in the product and their market research has got aboard many facts that these pipes are:

- 95% lighter than concrete pipes
- 100% recyclable at the end of its life
- Reduce transportation cost up to 40% or more
- Lasts 3 times longer than other conventional
- Fewer joints , ensures better leak protection
- Environmentally safe 3 times lesser CO₂ Emissions than concrete pipes.

" Alcorr" - DWC HDPE piping systems. These find its major application in infrastructure sector. The major advantage offered by the DWC HDPE pipes are that they are economically viable for its high strength-to-weight ratio, long metallurgical life expectancy, structural integrity, hydraulic capability, favorable chemical properties and socio environmental benefits (saving enormous time for project implementations). Higher flexibility and flexural strength ensures its capabilities to sustain greater overburden as well as live load impact.

Lanxess is Optimistic About the Increase in use of High-tech Plastics by the Automobile Industry in India.

Triggered by a burgeoning middle class, the demand for passenger cars in India is on the rise and is likely to grow at 13-15% on current level of 2.4 million units per year.

To improve fuel efficiency and minimise carbon dioxide gas emissions, auto manufacturers are now looking at reducing the weight of the vehicle, which will trigger more usage of high-tech plastics in Indian cars.

The business unit semi crystalline products of lanxess manufactures high-tech plastics, namely, Durethan[®]

NEWS ROUND UP

(based on polyamide) and Pocan[®] (based on polybutylenterephthalate), which are well-suited for making auto parts as well as electrical and electronic components.

Options like replacement of the structural components of automobiles with plastics or plastic-metal hybrid components are now a possibility which were hitherto only steel or metal based. The plastic-metal hybrid front end module reduces the weight of the vehicle by 30 percent as compared to complete metal structures.

Durethan[®] is also used for making auto products like pedals and pedals brackets, outer and inner door handles, wheel covers, body reinforcements, vehicle interiors, roof modules, under the hood components like intake manifolds, cylinder head cover, fuel rails, oil pans engine fan and shrouds, and radiator tanks.

With the recent development of Durethan[®] Easy Flow resins, polyamide compounds with as high as 60 percent glass fibre reinforcement are available, Durethan DP BKV 60 H₂ EF is an example. These grades mould easily and are currently used for metal replacement in various applications.

Pocan[®] is used for applications like headlamp bezels, interior and exterior mirrors and connectors. Lanxess, is setting up its compounding facilities of capacity 20,000 tonnes per year, for Durethan[®] and Pocan[®] in Gujarat as part of the new semi-crystalline products production network for the Asia Pacific markets.

Indicators Point To Incessant Growth of Industry

Latest data various from shows that global plastics and rubber industry has well recovered last year and is growing This strongly. actually was



consistent with the previous forecast by the German Engineering Federation (VDMA), which announced last month that its member firms achieved a 17% sales increase during the last financial year. As early as in May last year, VDMA has already released results of a survey, indicating that the German plastics and rubber machinery industry was set to achieve a sales growth of more than 11% for the whole year of 2010. A few months later in October and prior to the opening of K show, it further lifted the growth forecast to 15%.

The recovery of the industry and that of its customer sector started earlier and has been stronger than expected in spring, according to Ulrich Reifenhäuser, Chairman of VDMA Association, who was pleased to report on the figures.

Moreover, the European Committee of Machinery Manufacturers for the Plastics and Rubber Industries (EUROMAP) also raised the expected overall growth rate for plastics and rubber machinery in 2010 from 6% to 11-15%, due to demand for machines had risen, sharply in all EUROMAP countries in 2009.

Increased Plastics Trade

According to the Society of the Plastics industry (SPI) in the US, a continual growth was record in the US industrial trade. During the first seven months of 2010, export of the plastics industry increased by 32.4%, while import increased by 21.4%.

The positive feedbacks from exhibitors in the K show 2010 was another concrete proof of recovery. Messe Düsseldorf, organizer of the show, reported that 75% of exhibitors clamed that they had either signed sales contracts or fixed repeat order schedules with their clients, and among these exhibitors, 92% have already confirmed the repeat orders.

Chinese Plastics Industry

China has been the largest export destination for German plastics machinery. Although the annual statistics on Chinese plastics machinery production has yet to be published, the industry's gross output value during the first three quarters of 2010 amounted to about US \$ 4.58 billion, a significant rise of 72.93% compared with the previous year. In fact, such figure had already exceeded the output value of the entire 2009. It is widely believed that Asia, especially China, is the main driving force behind the surge.

Recent development of China's plastics processing industry has proved its potential. Statistics from the National Bureau of Statistics of China show that output

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of plastics products from January to November last year amounted to 51.46 million tons, a 20.9% increase compared with the previous year.

China's plastics industry maintained double-digit growth during 2009, although the rapid expansion was partly due to the growth of the related industries. For example, the automotive sector, a major area for plastics application, sold 18.06 million cars (+32.37%) in 2010, out of 18.26 million cars (+32.44%) produced.

Dow Introduces Innovative Film Resins In India

Dow Chemical International Pvt Ltd (Dow India) has launched a range of innovative film resins for use in food & specialty packaging, industrial & consumer packaging, and health & hygiene applications. This range will meet the demands of film converters for new materials offering better optics, improved toughness and faster processing opportunities. The new products include developmental DOWLEXTM NG LLDPE resins and ATTANETM NG ultra low density polyethylene (ULDPE) resins. DOWLEXTM NG LLDPE resins build on the performance credentials of DOWLEX resins by offering greater differentiation opportunities for film converters through better optics, improved down-gauging potential and better processability. ATTANETM NG ULDPE resins are designed with a molecular structure optimised to offer a combination of improved toughness, better optics and enhanced processability.

LANXESS Adds Vibrancy To Jhagadia Production Unit

LANXESS production unit is continuing the expansion of its Indian production site at Jhagadia, Gujarat. The specialty chemicals group broke ground for new compounding facilities with an initial capacity of 20,000 metric tonne per year. These facilities will start producing the high-tech plastics Durethan (polyamide) and Pocan (polybutylene terephthalate) in the beginning of 2012.

The automotive industry is the largest customer for the semi crystalline products (SCP) business unit, which produces Pocan and Durethan. The Jhagadia site has many geographical advantages for SCP. It is located between two of India's largest automotive hubs Pune and New Delhi, which are home to numerous plants operated by the business unit's customers. Jhagadia is well linked to international ports to ensure a reliable supply of feedstock to the compounding facility.

Borouge Launches Fourth Scholarship For Polymer Science And Engineering Students In China

Borouge launched its fourth scholarship in China, which provides financial supports to high performing undergraduate students of polymer science and engineering in Yangzhou University by granting 14 selected students with scholarships. Students are selected based on their academic performance each year and among them, one or two will be given an opportunity to get trained at a Borouge location, thereby obtaining hands-on experience in an innovative and dynamic environment.

Value-added Bormed Solutions For Healthcare Packaging

Borealis AG recently displayed a comprehensive range of Bormed Polyolefins dedicated for healthcare packaging at Pharmapack 2009. It claims that pharmaceutical packaging produced with Bormed is easy-to-sterilise, provides good barriers against humidity. Further, it is chemically inert and offers excellent transparency. These requirements are of particular importance within the specialised healthcare industry.

Rhodia Acquires PI Industries' Engineering Plastics Business

Rhodia announced the signing of a binding agreement to acquire the engineering plastics business of the Indian company Pl Industries Ltd. This transaction supports the group's ambition to increase its share in the Indian polyamide compound market to more than 15 per cent by 2015. Francois Hincker, President, Rhodia Engineering Plastics, said, "Rhodia and Pl Industries are fully committed to provide the highest level of customer service, product quality and social responsibility. We plan to rapidly expand this activity, with a capacity increase scheduled shortly".

The transaction includes all the assets used and held by Pl Polymer; primarily an industrial facility that employs more than 80 people; with R & D capabilities, customer base and logistics network in India. The completion of the transaction is expected to be finalised by the end of March 2011.

Source : Plastiscope

ENVIRONMENT & BIO-PLASTICS

Environment Minister Not In Favour Of Blanket Ban On Use Of Plastic

AMID a debate on environmental hazards caused by the use of plastic, environment minister Mr. Jairam Ramesh is not in favour of a blanket ban on it across the country but said it could be area specific.

"I don't think India can afford to take a position on blanket ban on plastic all over the country. I am not in favour of blanket ban on plastic all over the country," he told reporters after a discussion with industrialists on the subject organized here by FICCI.

However, he said there can be specific areas where the use of plastic could be discouraged. Mr. Ramesh said his ministry is in the process of notifying the plastic waste management rules.

"We have the objective of minimizing the environmental hazards caused by the large scale disposal of plastic waste. At the same time we don't want to kill the plastic processing industry, which is very important in terms of employment generation in our country," he said.

"The objective of the plastic waste management rules is not just to manage the environmental hazards caused by plastic disposal, but also to ensure that we don't kill the plastic industry," he said.

Haryana To Implement Strict Ban On Plastic Bags, Containers

HARYANA will strictly implement a ban on the manufacture, sale, distribution and use of virgin and recycled plastic carry bags, chief minister Bhupinder Singh Hooda said in Chandigarh recently.

A ban on littering of plastic articles such as plates, cups, tumblers, spoons, forks and straws at public places like national parks, wildlife sanctuaries, playgrounds, recreational places, tourist centres and religious places has also been imposed, according to fresh guidelines issued by the government.

"No person would manufacture, stock, distribute, recycled, sell or use carry bags made of virgin or recycled plastic. In areas having historical, religious and ecological significance, the use of all types of plastic articles such as plates, cups, tumbles, spoons, forks and straws shall also be banned," Hooda said in a statement.

"Containers made of recycled plastic can not be used for storing, carrying or in the packing of foodstuffs. However, containers made of virgin plastic would be in natural shade or white colour," he added.

Hooda said Haryana state pollution control board would be the authority for the enforcement of the provisions of these directions. Hefty fine will be imposed on violators.

Stringent Action On All Those Who Litter In Public Places

Civic Body Has Planned To Impose A Fine Ranging From₹100To₹20,000 On People,Institutions, Societies and Hospitals Involved In Spreading Waste In Public Places.

Next time if you are thinking to throw the filth in a public place you may face penalty for it. Henceforth, persons and institutions involved in disposal of solid waste or other related civic offences will be subjected to penal action by the Thane Municipal Corporation (TMC). The civic administration has prepared bye laws on the subject and is looking up to the state government to approve the same for implementation.

The decision to the effect was taken in a meeting of group leaders of all political parties in the chamber of Mayor Ashok Vaity. Earlier, the General body (GB) House of January had taken up the subject on the agenda but could not reach a decision. The GB then authorised the group leaders to take the decision at their own level. The group leaders unanimously decided to prepare bye laws on the subject. The aim is to penalize the persons and business houses as well as institutions found involved in spreading waste on public places in the city and suburbs. The leaders hoped that the step would tend to discourage the practice and eventually make the city clean of filth. The meeting decided to impose fines ranging from just ₹100 to a maximum of All for a garbage free city:

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timesthaneplus@gmail.com

Littering Rail Worker Gets Fine, Night In Jail

CR Boss spots staffer chucking cups out of train at Kasara, detains staff at Kurla until culprit owns up

Central Railway General Manager Kul Bhushan on Sunday had the entire kitchen car staff of the Hatia-Lokmanya Tilak Terminus train placed under detention in Kurla just hours after he spotted used plastic tea cups being chucked out of the train's pantry car near Kasara.

It was only after one of the kitchen staff, Azhar Khan, 36, confessed it was he who threw the dirty cups out, that the rest, seven of them,were let off, Khan spent a night in jail and was produced before a judge on Monday. He was released on paying a fine of ₹100.

Central Railway's Mumbai division alone generates 20,000 kg of trash every day and often gets blamed by environmentalists for the helps of plastic strewn around hills near Mumbai.

On Sunday around 2 pm. Bhushan was inspecting the tracks in the ghats in his special train when he saw a bunch of dirty tea cups land on the track. Since trains slow down when negotiating the ghats, Bhushan got a clear view of the cups flying out of the pantry car. The spot was not far from Kasara station. The staff was obviously chucking trash to create space for fresh supplies.

The Railways spend lakhs of rupees every year creating awareness among passengers against littering. The CR general manager was obviously a aplled that his own staff was being so callous.

The very next moment, his officers were on wireless with Senior Divisional Security Commandant P.C. Sinha at Kurla, the train's last station. Bhushan's instructions were clear – detain the train's entire pantry car staff. He knew it would be difficult to extract a confession from the culprit. The only hope was to build pressure on him by detaining his colleagues.

Railway Staffer Goes To Jail

Over 105 km away and around one-and-a-half hours later, as Hatia-Lokmanya Tilak Terminus train chugged into Kurla station, the pantry staff got a shock when they saw a Railway Protection force (RPF) party waiting for them.

Initially, all eight of them said they had no idea who had thrown the tea cups out at Kasara. However, when they were told that they all could be arrested, bits of information began tumbling out.

Soon, realising that his colleagues would eventually tell on him, Khan confessed.

He was detained through the night at the RPF's Kurla post. On Monday morning, he was produced at the Railway Court at Chhatrapati Shivaji Terminus. The judge fined him ₹100. Failure to pay the fine would have meant two days in jail. Khan paid the fine.

A senior officer, who was with Bhushan when the incident happened, said the pantry workers have been given detailed guidelines on waste disposal. "Certain stations have been designated for off-loading trash. We will soon issue fresh orders. Anybody caught chuckingstuff out of a train will be prosecuted," he said.

When contacted, Bhushan said, "It is essential that the railway system is kept clean by employees as well as commuters. Pantry personnel have been told that they can dispose of waste at designated places, and they cannot throw it out of trains. This will be a deterrent and will encourage people to ensure railway premises, tracks are kept clean."

British Report Says PE Bags Have Low Carbon Footprint

PLASTICS & RUBBER WEEKLY Posted March 2, 2011

LONDON (March 2, 1:50 p.m. ET) -- The British Environment Agency has released a report that says single-use polyethylene grocery bags have a lower carbon footprint than alternative paper or reusable bags.

The report was released this week after a Feb. 20 newspaper report claimed the government was suppressing its conclusions. The Environment Agency claimed the report was still being peer-reviewed.

As expected, the report concluded that lightweight high density PE bags have a lower impact on global warming than alternative bags unless the alternatives are reused multiple times. "Lightweight single-use carrier bags have the lowest carbon footprint per bag based primarily on resource use and production," the agency said. "Paper, heavyweight plastic and cotton bags all use more resources and energy in their production. A key issue, however, is how many times bags are reused."

In order to equal an HDPE bag used just once, the report states that :

- A paper bag would need to be reused three times;
- A low density PE "bag-for -life" would need to be reused four times;
- A non-woven polypropylene bag would need to be reused 11 times;
- A cotton bag would need to be reused 131 times.

If the HDPE bag is reused once, as a trash bag, the numbers increase: the paper bag would need to be reused seven times; the LDPE bag nine times; the PP bag 26 times and the cotton bag 327 times.

UAE On Track To Achieve 'Free Of Plastic Bags' Goal By 2013

Dr. Rashid Ahmed Bin Fahad, UAE Minister of Environment & Water, has said the UAE is on track to achieve the goal of



becoming free of plastic bags by 2013.

He was speaking at the inauguration of the 10th edition of ArabPlast and Teckno/Tube 2011 at the Dubai International Convention and Exhibition Centre.

Bin Fahad said, "The success of ArabPlast and TechnoTube 2011 exhibitions demomstrates the robustness of the exhibitions industry in the UAE. The UAE and the entire GCC region are on the forefront of countries preserving the environment when it comes to producing plastics. The UAE will be free of plastic bags in 2013. Plastics and petrochemicals companies are adhering to the environment measures we have in place as part of their corporate social responsibility towards the community".

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The First Biodegradable Polyethylene Foam

The world's first biodegradable polyethylene foam is to be launched by Nomaco Engineered Foam Solutions. Unlike competing biodegradable products, NomaGreen foam is not starch-based or bio-based, and will meet all performance requirements for packaging foam without any worry of exposing it to moisture, heat, light or mechanical stress. A third party independent laboratory was utilized to test to the foam to ensure it meets ASTM D-5511 standards for biodegradability. Results showed that after 120 days in the lab, Nomagreen achieved 49% biodegradation. The proprietary formulation allows the foam to biodegrade naturally without having to sacrifice any of the excellent performance characteristics that standard polyethylene foam provides. NomaGreen's biodegradation process only occurs when the foam is placed in a microbe-rich environment, such as a landfill. Also, with an indefinite shelf-life, NomaGreen will continue protecting your product for multiple uses.

Bio-based Polymers That Heal Cracks Being Developed

Research is being carried out for the development of biorenewable polymers capable of healing themselves as they degrade and crack is being conducted by Kessler, an Iowa State University associate professor of materials science and engineering and an associate of the U.S. Department of Energy's Ames Laboratory. The research project is supported by a five-year, \$400,000 grant from the National Science Foundation's Faculty Early Career Development Program. The technology has evolved into a system that embeds catalysts and microcapsules containing a liquid healing agent within a composite. As cracks develop in the composite, they rupture the microcapsules and release the healing agent. The healing agent contacts the catalyst and reacts by forming 3-D polymer chains that fill the cracks. That increases material lifetimes and reduces maintenance.

Kessler's research has found that a healing agent for a polymer based on tung oil works too fast. Kessler and Peter Hondred, an Iowa State graduate student in materials science and engineering, are working to slow the agent for better healing. The researchers are also working to develop encapsulating techniques that work with biorenewable polymers. And they're working to develop bio-based healing agents. Despite the challenges, Kessler thinks there is potential to develop self-healing, biorenewable materials. He said the big question is whether researchers can push the healing efficiency of biorenewable polymers close to the 90% of standard composites.

Mater-Bi New Generation Bioplastics Material

Mater-Bi is the result of 'The Living Chemistry', an innovative project developed by Novamont S.P.A.

Mater-Bi products are a new generation of bioplastics materials derived mainly from natural renewable resources. Minimizing environmental impact it maintains the same characteristics of plastics but is completely biodegradable within a composting cycle.

Mainly derived from corn, wheat and potato starch, Mater-Bi products are thermoplastic materials which are processed with the same machines traditionally used to process conventional plastics.

Earthsoul product's physical and chemical properties are similar to those of traditional plastics, but it is completely biodegradable in different environments, just like pure cellulose, as they are manufactured using Mater-Bi.

Biorenewable Multiphase Polymers

Hybrid macromolecules composed of two or more covalently connected segments have the ability to self-assemble into nanostructured materials. These fascinating materials are used in applications ranging from footwear to bitumen modification to microelectronics. The number of technologies that utilize or could benefit from multiphase polymers is expanding at a rapid rate. This growth is due to the development of simple scalable synthetic technologies, a deeper understanding of their structure-property relationships, and their effectiveness as low-level additives. As industrial uses of self-assembled polymers become more prevalent, there will be a heightened focus on alternative preparative approaches that do not rely on petroleum feedstocks. Therefore, the development of biorenewable multiphase polymers is an important research endeavor. In this article, the authors explore the synthesis, self-assembly, and properties of renewable block and graft copolymers that contain aliphatic polyesters, as well as biosourced segmented polyurethanes. These two classes of multiphase

polymers are the most promising and practical candidates for implementation in the next generation of sustainable materials.

More information on : <u>http://www.mrs.org/...</u>

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New Sims Electronic Recycling Facility in Canada

Sims Recycling Solutions, Canada is introducing its newest electronics Recycling facility, located in Mississauga, Ontario. The facility is home to the most advanced technology that Sims Recycling Solutions has to offer recycling of end-of-life electronics, also known as waste electronics and electrical equipment (WEEE) or e-waste.

The three phase project included a fully mechanised cathode ray tube (CRT) recycling process that yields commodity grades of leaded and non-leaded glass from monitors and televisions; better metals recycling technologies; and the newest plastic separation technology allowing for closed loop recycling of plastics. The net result of this multi-million dollar investment provides higher recycling rates while maintaining the strict environmental and safety standards most commonly asoociated with Sims Recycling Solutions. 'The economies of scale, security, environmental performance and associated low carbon footprint of this single process will offer our customers better value and peace of mind for their recycling requirements,' says Cindy Coutts, President, Sims Recycling Solutions Canada.

Sims Recycling Solutions' leadership in the environmentally sound recycling of end-of-life electronics provides cost effective recycling solutions that focus on industry leading recycling standards.

Over the last 5 years, Sims Recycling Solutions Canada has recycled over 85 million pounds of electronic scrap in Ontario alone and over 880 million pounds globally in 2010 to some of the highest global standards.

Coke/KAB Bin Grant Program Applications Open

Government agencies, civic organizations, schools and nonprofit groups that manage local recycling operations can apply to get a leg-up from a grant program jointly operated by Coca-Cola Recycling and Keep America Beautiful.

The Recycling Bin Grant Program seeks to bolster community recycling efforts by donating bins and expertise from KAB as part of its larger Public Space initiative. There is no limit on the amount of bins that can be requested, but the number awarded will depend on availability. Applicants will be evaluated on the potential impact of their programs, and preference will be given to those in communities with KAB chapters.

Since 2007, the program, which is part of a larger investment by The Coca-Cola Company in recycling programs, has placed more than 16,000 recycling bins in 320 communities in 48 states and the District of Columbia.

ACC Report Shows Jump In Rigid Recycling

The American Chemistry Council and Moore Recycling Associates have released their 2009 *National Report on Postconsumer Non-Bottle Rigid Plastic Recycling,* which shows a 33 percent year-over-year jump in rigid plastic recycling in the U.S.

Over 479 million pounds of post-consumer rigid plastics were collected for recycling in 2009, with approximately 51 percent of the material recycled into new products in the U.S. or Canada. Additionally, of the 479 million pounds of plastic, 194 million pounds were durable goods, such as pallets, crates, buckets and e-plastics. Most end-markets for these types of plastics consisted of composite building products, such as railroad ties, pots, crates or lumber.

The report goes on to detail the effect of the recession on the plastics export market, its future growth outlook, as well as persistent quality control and bale standard challenges. Regarding the latter, the report concludes that a major barrier to additional demand for non-bottle rigid plastics is the absence of bale specifications, although it acknowledges that both the ACC and the Association of Postconsumer Plastic Recyclers are taking steps to address the issue.

Biopackaging On The Rise

Although still a relatively new phenomenon, biopackaging is increasingly penetrating mainstream packaging, according to a new report.

Biopackaging, material made from organic substances that are compostable, will continue to grow, despite the attention surrounding recycled PET, according to *Drinks Biopackaging Report*, a new study authored by Zenith International. It argues that the material is becoming more and more accepted by consumers, retailers, and its use is being spurred on by technological innovation. Currently it's being used in everything from car parts to toothpaste tubes.

Source : Plastiscope

International Plastics Exhibitions

	1	Interplas 2011	27th – 29th September 2011	Birmingham, UK	Space Only : Euro 209 sq.mtr. Shell Scheme : Euro 249 per sq.mtr
	2	Makinet IRAQ 2011	3-6 October 2011	Erbil International Fairground-Erbil,Iraq	Space Only : US \$ 250 / per sq mtr Shell Stand : US \$ 290 / 290 per sq mtr Inside Space With Organizer's Stand Fittings:US \$ 300 / per sq mtr
	3	Plastex Ukraine 2011	25th - 28th October 2011	IEC, 15 Brovarskoy Prospekt, Kiev.	Space Only (minimum $9m^2$) @ €225 per m ² = € Equipped Space (minimum $9m^2$) @ €285 per m ² = €
	4	Plastex Cairo 2011	24th – 27th November 2011	Kielce, Poland	Bare Space : m ² x 260 USD (min 18 sq.m) Shell Scheme: m ² x 290 USD (min 9. sq.m.)
	5	Plastix Uzbekistan 2011	16th - 18th November 2011	Tashkent, Uzbekistan.	Space only: Euro 200/ Per sq mtr Equipped Space : Euro 255/ Per sq mtr Registration and Administration Fees : Euro 500
	6	Makinet Saudi Arabia 2011	28th Nov - 1 December 2011	Riyadh, Saudi Arabia	Inside Space only (Min Space 21 sq.mtr) US \$ 320/ Per sq m ² Inside Space only with Standard Package: US \$ 390/ per sq m ²
	7	Saudi Plastics & Petrochem	28th November - 1st December 2011	Riyadh International Conventions	
	8	Plastex Siberia	29th November – 2nd December 2011	Siberian Fair, Novosibirsk, Russia.	Space Only: € 180 per m ² Equipped Space: € 230 m ² Registration Fee:€ 250 per company
	9	Makinat Lebanon 2011	6-9 December 2011	Biel, Beirut, Lebanon	Space Only : US \$ 225/per sq mtr Shell Stand : US \$ 275/ per sq mtr Inside Space with Organizer's Stand Fittings : US \$ 300 / per sq mtr

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MONTHLY CIRCULAR OF THE FEDERATION

CIRCULAR NO. 47/2011 :

Sub: Membership of the Federation

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

M/S. CHANDRA LEKHA PLASTIC 1. a) Name & Address of the Applicant Firm 29/A/H/10, Chaul Patty Road Kolkata - 700 010 Manufacturer Member b) Class of membership M/s. Rajda Sales (Cal) Pvt. Ltd. c) Proposed by M/s. Stretch Plast d) Seconded by 2 Mr. Tapas Mitra e) Name of representative 5 Items of manufacture Manufacturer of Plastic Moulded Product ÷. f) **M/S. TECHNOCRATS** 2. a) Name & Address of the Applicant Firm 3 4/66, Bijoygarh Kolkata - 700 032 Manufacturer Member b) Class of membership 2 M/s. Tib Creations Pvt. Ltd. c) Proposed by Ċ. M/s. Fortune Polymers d) Seconded by Mr. Arun Roychowdhury e) Name of representative : Manufacturer of Injection Moulding of Items of manufacture f) Engineering Plastics - TPU, PTFE, PC, ABS etc. **M/S. SHIVA INTERNATIONAL** 3. a) Name & Address of the Applicant Firm ÷ 21/2, Ballygunge Place Ground Floor, Gopala Building Kolkata - 700 019 b) Class of membership **Dealer Member** M/s. Hindustan Plastics c) Proposed by • M/s. Stretch Plast d) Seconded by : Mr. Harsh Vardhan Rungta e) Name of representative Dealer of Fillers Calcium Carbonate Items dealt in : f) (Coated / Uncoated), Talcum Powder etc. M/S. RHD ENTERPRISES PVT. LTD. a) Name & Address of the Applicant Firm 2 4 15, Ganesh Chandra Avenue 6th Floor Kolkata - 700 013 **Dealer Member** b) Class of membership M/s. Rajda Sales (Cal) Pvt. Ltd. c) Proposed by M/s. Stretch Plast d) Seconded by 1) Mr. Manoj Dhandhania e) Name of representatives 2) Mr. Rishi Dhandhania Dealer of PVC Stabilizer Lubricants and Waxes Items dealt in f)

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



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56E, Hemanta Basu Sarani, 4, B. B. D. Bag (East), Stephen House 4th Floor, Suite No. 57 ABC, Kolkata - 700 001 (West Bengal), India Ph. No. +91-33-22623124 / 3125, 22429745, +91 98303 36400, Fax No. +91-33-2243309 E-mail : malson@karanpolymers.com, Website : www.karanpolymers.com



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