



Vol 4, Jan/March 2003, No. 1

ECO-ECHOES

ICPE NEWSLETTER

Quarterly Publication of Indian Centre for Plastics in the Environment

A W A R E N E S S

COMMUNICATION

5th International Plastics Exhibition & Conference

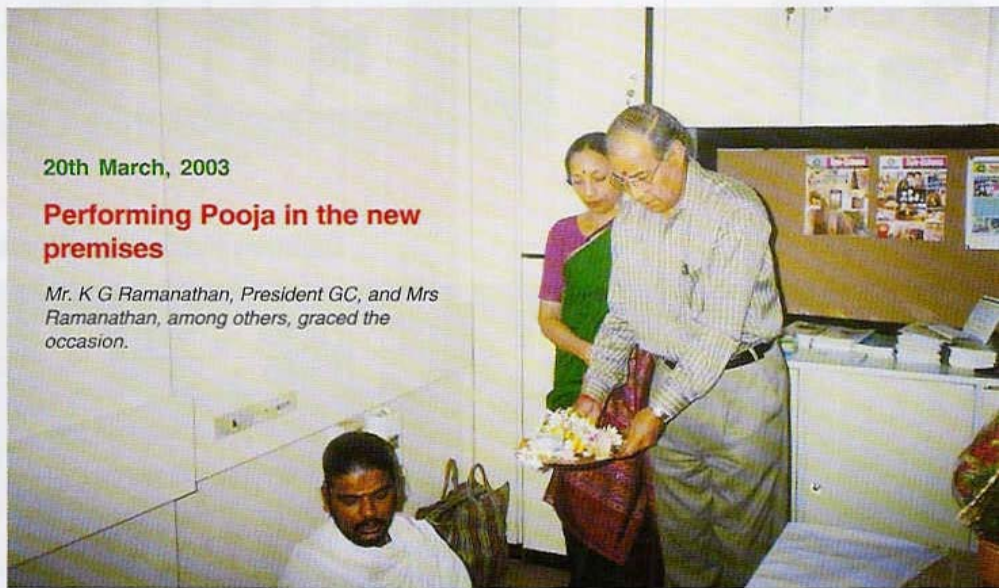


ICPE Mumabi moves to New Premises

The Indian Centre for Plastics in the Environment (ICPE) has moved its Mumbai office to New Premises with the following address:

Indian Centre for Plastics in the Environment,
205, Hari Chambers, 58/64,
Shaheed Bhagat Singh Road,
Fort, Mumbai - 400 023

Telephone – 022- 56351686/87,
022 - 22694105/06,
Fax - 022-56349705
E-mail : icpe@vsnl.net



20th March, 2003

Performing Pooja in the new premises

Mr. K G Ramanathan, President GC, and Mrs Ramanathan, among others, graced the occasion.



Eco-Echoes

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Vol. 4 Jan./Mar. 2003 No. 1

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Mr O P Ratra

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(Social upgradation of used plastic bags into functional products, PE Shows its Versatility With Railroad-Tie Application, Woven Composites Are Expanding Among Sectors, CPSC Validates Use of DINP in Vinyl Toys. Scare Stories by Activists Put To Rest By Independent Scientists).

Cover: Municipal Corporation of Delhi launched two-bin system for collection & segregation of garbage, on 20th February 2003 during Plastindia 2003 exhibition.

(Material assistance derived from Modern Plastics International, Department of Environment, Govt. of NCT Delhi, Delhi Pollution Control Committee, Mr. Vijay Merchant, is gratefully acknowledged)

Readers are invited to send their contributions in the form of short notes/news items, new product development, case studies relating to Plastics and the environment, recycling technology, waste management, etc. for Publication in the Newsletter.

All correspondence regarding ICPE Newsletter should be addressed to the Editor Eco-Echoes ICPE, Vijaya Building, 10th Floor, 17, Barakhamba Road, New Delhi-110 001, INDIA. Material published in the Newsletter may be freely reproduced, but its due acknowledgement will be appreciated.

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Founder Members
Chemicals and Petrochemicals Manufacturers' Association, New Delhi

Communication - Awareness

Exhibitions, Fairs, Melas, Meetings, Conferences, Seminars, Workshops, road shows, rallies, media Ads, both print and electronic, internet, website, VCD, DVD, Power Point presentation, including banners, hoardings, folders, brochures and product literature, are essential tools, today to communicate effective messages. May that be social, common cause or related to a particular brand product, addressed to direct consumers. Creating awareness through programmes and presentations addressed to identified audience, is a step forward to ensuring that your message is communicated.

Communicating messages and information to reach the right audience is not only an art but has become a profession. In the present context the theme for communication and awareness is waste (garbage) management with plastics as the target component. Both the Government and the industry have geared their activities towards achieving the ideal goal. Necessitated by MoEF Rules 2000 for Management and Handling of Municipal Solid Waste, the city corporations and local authorities all over India have come out with formulating communication and awareness strategies to meet 31st December 2003 deadline. In this scenario, the plastics industry has a definite role. Though initially waste management, and simultaneously as component of collection and segregation of waste using plastic bins. The practices and methodologies followed need to be communicated to the community at large.

It is in this direction ICPE joined in partnership with Municipal Corporation of Delhi to implement Bin culture and meet the requirements of MoEF rules. ICPE has similar arrangements with Municipal Corporation in Mumbai. Plastic Bins have effective role to manage waste.

Exhibitions, Fairs galore in Delhi's Pragati Maidan throughout the year. Plastindia Foundation organizes International Exhibitions and Conferences every three year. The 5th such Exhibition concluded in New Delhi during 15-20th February 2003. Largely participated and visited both by Indian and Overseas participants, it provided an objective communication platform for the plastics industry. Similar

Exhibitions are also organized in Mumbai, Kolkatta, Chennai and Bangalore.

The CII also organizes every two years Indian Engineering and Technology Fair.

Riding the environment platform, the Indian Centre for Plastics



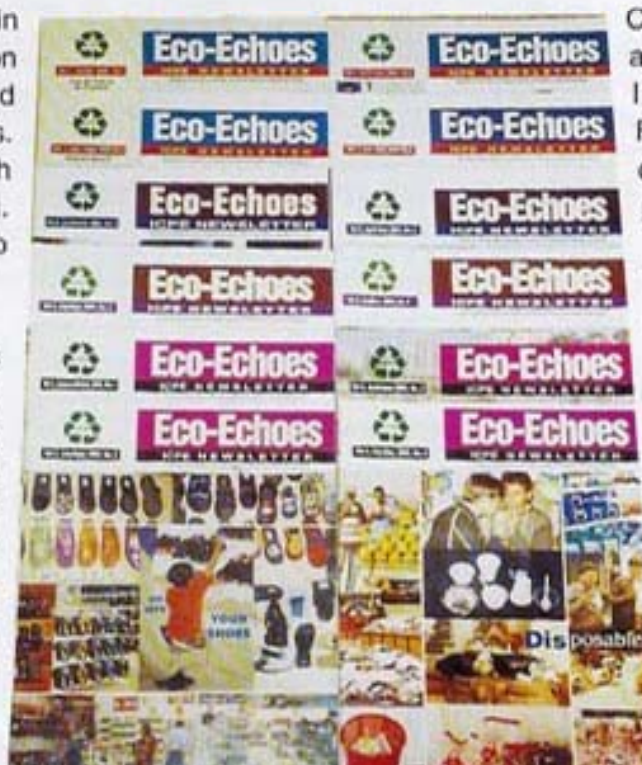
स्वच्छता एवम् स्वाभिमान

in the Environment (ICPE) published a **Monograph – Plastics for Environment and Sustainable Development**, which was released during Plastindia 2003 Exhibition. This has been yet another step forward towards effective communication of environment related issues that have engaged the plastic industry and the consumers alike.

The ICPE like any other centres of promotional and developmental activities continues to publish its quarterly Newsletter '**Echo-Echoes**', now entering fourth year. This newsletter has served as an effective and informative source of communication to one and all.

Catch them young, and it is through awareness programmes in schools which ICPE has been organising since February 2000, that students have been communicated the right message about plastics and their benefits to the society.

The Government of India, Ministry of Environment & Forests has launched Environment Information System (ENVIS) Node in Universities/Registered Societies/Private Bodies. The Ministry has identified INDIAN CENTRE FOR PLASTICS IN THE ENVIRONMENT (ICPE) for capacity enhancement programme relating to "Management of Plastics, Polymer Wastes and Biopolymers, Impact of Plastic on Eco - system". ICPE as a Node will furnish information collected by



it to ENVIS - as and when required or to such persons or bodies, namely, Central and State Governments and Organizations, scientific institutions and research scientists (users), etc. The communication and awareness are essentials for sustenance of corrective levels of relevant information maintaining that the contents are not misleading or misguiding the consumers/users at large.

Ill-conceived or ill-communicated message is more dangerous than not communicating. □

— O. P. Ratra



Plastics for Environment & Sustainable Development

Release of Monograph

The Indian Centre for Plastics in the Environment (ICPE) has undertaken a Macro Study on Plastics and Environment with a view to presenting the following aspects:

1. Issues and dimensions relating to plastics
2. Role in our environment
3. Usefulness for both economic and sustainable development

The need for such study was necessitated with a view to assessing the positive impact of plastics on the environment and economy, provide a scientific rationale and objective evaluation, and dispel the myths about plastics pervading our society.

The study is being undertaken in 3 Phases,

1. Release of Executive Summary
2. Release of 9 detailed Encyclopedic volumes
3. Approval from AICTE (all India Council of Technical Education)

The executive summary of this study has since been released and dedicated to the Nation on 15th February 2003 by Honourable Vice President of India, on occasion of Plastindia 2003.

A number of institutions and experts are associated with this study. These included, Indian Institute of Technology, Mumbai, National Chemical Laboratory, Pune, Indian Institute of Technology, New Delhi, Indian Council for Medical Research, New Delhi, Indian Institute of Packaging, Mumbai among others. □



Formal release of the Monograph by Hon'ble Vice-President of India Mr Bhairon Singh Shekhawat, in the presence of Mr S.S. Dhinsa, Hon'ble Minister of Chemicals & Fertilisers, Mr Mukesh Ambani, President National Advisory Board, Plastindia 2003, Prof. Ashok Misra, Director, IIT Mumbai, and others.

FOR PROMOTING BIN CULTURE

MCD – ICPE PARTNERSHIP



Mr Rakesh Mehta, Commissioner, Municipal Corporation addressing the function.



Mr Ram Babu Sharma, Chairman Standing Committee, MCD (R) seen launching the two-bin system in the presence of senior officials of MCD.



Mr O P Ratra, Member, Executive Committee, ICPE addressing the function.

The ICPE has been promoting bin culture for collection and segregation of garbage now for almost 4 years. ICPE has been providing bins to educational institutions and markets in Delhi, Bhopal, Raipur, Hyderabad and Mumbai. The basic objective of providing bins has been to create awareness through educational institutions about the need to segregate garbage and dispose it of appropriately.

Ministry of Environment and Forests has notified Municipal Solid Waste Management And Handling Rules 2000 under Environment (Protection) Act 1986 which make it mandatory for the

residents/occupiers of the premises to segregate garbage (biodegradable and non-biodegradable) into two separate receptacles/dustbins. The above said rules providing for the segregation of garbage are to be implemented by the Municipal Corporation of Delhi latest by 31st December 2003.

The Municipal Corporation of Delhi is under obligation to implement the provision of Municipal Solid Waste Management And Handling Rules 2000 and, therefore, MCD is making necessary arrangements with the plastic manufacturers for supply of sufficient quantities of receptacles/dustbins in the

open market. Further, the Municipal Corporation of Delhi is also making arrangements for the transport of segregated garbage in the specially designed Rickshaws having separate compartments for bio-degradable and non-biodegradable garbage, which would be subsequently handed over to the recycling industry for further processing. Biodegradable garbage would be sent to the landfill sites for the final disposal.

Under Section 353 of the Delhi Municipal Corporation Act 1957 and the provision of Waste Management Handling Rules 2000 it shall be the duty of the owner/occupier/residents of the premises

provide for separate bins for biodegradable and non-degradable garbage respectively latest by 31st December 2003.

Committee, Mr Rakesh Mehta, Municipal Commissioner, Mr Ramesh Negi, Addl. Commissioner, Mr Ajit Choudhary, Chairman, Conservancy & Sanitary



Mr Rakesh Mehta, seen explaining the features of launch.

The ICPE through its quarterly newsletter Eco-Echoes and awareness programmes have been communicating the need for bin culture and segregation of waste. The ICPE newsletter is circulated all over India. It is through this Newsletter that MCD invited ICPE to take up its partnership for collection and segregation of Municipal Solid Waste using Plastic Bins. The ICPE has taken up the responsibility to guide and assist MCD in design and manufacture of plastic bins of various sizes for placement in different locations, to meet the requirement of MoEF Rules.

Under the active guidance and advice of Municipal Commissioner Mr. Rakesh Mehta, the MCD-ICPE Partnership was initiated.

Municipal Corporation of Delhi convened a number of meetings where ICPE had invited manufacturers of plastics bins. The MCD-ICPE Partnership was launched with the introduction of two-bin system in Delhi at a formal function held at Pragati Maidan, New Delhi on 20th February 2003, in presence of the Hon'ble Mayor Mrs. Jayshree Panwar, Mr Ram Babu Sharma, Chairman, Standing

Engineering (CSE), Mr K.S. Sandhu, Director-in-Chief, (CSE), MCD.

The MCD-ICPE Partnership is on going project for selection of plastics bins for placements at public places so that the objectives of the MoEF Rules are fulfilled.

MCD has also launched a project to involve the private sector in Solid Waste Management including waste segregation. MCD intervention is believed to be the first holistic approach for comprehensive implementation of MoEF Guidelines. The project is aimed to create efficient and effective garbage collection, storage, transfer and disposal system in Delhi based on the primary principles of

- (i) sorting at source into biodegradable and recyclables,
- (ii) Adherence to MoEF Rules
- (iii) maximizing value recovery from sales of recyclables
- (iv) containerization (covered) colour coding, careful monitoring of waste generation, collection and

ICPE Displays a big draw

Continuing its efforts to encourage the responsible use of plastics, the Indian Centre for Plastics in the Environment (ICPE) put up a stall at Plastindia 2003 held in New Delhi between February 15-20, 2003. The message was "Living With Plastics: Responsibly". Besides highlighting the fact that plastics can be Recovered, Recycled and Reused in order to preserve our depleting natural resources, the ICPE pavilion also demonstrated the day-to-day uses of recycled plastics. Farms water hoses, footwear, pillow stuffing, dustbins, blankets and even a park bench were on display for astonished visitors.

One of the key highlights was an audio visual (specially created by ICPE) which revealed how plastics are a part of our daily lives and can be recycled to protect the environment. The stall had over 50,000 visitors including Eminent members from the industry, MPs, Ministers, officials from Government departments, Foreign Delegates, School students and general visitors. The pavilion served a special purpose of showcasing plastics and its benefits to the common man in a primarily industrial exhibition.

Earlier during January 2003 ICPE had also put up a stall during Chemtech Expo held at Mumbai.

— Savita Pradeep

Visitors' Comments

If the message of recycling is conveyed to the citizens of Bahrain, it will save our environment from natural catastrophe.

B J Praveen Kumar, Maskati Bros, Bahrain

The recycled products range was wonderful.

Jinesh Desai, MIT, Pune

Highly informative for any citizen. Need to spread the message to the nooks and corners of our country. Please keep it up.

Mr. Ranjan, Executive Director, ITPO, New Delhi

We will be interested to take the contents of the stall to Goa.

Extremely interesting and informative
John Dennis, British High Commission

Very much impressed about the reuses of Plastic
Khalid-e-Khair, Albaraka Plastics, Sudan

Very apt: good and an educative stall and it makes everyone responsible towards the duty of creating wealth from waste.

Yogesh Vaghani, Milton Plastics

Plastics have become an essential part of human life. Heartiest congratulations to all our friends who by research are trying to make it a substitute for many an article while keeping the environment free of pollution

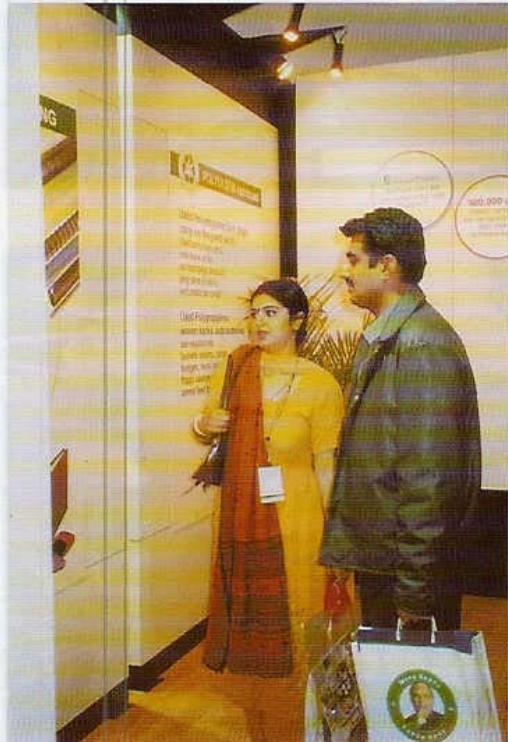
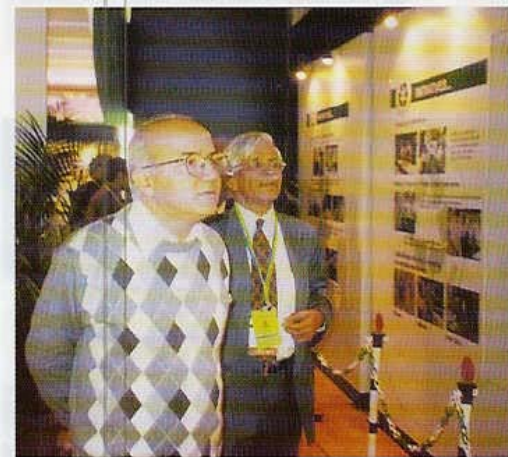
P Shiv Shankar, Former Union Cabinet Minister & Governor

The work carried on by ICPE is very impressive and useful to the society

SHAG Perera, Polypackaging Industries, Sri Lanka

Excellent display showing how careful planning and disposal of plastic waste can solve most of the environmental problems relating to plastics.

BB Patra, Greenline Polymers, Bhubaneswar

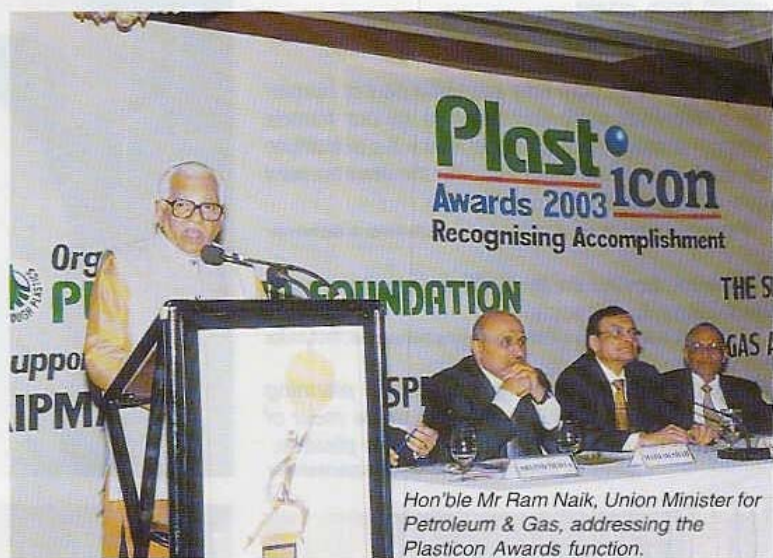


PLASTINDIA 2003

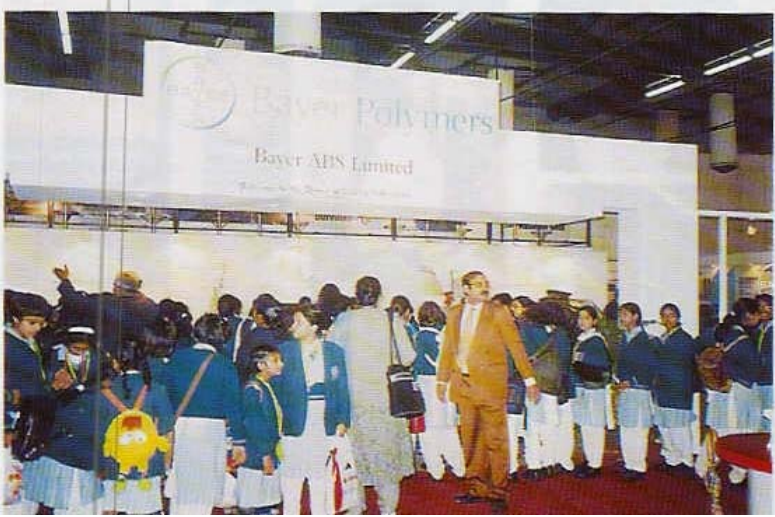
Spread over an area of 45,450 sq. mtrs., Plastindia 2003 exhibition attracted 1109 exhibitors including 204 from 30 countries and 8,25,000 visitors. The exhibition generated business to the tune of Rs. 600 crores.

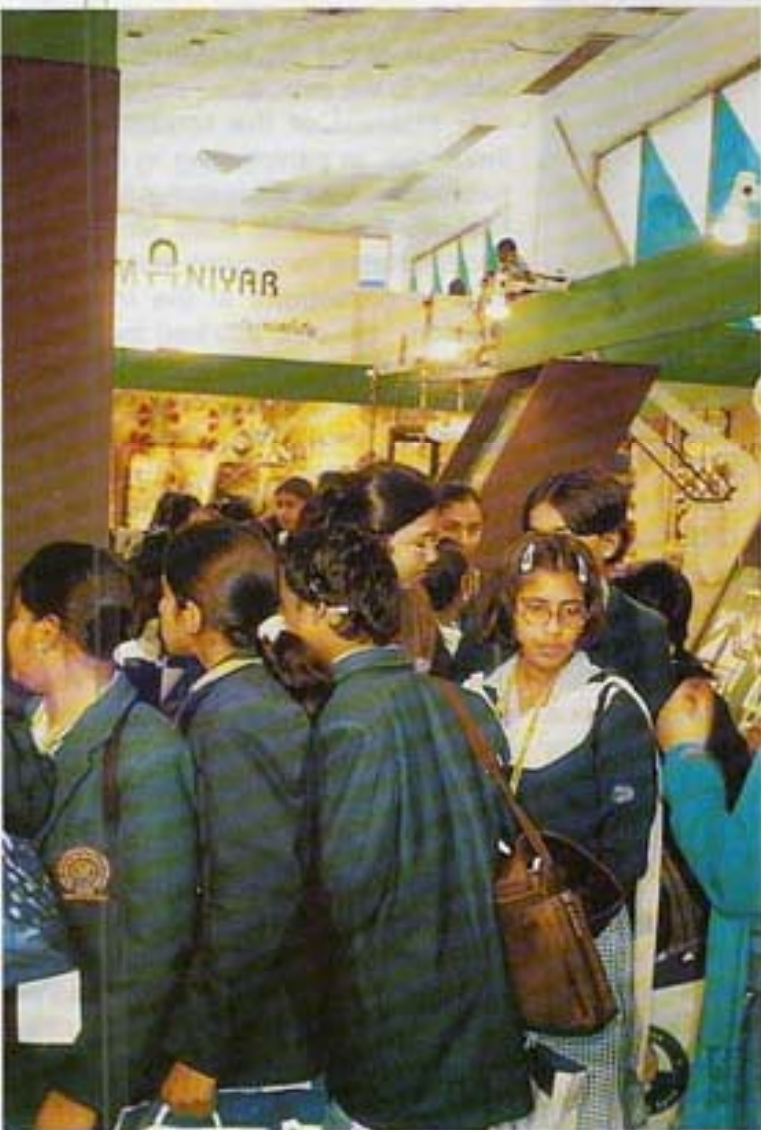


Mr Mukesh Ambani, President, National Advisory Board, Plastindia 2003 seen addressing the inaugural function.



Hon'ble Mr Ram Naik, Union Minister for Petroleum & Gas, addressing the Plasticon Awards function.





International Conferences

On the occasion of Plastindia 2003 Exhibition an International Conference was organized during February 16th–17th 2003. It was very well attended by participants from India, U.S.A, Singapore, Germany, U.K. and Austria. The conference was inaugurated by Mr. Vinod Kohli, Secretary, Department of Chemicals and Petrochemicals.

The invited experts delivered lectures on their respective areas of specialization. The organizers could draw reputed faculty members who included Mr. Robert Bauman, Mr. Roger Lee, Mr. Vipul Tuli, Mr. G. Ravishankar, Dr. S. Sivaram and Dr. Bibek Debrai, for business session and Dr. Steven F. Stanley, Dr. Scott Thomson, Mr. Rob Costella, Mr. Raj Kumar Lohia, Mr. Pradeep Tyle, Mr.

Banerji welcomed Mr. Vinay Kholi, Mr. Shyam Tibrewal, Mr. S.V. Kabra, invited guests and distinguished delegates. He also outlined the objectives and the organizational aspects of the conference.

In his inaugural address, Mr. Vinay Kholi, narrated several areas wherein plastics have preferentially substituted conventional materials and said that plastics are indispensable in our daily life. He however exhorted the Plastindia Foundation and the plastics industry to look into the issues related to plastic waste and the environment. Mr. Shyam Tibrewal presented details of the growth in plastics industry over the years and also India's present plastics consumption scenario vis-à-vis the developed countries. Mr. S.V. Kabra gave detailed account of the organizational matters related to the exhibition. He mentioned that interest of the foreign plastic industries, in participating in Plastindia exhibition, was increasing. Dr. V.P. Malhotra thanked Mr. Kohli, Mr. Tibrewal and Mr. Kabra for sparing their valuable time to participate in the inaugural session. He also thanked the invited guests and the conference delegates who overwhelmingly responded to the invitation to participate in the conference.



Mr Vinay Kohli, Secretary, Department of Chemicals & Petrochemicals, lighting the ceremonial lamp. Others seen with him are Mr Shyam Tibrewal (L), Dr V P Malhotra, Mr Sujit Banerji, and Dr Y B Vasudeo (R).

The business aspects and technological breakthroughs in the polymer industry have a lot of bearing on the economic health of plastic industry. While the new technological innovations are helpful in improving the environment and cost savings in the production, the business aspects have overriding potential of taking the products of new technology to the market and ultimately to the consumer. With this background the organizers of the conference divided the conference time equally between business and technological aspects. While on February 16, the speakers dealt with business aspects, February 17, was reserved for technical matters.

Peter Von Hoffman, Dr. C.S. Chou, Mr. Gajanan Gandhe, for technology day. In all 27 papers were selected for presentation.

To give sufficient time for presentation and for Q&A sessions several conference formalities were done away with. This also resulted in time bound completion of the conference. Amongst distinguished speakers during the inaugural session, were Mr. Shyam Tibrewal, President, Plastindia Foundation; Mr. S.V. Kabra, Chairman, National Executive Council of Plastindia ; Mr. Sujit Banerji, Chairman, Conference Committee ; and Dr. V. P. Malhotra, co-chairman, Conference Committee. Mr.

The technical contents of all the presentations were of very high standards. Without being prejudicial to any speaker only a few presentations having wider perspective have been highlighted. Complete articles of all the papers have, however, been covered in a CD-ROM. Copies of this CD have already been dispatched to all the delegates.

February 16, 2003 was exclusively reserved for presentations related to the plastic business scenario of India and the world. Mr. Robert Bauman gave detailed account of the growth of Chinese polyolefin industry and said that over the past ten years the growth rate of



Mr. Sujit Banerji, Chairman, Conference Committee, welcoming the participants.

polyethylene industry has been 10.5% and expected it to maintain the trend. He also said that Chinese plastics processing industry is exporting plastics products the world over, at extremely competitive prices, so much so that during 2001 the imported Chinese bags accounted for 26% of the domestic bag market in USA.

Mr. Roger Lee, Director Technon Orbichem gave detailed account of PET resin, its production and demand. He underlined that average global PET utilization rates are expected to slip below 80% in 2003 and shall stay at this level in 2003-2005. The basic reason for negative growth in this sector is due to high volume production, high cash flow but very little profitability.

Dr. S. Sivaram, Director, National Chemical Laboratory stressed in his talk on the importance for a long term research relationship between the industry and the R&D Laboratory. He felt that effectiveness of an industry R & D interaction depends on good understanding of the strength and weaknesses of both the organizations and the care with which the projects are selected and executed.

Dr. Steven F. Stanely, Business Director, The Dow Chemical Company, presented a paper on new generation Unipol polypropylene and the catalyst for producing the same. He said that Unipol PP co-polymers have super high impact strength even at cold temperature without the loss of stiffness (flexural modulus). The Dow Chemical maintains close relationship with its licensees to develop broad range of technologies to meet specific regional requirements.

Mr. Pradeep Tyle, President, Flex Industries Ltd., presented a paper on flexible packaging materials. He mentioned that flexible packaging materials could be mono or multi-layer depending upon the barrier and mechanical properties desired for optimum shelf life of packaged material. As per his assessment India offers largest opportunities for flexible packaging in the Asian region. The Indian flexible packaging material market is growing at a rate of 25-30% annually.

Mr. Peter Von Hoffmann, Team Leader, Copeion Werner & Pfeleiderer, presented a case of advanced twin screw extruder. He said that this equipment can be used for production of high quality compounds and mater batches ranging from commodity plastics to filled engineering plastics. The screw r.p.m. of the extruder is reported to be as high as 1200/min and hence is a high productivity machine.

Dr. Malhotra summed up the proceedings of the Conference and thanked the members of organizing committee and the sponsors. The Conference was sponsored by Reliance Industries Ltd., IPCL, Ciba, Coperion W&P, GE plastics, Supreme Petrochem, Rohn & Haas, Technon Orbichem, Basell Polyolefins, Clariants, Sidel, Cincinnati and Dow-DuPont. □

— Dr V.P. Malhotra





An International Conference on Plastics and Environment – Opportunities and Challenges was organized by Shriram Institute of Industrial Research, during 24th – 25th February 2003 at New Delhi.

It was inaugurated by Lt. Governor of Delhi, Mr. Vijai Kapoor and Guest of Honour was Mr. Proshanto Banerjee, CMD – GAIL India Limited. The Welcome Address was delivered by Prof. M.G.K. Menon, an eminent scientist and Chairman – Governing Board, SRI and Keynote address was delivered by Prof. A.K. Misra, Director, IIT, Mumbai.

More than 150 delegates attended the conference. Forty five distinguished speakers from India and Abroad viz. USA, U.K., Malaysia, Indonesia, Srilanka, etc., presented papers covering the following areas :

- Environment friendly economic recycling
- Value added products from plastics waste
- Energy recovery from plastics waste
- Development and use of bio-degradable plastics
- Environment and Waste Management
- Policy and regulations

The conference was sponsored by Indian

Centre for Plastics in the Environment (ICPE). Dr. A.N. Bhat and Mr. O.P. Ratra delivered talks on the subject and participated in the panel discussion to chalk out the time of action in future.

The conference concluded with Panel discussion. The Panel was chaired by Prof. V.S. Ramamurthy, Secretary, Department of Science and Technology, Govt. of India. The other distinguished panel members were:

1. Prof. Dilip Biswas, Chairman, Central Pollution Control Board.

2. Prof. S.M. Maity, Head, Centre for Polymer Science and Engg., IIT, Delhi
3. Dr. M.K. Harder, Leader, WERG, University of Brighton, U.K.
4. Dr. Abu Bin Amu, Director Technology & Engineering of Malaysian Rubber Board
5. Prof. A.K. Bhatnagar, Indian Institute of Technology, Delhi
6. Dr. A.N. Bhat, Director General, Indian Centre for Plastics in the Environment
7. Dr. R.K. Khandal, Director, Shriram Institute for Industrial Research. □

**INDIAN PLASTICS INSTITUTE
ANNOUNCES ITS
4TH INTERNATIONAL CONFERENCE
ON
"ROLE OF PLASTICS & POLYMERS
IN INFRASTRUCTURAL DEVELOPMENT"**

Mumbai : 4th-5th December 2003
New Delhi : 8th-9th December 2003

The focus areas are:

Buildings/Housings, Communication, Roads, Public Health, Transportation-Air, Railway, Roadways etc., Agriculture, Energy, Information, Water supply, Sanitation & Healthcare

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AWARENESS PROGRAMMES

ICPE has been active during the past 4 years in undertaking Awareness Programmes all over the country. As a result, ICPE has established itself in communicating the right message to the masses at large as regards plastics and environment is concerned. During the period January-March 2003, ICPE was provided a opportunity to conduct programmes for school students through exhibitions and receiving schools students in its office New Delhi on 14th February 2003.

NEW DELHI

14th Feb. 2003 : The Centre for Science and Environment organized a conducted tour of 24 students drawn from 5 Delhi schools to ICPE office New Delhi.



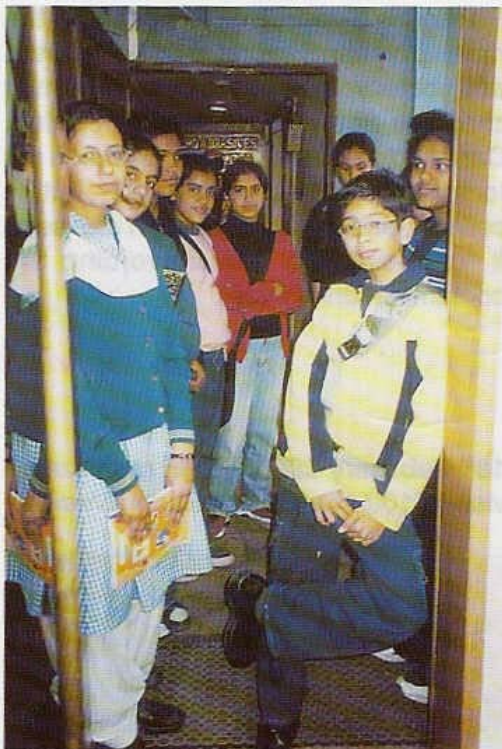
While welcoming the students to ICPE office they were briefed with the activities of ICPE and the subject of plastics in general. The students in their enthusiasm



asked all types of questions related to plastics and environment and clarified their doubts. During the question hour session, it appeared the students had all along been misguided about plastics including in respect of certain technical



facts. When told about the positive angle of plastics the students were surprised that there was nothing wrong with plastics environmentally. When informed that 90% facts are in favour of plastics, the balance 10% could only be eyesores because of the waste management issues, as plastics are visible in any



waste stream. Even for plastic waste management, there are technological options of disposal, which include recycling, reuse, energy recovery, and manufacture of lumber.

15th February 2003 : ICPE was invited by Sadhu Vaswani International School for Girls, to conduct a debate on "Plastics are Essential in our Daily Life - They are not necessarily a Menace". Twenty-One

SADHU VASWANI INTERNATIONAL SCHOOL FOR GIRLS, NEW DELHI



The Principal, Mrs Neeta Rastogi, addressing the students.



— Presentation by the students.



Students participated in the debate which was attended by students of class VI, VII and VIII. The Principal Mrs. Neeta Rastogi welcomed the participants and gave away the cash prizes to the winners.



The Principal giving away the prizes.

Early morning when we brush our teeth we use plastic bristles in the toothbrush. We use plastics bags when we go out



The prize winners with the Principal.

for shopping. Plastics are used for making storage containers e.g. Tupperware products. Even it is also used in medical field. Kidney and heart which are important organs of human being are first packed by plastic and then stored in a cool place for transplantation. In the end, I would rather like to say that plastics the basic necessity of life.

Anjali Tomar, VIII-B,

Plastics are essential in our daily life. The increasing human needs and desires and demand in the market has made the use of plastic essential. Plastics are very useful in our daily lives. Anywhere we see the most common thing is plastics. Almost everything in our daily life is made up of plastic such as furniture, carpets, utensils, telephones, refrigerators,

washing machine, doors and even clothes.

Kanika Ahuja, VI-B

Plastics are not necessarily a menace, all we are the people who made it a menace and if we want, we can make it useful for us by recycling and reusing it. Throughout 70's and 80's plastics are used everywhere in our daily lives.

Shreya Kaushik, VI-C

These days we also get plastic containers which are unbreakable and airtight. Even the pens which we use in daily life are made up of plastic. We cannot think of a life without plastic because it is useful to us in many ways. So I believe that plastic is a boom to society.

Tanisha Bajaj, VII-B

Plastics is thrown by the people in the running water thinking it to be useless and not recyclable thus blocking the river channels and creating water pollution. Care and precaution has to be taken not to throw the plastics in water but to collect it and put it in a dustbin and send it for recycling. Thus avoiding the contamination of water.

Gareema Bali, VIII-B

18th February 2003: ICPE organized a visit of 100 students of Sadhu Vaswani



International School for Girls to Plastindia 2003 Exhibition. The students were taken around various pavilions, including that of ICPE. They showed keen interest in the products, as also participated in Quiz Competition organized by BAYER India in its pavilion.



VADODARA

An Educational Workshop was conducted on 11th March 2003 at Community Science Centre, by Mr. N.N. Veer, Member Executive Committee – ICPE. The subject was Waste Minimization And Cleaner Production in Plastic Industry. It was organized by Small Industries Service Institute, Ahmedabad and Gujarat State Plastic Manufacturers Association.



To avoid cutting of neck during kite flying utilise Plastics carry bags.



An enthusiastic participating the workshop.

Mr. K.G. Ramanathan, President, Governing Council – ICPE during his visit to Vadodara on 31st March 2003 had discussions with Plastics in Environment Group at IPCL. He was briefed and conducted around by Mr. N.N. Veer, Member Executive Committee – ICPE



Mumbai Used plastic bags seen being transported to recycling centres.



Mr K G Ramanathan, releasing special stickers for plastic waste management to Mr J K Fitter, DGM(CA), IPCL.



Mr K G Ramanathan, being presented with an ECOPIE Club T-Shirt by Smt Rita Jadav Poo.

EFFECTIVE AWARENESS CAMPAIGN

or **misguiding advertisements**

Wholesome fruit or harmful hazard?

Whether they might harm you or your children, plastic bags are harmful. They are not biodegradable, polluting and cause health hazards.

Delhi Pollution Control Committee

WHAT IS BANNED?

Plastic Bags of less than 20 microns are banned.

Manufacture, sale and usage of recycled non-biodegradable plastic bags for carrying food items is also banned as per the Delhi Plastic Bag (Manufacture, Sale and Usage) and Non Biodegradable Garbage (Control) Act, 2000.

DELHI POLLUTION CONTROL COMMITTEE
4th Floor, GST Building, Karama Gate, Delhi - 110 006, Ph: 23091119, 23002020

Holy Yamuna: A place of worship or your garbage dump?

The Yamuna is the sacred river of Delhi. We should not let it become a garbage dump. It is a place of worship and a source of drinking water for Delhi. It is a source of life and a source of pride for Delhi.

DELHI POLLUTION CONTROL COMMITTEE

WHY USE WHEN IT IS BANNED?

We know that plastic bags are harmful for our health and the environment. Let us use alternative bags and containers for carrying things.

DELHI POLLUTION CONTROL COMMITTEE
4th Floor, GST Building, Karama Gate, Delhi - 110 006, Call Centre: 9824018600, Ph: 23091119, 23002020

Cow's Milk Rich in toxic dye.

The plastic bags that are used for carrying garbage are made of toxic dyes. These dyes are harmful to the health of the cow. The cow eats the garbage and the dyes get into its milk. This milk is then consumed by the people. This is very dangerous for the health of the people.

DELHI POLLUTION CONTROL COMMITTEE
4th Floor, GST Building, Karama Gate, Delhi - 110 006, Ph: 23091119, 23002020

WHY IS IT BANNED?

Recycled coloured plastic bags contain harmful colour pigments which, on coming in contact with food particles, makes food unfit for consumption, resulting in severe food poisoning, allergies and in extreme cases even death. Also their non-biodegradable nature makes them an environmental hazard.

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The Government of NCT Delhi, Department of Environment and Delhi Pollution Control Committee have during the past few years, launched awareness campaign against coloured plastic bags as also to promote Delhi Act through media advertisements. Though this campaign has been very effective, unfortunately there are misguiding statements published therein, which are not doing any justice to the campaign but are proving damaging and misguiding the consumers at large.

The MoEF Notification regarding recycled plastics bags is very clear so is the Delhi Plastic Bag (Manufacture, Sale and Usage) and Non Biodegradable Garbage Control Act 2000. There are no separate clauses banning the use of plastics bags in general or Saying "No To Plastic Bags". There is no statement either saying that "Plastic Bags are harmful to our Health and Environment and the use for alternative like jute or cloth bags is advocated". "Nor is there a statement that Plastic Bags contain toxic dyes that can

Holy Yamuna must be preserved and Garbage dumps not only be controlled but prevented, but plastic bags cannot be blamed for this.

If the stray cows (owned or disowned by someone in the society) visit garbage dumps, apparently in search of food since they are hungry and not fed by the invisible owners, plastic bags are not responsible, they open up the garbage bag to pick up eatables. The question of "Cow's Milk Rich in Toxic Dye" (Ref. Ad) is not only ill-conceived and ill-designed advertisement but instigating against sacred cows. When these stray cows are seen in the midst of garbage dumps they are also seen swallowing anything from waste paper, rags including plastics.

How to prevent stray cows visiting garbage dumps is the responsibility of the local Authorities. How to prevent the cows stray around is the responsibility of the invisible

जानकी भद्रावलि - पूजा से अथवा स्तनिके के लिए?

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DELHI POLLUTION CONTROL COMMITTEE

Plastic bags cannot be blamed for all the ills of the society, that is improper management of waste, throwing garbage in any open place. The responsibility is collective that is public at large and the local Authorities.

Effective Awareness Campaign for any social cause is welcomed but it should not be misguiding the consumers at large.

DO YOU KNOW

Handmade Recycled Plastics

Social Upgradation of waste plastic bags into Useful functional products



CONSERVE, a Delhi based NGO is devoted to help the communities in developing, formulating and implementing sound solid waste management practices through sustained advocacy of waste collection, segregation and recycling. The force behind this NGO is Mrs. Anita Ahuja, the President. This NGO is supported by Department of Environment, NCT Delhi.

Among its many useful community based activities the CONSERVE has during the past one year introduced innovative techniques of conversion of waste plastic carry bags into useful functional products. This has been done under eco-entrepreneurship development programme to help the environment and the urban poor especially women by utilizing their arts and crafts skills to fashion products through recycling.



Mrs Anita Ahuja, (L) seen with women workers of the project.

Appropriately termed "**HAND MADE RECYCLED PLASTICS**", the process of conversion into products of handicraft value is not only innovative but also unique. A range of products have been

designed and developed with the support from designers and the local skills, which include shopping bags, ladies handbags, purses and belts.

The process of conversion of waste plastic bags into products consists of the following steps:



1. Collection of used plastic bags (carry bags) through rag pickers, waste dealers including street collection.
2. Sterilizing these collected carry bags (which are of different colors and sizes) thorough washing with water followed by detergent and again water.
3. Drying of the washed bags.
4. Cutting of the washed and dried bags into various sizes and designs and arranging them into a pattern to build-up thickness of the plastic sheets required.
5. The pattern formed plastic sheet is then placed in between two separating fabric sheets and then two metal plates. The upper metal plate is pre-heated (150° C) and pressed manually as shown in the diagram. The plastic pattern formed sheet gets fused into one single sheet of desired thickness. This plastic sheet manufactured through fusion is the starting material for conversion into products of handicraft value as illustrated herein.



Depending upon the colours and shades, these plastic sheets are codified into gold, yellow, radiant, earth, green, aqua, pastel, distress, dark metal etc.

The novelty of the process is that it is environmentally clean and safe, so are the products designed, to handle and use.

There is good potential for such novel recycled plastic products since these address issues, which impact the

problems of polyethylene carry bags, seen littered around as eyesores. Their collection by rag pickers



and subsequent conversion into useful decorative and functional products will help generate revenue for the scavenging and recycling community. The process and products developed by CONSERVE, using waste plastic carry bags, deserve encouragement, upgradation and promotion through out the country.

Handmade recycled plastic handicraft products will find ready markets in India and overseas countries. □



Shows Its Versatility With Road-Tie Application

Berstorff, Florence, KY (European headquarters in Hanover, Germany), and Hyltec, Franklin, TN, have introduced a process for making railroad ties using polyethylene. Both companies are working with PolySum, Covington, LA, the company that developed the innovative application.

PolySum's "Tuff-Tie," in a standard size of 7 1/2 by 9 in by 8.5 ft, weighs 285 lb and is made of recycled HDPE with 50% virgin polyethylene. says Martin Mack, Berstorff vp. of operations. The potential market is huge, since about 19 million ties – mainly of creosote treated hardwood – are replaced each year in the U.S. alone.

Recycled wooden ties present environmental problems because of the creosote, while used HDPE ties can be recycled, notes John Bayer, managing director of PolySum. HDPE ties also have better mechanical properties and can be installed like wooden ones. They cost about \$ 60 each versus \$ 30 to \$ 35 for an oak tie, but last two to three times longer.

To produce them, a co-rotating twin-screw extruder feeds 3300 lb/h of gypsum-filled polyethylene to an accumulator, which sends melt to an 8-ft-long mold, one of 26 on a rotating manifold.

Berstorff provides the extruder, while Hyltec handles overall engineering and supplies the tooling.

PolySum expects to sign its first commercial contract this summer with a U.K. manufacturer involving 12 production lines costing about \$ 3 million each. PolySum hopes to operate three plants in the U.S., each with three lines. The first should start up in 2003. □

Courtesy: www.modplas.com

Wood Composites Are Expanding among Sectors

DEMAND FOR COMPOUNDS FILLED WITH WOOD FLOUR OR OTHER CELLULOSE materials is booming. In the U.S., there is continued growth, primarily in decking, but other applications are ramping up. Growth is even higher in markets where the compounds are only now emerging, such as Europe, South America, and Asia.

As applications beyond decking manifest, wood flour and other natural fillers are expected to find their way into materials other than post-consumer polyethylene terephthalate, which is currently the most common matrix material.

Wood-polymer compounds have been around for decades, but only in the last

decade has the market taken off, as machine, material, and processing developments enable higher production speeds. Exton PA-based consultant Principia Partners predicts demand in North America, the leading market for wood-plastics composites, will more than double between 2001 and 2006. Building products will remain the top end-uses, with demand surging from 500 million lb (227,000 tonnes) to about 1.1 billion lb (500,000 tonnes) in 2006, but consumption in transportation, industrial, and consumer applications will more than double.

There is potential beyond decking and extrusion

Bins of North Wood Plastics says the importance of natural-fiber-filled compounds is that they yield higher-stiffness materials with lower densities than are obtainable with mineral fillers. Higher stiffness translates into lighter, lower cost parts.

As wood-composites applications expand beyond decking, the number of non-PE-based compounds is likely to increase. Hughes says his firm's ABS- and ASA-based compounds, though more expensive, produce higher-quality end-products than with PE-, PVC-, and PP-based compounds. He says some customers are in higher-end applications, such as horizontal blinds, shutters, and portable-spa siding. Others are in commodities like fencing and railing, where they foam the profiles to lower per-length costs. □

CPSC Validates Use of DINP in Vinyl Toys. Scare Stories by Activists Put To Rest By Independent Scientists

Statement by the Phthalate Esters Panel of the American Chemistry Council February 22, 2003

The Consumer Product Safety Commission (CPSC) today voted unanimously to deny an activist petition to ban vinyl from products for children age 5 and under. □ The Commission has accepted the conclusions of its staff stating that there is "no demonstrated health risk from vinyl toys containing the plasticizer diisononyl phthalate (DINP)". DINP is the primary plasticizer in children's vinyl toys. The DINP/vinyl combination is ideal for many children's toys as it makes them flexible without sacrificing their durability, at reasonable cost. "We are pleased that rational, science-based decision-making has prevailed in this regulatory process", stated Marian Stanley, manager of the Phthalate Esters Panel. "For anyone willing to look at the evidence, the great vinyl toy scare is history. Five years of intense study by a panel of independent experts and the CPSC scientific staff, including some new detailed research on the mouthing habits of young children, has finally put the unfounded vinyl toy scare story to rest. The petitioners have had their concerns heard fully and fairly. Now it's time to move on. The Commission's final decision on this issue is based in part on a new study conducted on the mouthing habits of children. The CPSC staff analysis showed that even children who mouth toys the most (the 95th percentile) would ingest DINP at levels far below the acceptable daily intake level. The CPSC concluded that exposure to DINP does not pose a risk to children even if DINP were a component of all toys, rattles and teethers. □

Source : Vijay Mercha

Wood and natural-fiber composites are active in a broad number of segments

● **Building Products**

- Decking
- Windows/doors
- Fencing
- Siding and accessories
- Dimensional lumber
- Shingles
- Railing
- Decorative trim
- **Infrastructure**
- Boardwalks
- Pilling/docks/marinas
- Guardrails
- Railroad ties

● **Transportation**

- Interior panels
- Rear shelves
- Spare tire covers
- Truck floors
- Headlines
- Ducting

● **Industrial/Consumer**

- Pallets/crates
- Playground equipment
- Benches/tables
- Signage
- Trash receptacles
- Flooring
- RTA Furniture

Courtesy: www.modplas.com

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make it possible



PLASTICS ARE ENVIRONMENT FRIENDLY AND RECYCLABLE

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